MOBILE DEVICES – THEY ARE COMMANDING OUR ATTENTION

[Chapter 9 – Digital Minds v2]

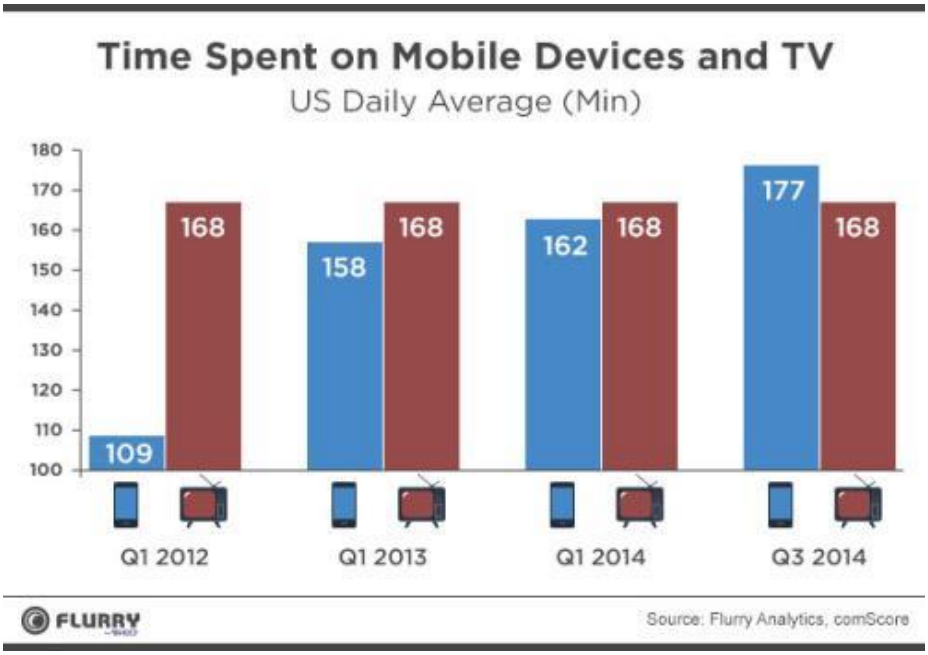
Eric Cook, MBA (WSI Consultant, USA)

Introduction

How Has Mobile Changed?

In the first edition of *Digital Minds* published in 2013, we wrote about the evolution of the "three screens" of communication as part of the section on mobile marketing. Starting with the *first screen* in the late 1920s when the television was conceived, we were taken online in the 1990s with the introduction of the World Wide Web and the *second screen* on the personal computer with the web browser. Then in 2007, Steve Jobs introduced us to the iPhone, which set the bar for all future mobile devices with the use of a touch-screen and apps –essentially creating the smartphone category, now known as the *third screen*. Until recently, the TV continued to command a majority of our attention, but with the growing popularity of the mobile device, that's all changing now.

Even back in the December of 2012, the report, *Mobile Apps: We Interrupt This Broadcast* the mobile app company, Flurry (now owned by Yahoo) predicted the future amount of time spent on mobile devices and their inevitable impact on traditional broadcast media. As the desktop was quickly becoming an object in the rearview mirror, the new target of the mobile device was overtaking television. Apps continue to steal timeshare from desktop web usage and in 2015 it finally happened: mobile has bumped the television from being America's *first screen*. That's right. According to the U.S. Bureau of Labor Statistics, we now are spending close to three hours every day on our mobile devices (two hours and 57 minutes to be exact), while time spent on TV has remained flat at two hours and 48 minutes. The media rating company, Nielsen, found that 84% of consumers are even using their mobile device as a supplementary "second screen" to the television. So even when consumers are watching TV, the mobile device is close by. Chances are you may even keep a tablet on the coffee table (like me) to use during commercials in your own household.



Whether you're a business owner, a personal user of mobile technology or both, one thing is certain – mobile is showing no signs of slowing down as the number one recipient of our digital attention. In this whitepaper we'll review some of the recent statistics that help reveal the emerging business opportunities around the mobile device, the growth of commerce over mobile (referred to as *mCommerce*) and how wearable technology is creating a whole new category of mobile devices. We'll also discuss how these devices are becoming more intelligent by knowing where we are - and how this is good for business - and what security concerns you need to be thinking about to keep all your customers' information safe.

While there are several areas where the mobile device plays an important role, (i.e. responsive web design), paid search advertising and how your mobile presence can impact search visibility (SEO). In addition, with the continued popularity of social networking and the number of people using social apps to engage vs. the traditional computer, the statement "social = mobile" certainly rings true now more than ever. What I want you to take away from this whitepaper is how much mobile has taken over our lives, affects the way in which we manage consumer information and ultimately get you up to speed on some of the current mobile technology trends so you can start thinking about how this could impact your business. So now that you've got an idea of what we'll focus on, let's get started… we've got lots to talk about!

State of the Mobile Device

To fully appreciate the magnitude of the mobile device and its impact on consumers, business and society in general, it's important to take a moment and review some of the current statistics surrounding mobile technology. Though you may not need convincing, these will certainly reinforce why it's now more important than ever to ensure you've developed a mobile strategy as part of your overall digital marketing plan.

In his 2015 Socialnomics video, Erik Qualman presents a variety of interesting statistics related to the social economy and evolution of the "digital consumer". I've been a fan of @equalman (in case you want to follow him on Twitter) for years, frequently sharing his Socialnomics videos at conferences and with clients to get them thinking about how consumers are shifting. While that video shares some compelling stats about mobile technology, Qualman recently came out with a companion video focused on mobile called Mobilenomics.

Did you know:

- That 90% of Tweets come from mobile devices, yet businesses spend less than 1% of their promotional efforts on mobile?
- That 70% of mobile searches lead to action within one hour, while it can take a month or longer on a desktop?

- That we respond to text messages on our phone in 90 seconds or less but take 90 minutes to do the same via email.

Think about it from your perspective: if you want to get a quick response from someone, do you send an email or text message?

Digital marketers today recognize the growing importance of mobile. According to a survey of global eCommerce digital marketers by eConsultancy and Adobe in early 2015, over 2/3 of respondents indicated they plan on increasing their investment in mobile strategies. Given that the average consumer checks their smartphone over 150 times per day[1], there's good reason for marketers to do what they can to get noticed via mobile.

Google found that 67% of consumers are more likely to make a purchase if a mobile site experience is positive, whereas 61% would leave a mobile site if they can't immediately find what they are looking for. This is further reinforcement to have a solid mobile strategy in place. Given that people are likely visiting your website every day on a mobile device, your site needs to be responsive and provide an enjoyable, user-friendly experience. With roughly 40% of online adults starting an activity on one device and finishing it on another, the process needs to be seamless for the visitor since we can no longer predict where a customer will start and stop in the process of investigating a business online.

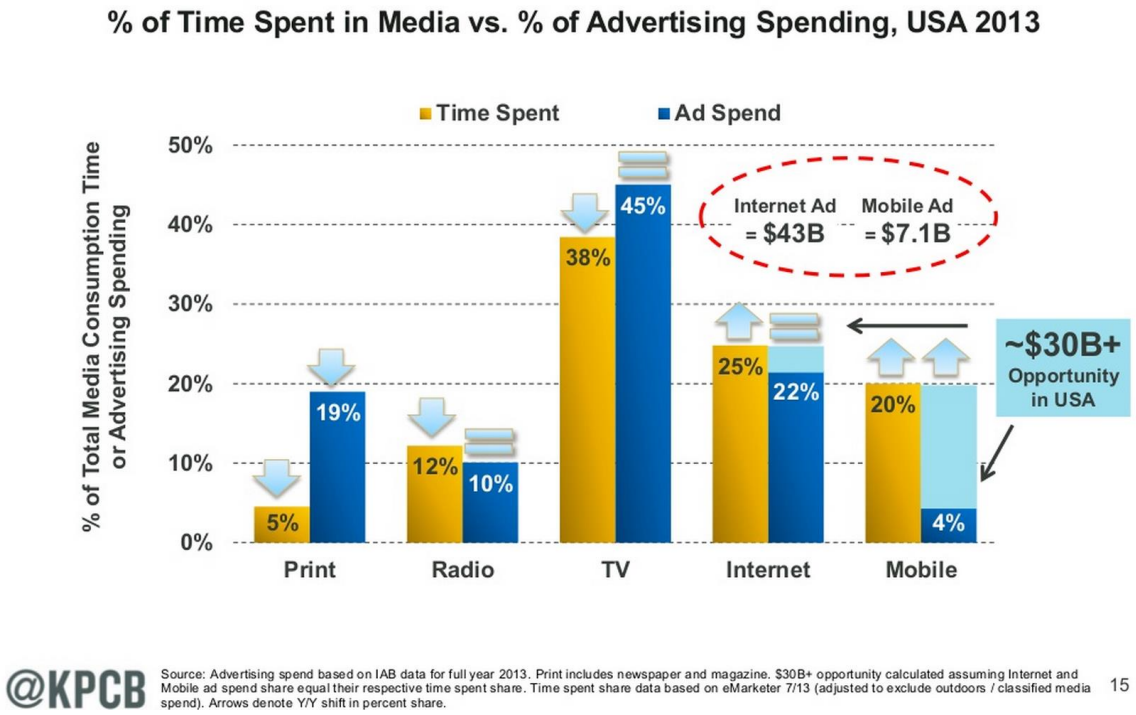
Today we use our smartphones to follow breaking news, get turn-by-turn driving directions, play music, listen to podcasts, watch videos, send text messages, track our workouts, check email, connect with friends via social media, play games, scan receipts, follow our travel itineraries, share photos, check in and share our location – and yes, sometimes even make an actual phone call to have a conversation. Today 64% of American adults own a smartphone, up from 32% back in 2011[2], and this number is even greater with the younger generations (as you can imagine).

To some, mobile is even becoming their "digital lifeline". You may not realize it, but there is a growing segment of smartphone dependent consumers who only have access to the online world through their mobile device, with 10% of American smartphone owners indicating they do not have any other form of high-speed Internet access at home beyond their phone's data plan! It literally serves the function of being their only way to get online. Further, just over 30% of adult smartphone users report having *limited alternatives*, making the smartphone an essential connection to the world of online information. Until the mobile device, this segment of the population was not online and totally unreachable with your digital marketing efforts. But now, thanks to the smartphone, they are able to access digital content – including information about your business, creating an entirely new potential customer segment.

A study conducted by the Pew Research Center, identified some of the more popular activities that smartphone owners performed over the past 12 months. These individuals were most likely to get information about a health condition (62%), access online banking (57%), look up real estate listings about a place to live (44%), research information about a job (43%) or look up government service information (40%). Sure social networking, text messages and email are common functions too, but think about how these other activities would have been accomplished just a few short years ago before the advent of the mobile device. You'd have to schedule an appointment with a doctor, call your banker, speak with a Realtor, search the employment ads in the newspaper or make a call to the necessary government office (and likely spend a lot of time on hold waiting for an answer).

[1] (Source: Altimeter)
[2] (Source: Pew Research Center)

With eight out of ten Internet users in the U.S. now owning a smartphone and almost half owning a tablet[3], there's a customer that is becoming increasingly less dependent on the traditional "desktop browser". Supporting this further, Mary Meeker, in her latest *State of the Internet* report, indicated that mobile advertising presents one of the largest opportunities in the U.S. due to the amount of time people are spending on their smartphones and the type of media that's being consumed. The value of this opportunity totals almost $30 billion, yet there is still an overwhelming dependency on traditional print advertising in the business community. As businesses discover the reach, power and measurability of mobile advertising, we expect this number to begin to shift with more ad dollars being spent in mobile.



Shopping and mCommerce

People are increasingly using their mobile devices to shop online and make purchases from the palm of their hand. This shift towards mobile commerce, known as mCommerce, is growing 42% annually over a four-year period according to Ipsos, a research firm hired by PayPal to study the impact of the mobile device on eCommerce. As a significant player in the eCommerce space itself, PayPal has seen mobile growth on its own network go from 1% of payment volume in 2010 to more than 20% last year. The report also found that a third of online shoppers made at least one purchase with their smartphone in the past year, and 20% did so via a tablet. Outside the U.S. that number is even greater. For example, 68% of online shoppers in China used a smartphone to make a purchase in the last 12 months. In a similar study, PricewaterhouseCoopers (PwC) found that just about half (47%) of consumers globally have made a purchase via their smartphone, up from 30% just two short years ago, with the leading countries being China, Turkey and the UAE.

[3] (Source: GWI Device IQ 2015)

according to Ipsos. This means whether your business is located in the U.S. or is in other countries, mCommerce is an opportunity you cannot afford to ignore.

When examining what activities consumers are performing on mobile devices in relation to mCommerce, PwC found the following related to retail activity:

- 49% -- Research products
- 49% -- Compare prices with competitors
- 31% – Locate a store
- 25% -- Use a coupon
- 18% -- Check funding available before making a purchase
- 16% -- Access loyalty/rewards program
- 13% -- Scan a QR code
- 12% -- Pay at cashier
- 12% -- Receive a location-based offer
- 11% -- Check in via social media
- 4% -- Tweet the retailer about product or offer

This trend is expected to continue as Goldman Sachs estimates the total number of people who will make a purchase online with their mobile phone will be in excess of 530 million people worldwide (145.9 million in the U.S. alone according to eMarketer). Global sales will soar to $626 billion by 2018, almost surpassing sales from *all* eCommerce transactions in 2013, which were $638 billion.

In the U.S. alone, Statistica reports that mCommerce volume will rise to $133.35 billion by 2018, an increase of almost 130% over the 2014 volume of $58.07 billion. It's also worth noting, however, that mobile shoppers are also multi-device shoppers. GWI found that 90% of mobile shoppers also made purchases on other devices with the most common "other device" being desktop computers. The fact that mCommerce and eCommerce lines are still somewhat blurry as consumers are obviously comfortable on both platforms, further reinforces the importance of a seamless online experience, whether they start, end or visit mobile during the purchase journey. However it shakes out, it's evident there are billions of dollars on the table for businesses that are prepared to compete in the mobile economy.

Whew. That was a lot of numbers, percentages and statistics to digest. But even if you're not a "numbers person" the takeaway here is that your business sales on a mobile device has the potential for significant growth over the next several years.

Getting your marketing message seen by mobile shoppers means your business will likely need to provide discounts in your mobile advertising to get the best results (and grab their attention). In fact, the top three most attractive mobile advertising tactics that consumers respond to are: retail-related mobile ads (that included information about discounts and sales) product reviews and product information.

JCPenny – A Real World mCommerce Example

What may be thought of by some as the "Oldsmobile" of the retail industry, in 2015 JCPenny announced the launch of a new and innovative feature to their mobile shopping app that allows customers to use their device's camera to streamline the product search process. This new functionality allows users to take a photo of a product and search their massive database of products, across multiple categories with image recognition technology. Results will provide product information, consumer reviews, and even coupons to entice a purchase as well as allow instant purchase in just a few taps of the screen.

In an interview with *Mobile Commerce Daily*, JCPenny's EVP of omnichannel, Mike Rodgers, shared the company's insights on their mobile-strategy.

> "App users don't like to spend a lot of time navigating around to various screens to find what they are looking for," says Rodgers. With image recognition, the customer can simply snap a photo and let technology find items that most closely match and are available in their inventory. In addition to working on products (like your friend's new shoes – snap a pic and see if you can get them at JCP.com), the app will also work on UPC barcodes, making it possible for the customer to take action immediately. He continues, "whether a customer is shopping for a blender, dress, necklace or shower curtain, our new image recognition feature will find that exact item or similar items."

With consumers already relying on mobile phones to find the latest deals online, it's their goal to make the mobile app a virtual extension of the total shopping experience.

Wearables Add Enhanced Functionality

With the recent introduction of the Apple Watch, the Cupertino giant has formally entered the wearable market and some would say has "legitimized" all of the prior wearable efforts from other vendors by stepping into the ring. But prior to Apple joining the wearable party, we've had smart devices - beyond the mobile phone - for quite some time. Personally, I've had a Fitbit on my wrist tracking my steps and daily activity since before the release of the first edition of *Digital Minds* back in 2013. Google's Glass, which is currently under re-development, (to produce a less expensive, consumer-friendly version), took wearable technology and put it right on your face. With Glass it was possible to record your world in a first-person, hands-free way. This evolution will continue as wearable technology develops further. In February of 2015 Cisco Systems forecasted the total number of global wearable connected devices would reach 578 million by 2019 compared to 109 million in 2014. As you can see, there are certainly big expectations for the growth of wearable technology over the next several years.

As a continuation to the mCommerce section you just finished reading, the wearable is positioned to become the next mobile payment device. When it comes to making a purchase, Stratos found that among U.S. smartphone users, more than two-thirds would prefer to make their purchase using a wearable device rather than their mobile device when making an in-store purchase. That's what Apple Pay is betting on, with users being able to authorize a transaction with the "flick

of their wrist" on an Apple Watch and allow consumers to leave their credit card and smartphone in their pocket when shopping.

While we'll continue to see the traditional on-your-wrist devices such as smart watches and fitness trackers, we are already starting to see other types of wearables enter the market. All of which these devices are gathering big data about what we do, how fast we do it, where we are doing it (more on that later) and who we are doing it with.

Writing for GovTech.com, Andrew Sheehy presents several areas where wearable technology stands to provide the biggest benefits. His article, entitled *8 Mind-blowing Uses of Wearable Technology (Seriously…)*, provides insight on some of the ways that wearables will play an important role in our daily lives. He categorizes the technology into three areas, body sensors, smart glasses and smart watches, all of which present an opportunity to tap into the ever-growing presence of artificial intelligence (AI) services like the assistant technologies of Google's *Now on Tap*, Apple's *Siri* and Microsoft's *Cortana*. Even IBM is providing access to mobile app developers to the Jeopardy-champion *Watson*, their own supercomputer platform. Through our mobile devices and wearable connections we'll have instantaneous access to information by asking, viewing or maybe even just thinking something to get an answer!

Imagine the industries that could be impacted (for the better) with creative use of wearable technology. Sheehy proposes massive shifts in healthcare, insurance, diet and nutrition, police and security, outdoor purists' navigation, fitness and more. Taking healthcare as just one example, we have body sensors that can collect data such as stride length and step count (for steps and activity), heart rate, respiration rate, skin temperature, breathing rate, sleep quality, calories burned, force of impact to the head in contact sports, speed and acceleration, etc.

Taking this data into consideration:

- One could employ the skills of a personal trainer (from anywhere in the world) to get healthier
- Medical issues could be tracked by physicians remotely, allowing patients to return home more quickly (yet still be under the watch of their doctor)
- Insurance companies could justify lower rates by having access to more accurate data on individuals' wellness activities, etc.

Of course the thought of providing access to this type of data presents several security concerns, which will be addressed in more detail at the end of this whitepaper.

As mentioned earlier, Google's focus on Glass has shifted in recent months due to slow consumer acceptance and the $1,000+ price tag. Yet they continue to play with heads up display (HUD) style wearable technology. In what was seen as a "poke" at Facebook, shortly after the social networking giant announced their $2 billion acquisition of Oculus Rift, the virtual reality headset designed to transport you to your own virtual reality world, Google came out with their own low-tech version called Cardboard. Costing the company nowhere near $2 billion (and yes, it's made of *cardboard*), this device is designed to turn your smartphone into a 3D viewer and project specially-designed apps to provide a virtual experience. With one of their Cardboard apps, you can magically transport yourself into the middle of a Paul McCartney concert and actually "look around" to see the crowd and Sir Paul on stage right before your very eyes!

Released at Google's 2014 I/O Android developer conference, Cardboard is just over a year old now. In 2015 at I/O Google announced a companion device called Jump to produce immersive video content, which holds 16 GoPro cameras in a large circle, allowing users to create a complete 360-degree experience. If your business is one that relies on providing a high-quality visual experience, just imagine what this type of technology could do if the visual wearable trend continues. Their plan is to provide special YouTube viewing options for these Jump-created videos that will stream directly to your smartphone sitting on your face in a Cardboard device. Think of what that could mean not only to the movie industry, but for businesses that rely on the visual experience to sell their products, such as real estate, travel and tourism, luxury items, etc.

As the wearable market expands, one thing is for sure: we'll have a wealth of data at our fingertips on what consumers are doing. Research according to Statista indicates the data traffic of wearable devices was 15 petabytes per month in 2014, growing to 277 petabytes per month by 2018. When you think that we'll have devices like smart watches, smart glasses, heads-up displays (HUD), health and fitness trackers, etc., the savvy business will need to figure out ways to manage and put this data to work for tangible business results.

Where Are You? Your Mobile Device Knows

One of the advantages of a mobile device to business owners, particularly if your customers have to come to your business, like a restaurant, is that GPS technology is location aware. For GPS to work properly, however, you typically need to be outside with a clear line of sight to the sky, as GPS location depends on satellite signals and the ability for your device to be found to work properly. This is still the main way in which our phones know where we are today, and is used for things like turn-by-turn driving directions or location-based searches. GPS makes it possible for your phone to answer with relevant results when you ask the question, "Siri, where is the closest ATM?" when you need some cash.

In the first edition of Digital Minds, I provided an example of how I personally took advantage of a Foursquare offer through a partnership with American Express to save 15% off my breakfast while on vacation in San Diego. While that's still very much possible, although this time around you'll have to also use their Swarm app to complete the check-in process, we're now seeing these types of services proactively push notifications while you're out and about and maybe driving or walking by a place of interest. This technology, sometimes referred to as geo-fencing, allows business owners to create hotspot areas based on GPS coordinates. When someone enters that area, your message can be pushed to their mobile device (assuming they have opted-in for these types of specials or promotions). For businesses, this is a great way to get the customers' attention and make your business get noticed.

Google Think, the search giant's focus on what's next for businesses in the digital space, found in a recent survey of mobile users that 85% of them would be more likely to shop in stores that offered personalized coupons and exclusive offers. Just imagine if you could take the location of your customers or potential customers and use that knowledge to drive them into your store or engage them in a more immersive buying experience once they arrive, like specials or promotions.

One company that is using this to their advantage, and to the advantage of their customers, is Larky. Working closely with financial institutions like community banks and credit unions, they provide an financial institution with the ability to offer special rewards and offers that appear when someone is in the area and steps into the geo-fence, signaling to the Larky app an offer can be presented on behalf of the business. To take advantage of the special offer, all the customer needs to do is use that financial institution's debit or credit card to take advantage of the discount. You can see how this creates a win-win since the financial institution promotes their clients, people shop locally and by supporting their bank or credit union by using their card, they save money.

The mobile conference app, Topi, also uses geo-fencing technology for event organizers to define an event location. So when the app is downloaded, it automatically knows which event you're attending based on where you're standing, making registration much easier while increasing attendee participation and convenience.

But what happens if you're already inside a store or someplace where GPS just won't work? There have been many times, I'm sure, where this has happened to you. While most of the time it's noticeable because you likely no longer have reception for email, text messages or placing a phone call, your location is unavailable now too. In 2013 the folks at Apple thought of this very issue and introduced their iBeacon protocol, which uses Bluetooth low energy (BLE) proximity sensors to transmit a unique identifier from your mobile device. Now, even without GPS, your location can be identified, allowing for location-specific trigger-events to be pushed to your mobile device and vice-versa.

Now referred to generically as beacon technology as other devices have implemented similar capabilities, imagine that same retail example of walking into a store to make a purchase. While GPS capabilities on my phone knew I was walking down the street where the local cycling shop is located, with beacon capability enabled, the store can get some information about me from my device. When enabled (assuming it's been enabled in the device's privacy settings), the store knows my name, what other purchases I may have made in the past, if I'm subscribed to their newsletter or what type of cycling I like (mountain bike, road racing, triathlons, etc.). This information can communicate back to the shop's computer system so they can see how many times I come to the store before making a purchase, or even what areas of the store I spend the most time in. If I've been in several times and have spent most of my time over by the fat tire bikes but have not made a purchase, maybe it's time to send me a special offer to convince me that now's the time to make that purchase!

Since beacon technology can be adjusted for sensitivity, you can have it pick up only:

- **Very close signals:** Such as standing at the checkout counter prompting me to like the business on Facebook or sign up for their newsletter
- **Mid-range signals (within a few meters):** When I'm in the fat tire section of the store
- **Far away detection:** Like if I'm walking by the outside of the store or have just entered the front door.

This same capability can even be used in the conference example mentioned earlier, providing event organizers valuable information on which sessions people attend or which vendor booths get the most traffic.

For businesses that put beacon technology to work and get customer adoption, the possibility of re-creating the famous scene from the 2002 movie *Minority Report* may be closer to reality than you think. If you've not seen the movie (or maybe need a refresher – it was 13 years ago after all), Tom Cruise's character walks by a billboard and it magically recognizes him to quickly customize the marketing message. Just imagine if your customers could get this level of personalization when they enter your business. "Hey Eric… that fat tire bike you've been looking at is on sale today! How about a test ride?" That might just be the message that I need to see to get me to say "I'll take it!"

What About Security?

By now you may be thinking, "So I can use mobile devices to make payments, track personal health information and tell the world where I am even when GPS devices can't see me… that's a lot of personal information. How secure is all of this?" Good question, and a very necessary one as petabytes of big data about us is being collected with very little effort on our part. The first step is to make sure that you have some sort of password or way to protect your device. Whether you require a fingerprint like with the iPhone or new Samsung devices, have to draw a pattern on the screen or are using a numerical PIN code to unlock your device, that's the minimum first line of defense.

Not enough security for you? Well if you happen to live in China, you could give the new ZTE Grand S3 a try and unlock your phone with your eyeball. That's right, this device is the first to offer retinal detection as a means to unlock the phone by using the unique pattern of blood vessels in the back of your eye as your "security code". This ocular-based means of identity protection can also be found in iris detection services as well, which are starting to rely on a more advanced form of biometric identification than just a fingerprint.

With the initial discussion about mCommerce, it's also worth noting some of the security steps being taken when it comes to protecting your financial information. With the number of data breaches and credit card numbers being stolen from merchants throughout the U.S. like Target, Home Depot and others, consumers are becoming more aware of the risks associated with their digital transactions. When we push the purchase capability to our mobile devices that opens up even more risk.

The good news is that services like Apple Pay and Google Wallet are using what's called "tokenization" as part of the payment process. At a very high level, this means that while your credit card information is being used as part of the transaction, it's not transmitted during the purchase process and remains safely behind the scenes. Through the cooperation with the bank, payment service and the merchant, a one-time code, called a *token*, is created that authorizes the transaction. While the token may be stored at the merchant after the transaction is completed, if stolen it's useless and was only good for that one transaction. This makes the likelihood of a breach revealing customers' information significantly less, even eliminating it all together in most cases. Given that in the first three quarters of 2014 global payments and transaction startups raised a combined $1.18 billion through 75 funding deals, it's evident the payment space realizes the importance of protecting the transaction and making mCommerce not just easier, but more secure.

Conclusion: What's Next?

That's a good question. When it comes to the mobile device the marketing possibilities are limitless. Hopefully this whitepaper has at least got you thinking about some of the ways that your business should be expanding its mobile strategy and leveraging some of these new mobile technology advances. First, ask yourself the question - although it might be better to ask your customers:

- Are we easy to do business with on a mobile device?
- Can our customers find our information quickly?
- Can our customers make a purchase for our products/services online
- Are we even visible when someone goes to their mobile looking for what we do?

Also think about some of the other mobile devices that go beyond the smartphone and if they would have a place in your overall mobile strategy. And finally, while mobile certainly is a big component of a digital strategy, consider how it fits with the other digital marketing strategies to provide a seamless and comfortable experience for your customers and prospects. It's now the number one device, so let's treat it that way and give it the attention (and budget) it deserves!

About the Author

Eric Cook, a former community bank executive of 15 years, now considers himself a digital strategist and works with clients to help them better understand and leverage the power of the Internet as a strategic business tool. An award-winning web designer with WSI, Cook is also a sought-after, nationally-recognized speaker in the financial services industry, hosts a weekly webinar show called Free Webinar Wednesdays and is a graduate from the Graduate School of Banking at the University of Wisconsin in Madison, WI, USA in 2003. He now serves on GSB's faculty teaching on the topics of social technology. Cook earned his MBA in 1999 and holds undergraduate degrees in business administration and psychology.

He helps his clients in the areas of web development, search marketing and optimization, social media strategies, email marketing and "big-picture" digital strategic planning. Cook is a member of the National Speakers Association. When he's not helping his clients succeed on the Internet, he can typically be found on one of his many bicycles training for his next triathlon or mountain bike race.

About WSI

WSI is a digital marketing company with a strong international presence. Our Digital Marketing Consultants use their knowledge and expertise to make a difference for businesses all around the world. Headquartered in Toronto, Canada, we also have offices in over 80 countries. We're a powerful network of marketers who strive to discover, analyze, build and implement digital solutions that win digital marketing awards and help businesses succeed online.

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