DIGITAL OMNIVORES:
How Tablets, Smartphones and Connected Devices are Changing U.S. Digital Media Consumption Habits

OCTOBER 2011

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Executive Summary

Today’s digital media environment is rapidly evolving, driven by the proliferation of devices people use to consume content both at home, at work and on the go. Not too long ago, consumers depended solely on their desktop computer or laptop to connect online. Now, a growing number of consumers are likely to access a wide variety of digital content across a multitude of devices on a daily basis. With smartphones, tablets and other connected devices, consumers have become digital omnivores – not just because of the media they consume, but also in how they consume it. Cross-platform consumption has created a vastly different digital landscape, and it is one that requires insight into both the individual usage of devices as well as the nature of their complementary use.

As consumers move toward an increasingly fragmented device diet, stakeholders across the industry are confronted with a growing number of questions, challenges and opportunities. What is the extent to which these devices have penetrated and are changing consumers’ media consumption habits? How does one efficiently and effectively reach these digital omnivores in a meaningful way? As this report analyzes the impact of devices that connect consumers beyond the computer, it aims to shed light on the direction of the ever-evolving digital media landscape.

Several of the report’s key findings are summarized below:

- **Digital omnivores are a global phenomenon.** In August 2011, five global markets (Singapore, UK, U.S., Japan and Australia) had more than 5 percent of Internet traffic coming from non-computer devices, with Singapore leading the way at 7.2 percent.

- **Mobile phones drive digital traffic around the world, while tablets are gaining steam.** The share of non-computer traffic for the U.S. stood at 6.8 percent in August 2011, with two-thirds of that traffic coming from mobile phones and tablets accounting for much of the remainder.

- **Increased WiFi availability and mobile broadband adoption in the U.S. are helping drive connectivity.** In August 2011, more than one third (37.2 percent) of U.S. digital traffic coming from mobile phones occurred via a WiFi connection. This percentage grew nearly 3 points in just the past three months. On the other hand, tablets, which traditionally required a WiFi connection to access the Internet, are increasingly driving traffic using mobile broadband access. In August, nearly 10 percent of traffic from tablets occurred via a mobile network connection.

- **Today, half of the total U.S. mobile population uses mobile media.** The mobile media user population (those who browse the mobile web, access applications, or download content) grew 19 percent in the past year to more than 116 million people at the end of August 2011.
The growth in mobile media use is driven by the increase in smartphone adoption. In the U.S., smartphone adoption has grown more than 50 percent in the past year, with 36.1 percent of Americans age 13 and older now using smartphones.

The iOS platform has the largest share of connected devices and smartphones in use in the U.S. Although the Android platform accounts for the highest share of the smartphone market (43.7 percent in August), its total OS audience is eclipsed by the Apple iOS audience. The iOS platform had the highest share of connected devices and smartphones in use at 43.1 percent, while Android accounted for 34.1 percent of the total mobile and connected device universe.

The iOS platform also accounts for the largest share of Internet traffic in the U.S. When measuring market share of Internet traffic by platform, iOS accounted for more than half (58.5 percent) of the share of total non-computer traffic in the U.S. Android OS ranked second delivering 31.9 percent of overall non-computer traffic in August.

iPads dominate among tablets in driving digital traffic. In August 2011, iPads delivered 97.2 percent of all tablet traffic in the U.S. iPads also account for a higher share of Internet traffic than iPhones (46.8 percent vs. 42.6 percent of iOS traffic).

In the U.S., tablet users display the characteristics of early technology adopters: young males in upper income brackets. In August, 54.7 percent of all tablet owners were male and nearly 30 percent were age 25-34. Nearly half (45.9 percent) of tablet owners belonged to households earning $100K and more.

Nearly 3 out of 5 tablet owners consume news on their tablets. 58 percent of tablet owners consumed world, national or local news on their devices, with 1 in 4 consuming this content on a near-daily basis on their tablets.

Communication activities were central to tablet usage. 3 in 4 tablet owners accessed email on their tablet device in September with 1 in 3 doing so on a near-daily basis.

Tablets facilitate real-time social networking. Nearly 3 in 5 tablet owners updated their social networking status or commented on others’ statuses on their device during September, while slightly less than half shared their location using a location-sharing site.

Nearly half of tablet owners made or completed a purchase on their tablet. Tablet owners exhibited significant use of their devices during the entire online shopping process – from initial planning, conducting product and store research, making price comparisons, to transacting. In the past month, more than half of tablet owners looked up product or price information for a specific store (56 percent) and read customer ratings and reviews while on a tablet (54 percent).

The incremental reach through mobile and connected devices should not be underestimated. In the case of a publisher like Pandora, the incremental reach of additional channels, such as connected devices, is significant. In August 2011, the additional mobile and connected device audience for Pandora accounted for more than half of its total audience.
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Methodology and Definitions

The *Digital Omnivores* report utilizes data from products within the comScore mobile suite of services including MobiLens, Device Essentials, Total Universe and a custom survey on tablet users’ behaviors.

**comScore MobiLens**

MobiLens provides market-wide insight into mobile digital media consumption, brand-level audience metrics, and details of device ownership and technology penetration. Using proprietary data collection methods, we survey nationally representative samples of mobile subscribers age 13+ in the U.S., UK, France, Germany, Spain, Italy, Canada, and Japan. The MobiLens sample is substantial enough to provide projected data for sub-segments as small as 1 percent of mobile subscribers. The MobiLens’ sampling and survey methods undergo extensive analysis and market validation including comparisons to known network operator market shares, leading handset model shares, downloading activity, and other usage metrics. For 2011, the estimated monthly survey completes utilized for this report are 10,000 mobile phone owners in the U.S. For the following analysis, the three-month average figures amount to a sample of 30,000 mobile users. *For more information, please visit: [http://www.comscore.com/Products_Services/Product_Index/MobiLens](http://www.comscore.com/products_services/product_index/mobilens)*

**comScore Total Universe**

comScore Total Universe report provides audience measurement for 100 percent of a site’s traffic, including usage via mobile phones, apps, tablets and shared computers such as Internet cafes. This measurement capability enables publishers and advertisers to understand digital audience sizes in a cross-platform environment and address incremental reach and audience duplication across platforms. Data used in this report utilizing Total Universe is designated as Beta. *For more information, please visit: [http://direct.comscore.com/](http://direct.comscore.com/)*

**comScore Device Essentials**

comScore Device Essentials provides insight into digital traffic share across all devices worldwide, offering detail into device characteristics, connection type, and category consumption. The product is based on the comScore Unified Digital Measurement (UDM) approach, measuring browser-based page views coming from computers, mobile, and other connected devices to more than one million domains tagging with comScore. Device Essentials also utilizes the comScore Client Focus Dictionary to segment connected device usage into content categories. *For more information, please visit: [http://www.comscore.com/Products_Services/Product_Index/Device_Essentials](http://www.comscore.com/products_services/product_index/device_essentials)*

**comScore Tablet Advisor**

This report utilizes data from a custom comScore survey on tablet usage in the U.S. The survey was conducted from September 22, 2011 to September 28, 2011 with a sample of 642 U.S. respondents age 18 and older that owned a connected device. The resulting survey results were statistically balanced to be representative of the total U.S. mobile phone and connected device owner population.
Today’s Connected Consumer

The Mobile and Connected Device Landscape Worldwide

Mobile phones began a worldwide revolution when they provided consumers with the first experience of connecting online away from a computer and a fixed Internet connection. The development of smartphones took the power of mobile technology a step further and shifted consumers’ expectations for accessing digital content. Now, a new movement appears to be on the rise as new devices such as tablets, gaming consoles, and e-readers – collectively known as “connected devices” – gain popularity and are increasingly integrated into daily digital life. Although online content consumption continues to occur primarily on computers, mobile phones and other connected devices are gaining traction as additional sources of online traffic, particularly in mature technology markets.

In an analysis of Internet traffic – measured as browser-based page views – from ten selected global markets in August 2011, Singapore led in having the highest share coming from non-computer sources (i.e. connected devices and mobile phones) at 7.2 percent. The United Kingdom and United States followed closely, each with 6.8 percent of total Internet traffic coming from mobile and connected devices.

1 Connected devices are defined as tablets and other web-enabled devices, such as gaming consoles and media players.
2 Internet traffic is measured here and throughout the paper as browser-based page views going to more than a million domains tagging with comScore from computers, mobile and other connected devices.

Share of Traffic from Non-Computer Devices for Selected Markets
Source: comScore Device Essentials, August 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>Traffic Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>7.2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.8%</td>
</tr>
<tr>
<td>United States</td>
<td>6.8%</td>
</tr>
<tr>
<td>Japan</td>
<td>5.8%</td>
</tr>
<tr>
<td>Australia</td>
<td>5.3%</td>
</tr>
<tr>
<td>Canada</td>
<td>4.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>3.9%</td>
</tr>
<tr>
<td>India</td>
<td>3.7%</td>
</tr>
<tr>
<td>France</td>
<td>2.3%</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.0%</td>
</tr>
</tbody>
</table>
Mobile Phones Drive Non-Computer Digital Traffic

In these markets, mobile phones drove the majority of non-computer digital traffic, in part due to the growth of certain mobile market enablers – including smartphone ownership, 3G/4G network use, and unlimited data plan subscriptions – in many markets. In the U.S., two-thirds of non-computer traffic (4.4 percent of total traffic) in August 2011 came from mobile devices, driven in large part by the use of smartphones, which accounted for more than 96 percent of mobile Internet traffic.

Although feature phones only contribute a small percentage of mobile traffic in more digitally mature markets, they facilitate a higher share of traffic in others. India stands out as a unique example of a country with the highest share of non-computer traffic originating from mobile devices, comprising 92.0 percent of non-computer traffic. A closer look shows that feature phones drove most of this traffic, at 73.1 percent of all non-computer traffic.

![Mobile Share of Non-Computer Traffic for Select Markets](chart)

Source: comScore Device Essentials, August 2011
Tablets Deliver Nearly 1 in 4 Non-Computer Page Views in Selected Markets

A closer look at digital traffic in five markets (Australia, Canada, Singapore, UK, and U.S.), where mobile and connected devices account for a fairly significant share of traffic, provides more detail into the extent of penetration for each device type. With the exception of Canada, mobile devices accounted for more than 60 percent of non-computer traffic in all these markets. Next to mobile, however, tablets contributed the largest share of traffic.

Among the five markets, Canada showed the highest percentage of non-computer traffic coming from tablets at nearly 40 percent. Singapore followed, with tablets contributing 34.4 percent of non-computer traffic. In Australia, the U.S., and UK, tablets accounted for at least 24 percent of non-computer traffic. Across these markets, nearly 1 in 4 page views made on mobile and connected devices came from a tablet. Other web-enabled devices (which include e-readers, gaming consoles, and other handheld devices) accounted for the smallest share of digital traffic in most markets.
U.S. Digital Landscape Overview: Tablets Fuel Increase in Non-Computer Share of Traffic

As one of the world’s most mature technology markets, the U.S. currently exhibits one of the highest percentages of non-computer traffic seen among markets. In August 2011, the share of non-computer traffic for the U.S. increased to 6.8 percent from just 6.2 percent at the end of the previous quarter. The largest percentage from this share came from mobile devices, which drove 4.4 percent of total digital traffic in the U.S. The second largest driver of non-computer traffic was the tablet category, contributing nearly 2 percent of total traffic.

As the share of U.S. non-computer traffic rose over the past four months, the percentage of that traffic driven by tablets has risen from little more than 20 percent to nearly 30 percent. In May 2011, 22.5 percent of non-computer traffic came from tablets. By August 2011 that figure had grown to 28.1 percent, eating into the share of traffic garnered by mobile devices and other web-enabled devices. Mobile, which continues to contribute the highest percentage of traffic among non-computer devices, showed a 3.8-percentage point decrease in its share of non-computer traffic since May 2011. Similarly, other web-enabled devices saw nearly a 2-percentage point decline.
Increased WiFi Availability and Mobile Broadband Use Drives Consumption on Devices

Until recently, mobile phones were the only devices supported by networks for wireless connectivity, confining the use of connected devices to areas with WiFi availability. Accordingly, the use of tablets and other web-enabled devices were predominantly fueled by WiFi connections at home and work locations. However, the growing availability of mobile broadband options and the proliferation of WiFi hotspots in public areas are changing the way people go online today.

In August 2011, more than one third (37.2 percent) of digital traffic coming from mobile phones was attributable to a WiFi connection. This percentage grew nearly 3 points from the end of May 2011. On the other hand, tablets, which traditionally required a WiFi connection to access the Internet, are increasingly driving traffic using mobile broadband access. In August 2011, nearly 10 percent of traffic from tablets occurred via a mobile network connection. While tablet traffic coming over mobile broadband has only marginally increased in the past four months (by less than a percent), the general upward trend reflects the market’s openness to greater mobile broadband use on tablets.
Interestingly, even within the same device type, there are marked differences in the way users connect online. Compared to Android platform users, iOS users generate a substantially higher percentage of digital traffic over WiFi connections, regardless of device type. 47.3 percent of all iPhone traffic came over a WiFi connection, compared to only 21.8 percent of traffic on Android mobile devices. Similarly, a higher percentage of traffic came via mobile network access on Android tablets, compared to only 8.5 percent of traffic on iPads. The disparity between iOS and Android WiFi usage could be due to multiple factors, including a wider availability of unlimited data plans for Android users and a traditionally higher propensity for iOS users to utilize WiFi for streaming entertainment content.

![Connection Type by Device and OS](Image)

Source: comScore Device Essentials, U.S., August 2011
Digital Consumption by Day Part

An analysis of the way consumers in the U.S. viewed news content on different devices throughout the course of a day demonstrates the influence devices have on the way people consume content. On a weekday morning, news sees an equal spike in consumption across computer, mobile, and tablet devices. Throughout the course of the day, however, a higher share of news is consumed over computers, due to high workplace computer activity. Tablets had the highest relative usage during the nighttime hours, peaking between the hours of 9:00 PM and midnight, which suggests that people probably favor tablet usage as they retire to the couch or bed at the end of the day.

These device usage dynamics change on weekends, as people are less likely to be spending as much time on their computers in the day. A spike in use similar to the one seen across computers, mobile, and tablet devices on a weekday morning can be seen on weekends. However, news consumption declines for all three device types in the middle of the day and remains at the same steady level for the most part. Tablets see a relative increase in activity at night, but not to the same degree as on weekdays.
The Maturation of the Mobile Media Landscape

Smartphone Adoption Drives Growth in Mobile Media Consumption

Mobile media consumption is a central chapter in the consumption fragmentation story that is playing out across the country and around the world. As the first mass adopted platform that people used to consume digital media away from desktops and laptops, mobile devices laid the foundation for the shift in digital consumption we are witnessing today. Further, mobile still reigns as the dominant device for non-computer digital media consumption even as tablet devices proliferate across the U.S. Today, half of the total U.S. mobile population uses mobile media, whether browsing the mobile web, accessing applications, or downloading content. The mobile media population has grown 19 percent in the past year to more than 116 million people in August 2011. The other half of the mobile subscriber population not utilizing mobile media is nearly evenly divided among those that solely use their phone to make calls (24.9 percent) and those that utilize their phone to make calls and text (25.5 percent).

An analysis of the largest mobile content categories by audience found that people used mobile media to connect with others, consume information and enjoy entertainment. Of the categories analyzed, personal email use attracted the largest audience with more than 81 million mobile users in August 2011, an increase of 26 percent from the previous year. Weather content followed with 72.7 million visitors, up 34 percent. Social networking sites/blogs reached a mobile audience of 72.2 million visitors and was among the fastest growing categories with an increase of 37 percent in the past year. Other top mobile content categories included playing games (66.7 million users), accessing search (61.5 million users), and accessing maps (53.9 million users).
The growth in mobile media use can largely be attributed to the increase in smartphone adoption, which has grown at a rapid pace in the U.S. over the past year. In August 2011, 84.5 million Americans age 13 and older owned a smartphone, representing 36.1 percent of the mobile population. The total smartphone audience increased by 52 percent over this period.
Google’s Android operating system (OS) accounted for the largest share of the smartphone market with a 43.7 percent share of smartphone subscribers in August 2011, followed by Apple with 27.3 percent. RIM held 19.7 percent of the market, while Microsoft accounted for 5.7 percent of subscribers. Symbian and Palm both accounted for a market share of less than 2 percent each in August.

The Android platform saw its share of the smartphone market grow rapidly over the past year, driven by the proliferation of Android devices manufactured by different OEMs and the wide availability of such devices across carriers. In the past year, Android increased its market share from just 19.6 percent in August 2010 to its current 43.7 percent share.

Apple, which added Verizon to its carrier partners in early 2011, saw its market share increase 3.1 percentage points in the past year. With Sprint recently joining the lineup of iPhone carriers, Apple stands to gain access to a new segment of potential subscribers, which could play an important role in the current smartphone OS race.
The Total Reach of Mobile and Connected Device Platforms

In today’s digital landscape, device platforms or operating systems (OS) play a key role in driving the diverse use of devices to consume digital content. As such, the breadth of an operating system such as the Google Android Platform and Apple iOS extends well beyond smartphones to encompass tablets and other connected devices. As platforms shape the experiences users have on these devices, it is increasingly important to understand the full scope and reach of the platforms driving digital media consumption.

OS Market Share by Audience Installed Base

A look at the share of various mobile and connected devices in use (excluding feature phones and e-readers from the total universe of devices) shows the Apple iOS leading in share of devices in use.³ In August 2011, the iOS platform had the highest share of connected devices and smartphones in use at 43.1 percent. Apple’s leading OS position was largely driven by its relative dominance in the tablet market. While iPhones represented the lion’s share of the iOS device market at nearly 48 percent, Apple’s relative strength with non-phone devices like the iPad and iPod Touch helped it extend its OS reach considerably.

Although the Android platform accounts for the highest share of the smartphone market (43.7 percent in August), as mentioned in the previous section, its total OS audience is eclipsed by the iOS audience because of its modest presence thus far in the tablet market. Overall, Android accounted for 34.1 percent of the total mobile and connected device universe in August, while RIM ranked third at 15.4 percent.

³ The total universe of devices in this computation excludes feature phones and e-readers, which have no capability to run applications and are not comparable to other devices in this set.
OS Market Share by Digital Traffic

Another way of defining platform market share is through the share of Internet traffic measured through browser-based page views. By this definition, iOS held an even stronger position in the market. In August 2011, the iOS platform accounted for more than half (58.5 percent) of the share of total non-computer traffic in the U.S, with the iPad’s dominance in the tablet market playing a key role in its position. In fact, iPads delivered 97.2 percent of all tablet traffic and even edged out iPhones in delivering the highest share of traffic for the iOS platform (46.8 percent vs. 42.6 percent of iOS traffic).

Android OS once again ranked second, delivering 31.9 percent of overall non-computer traffic in August. RIM followed with a 5.0 percent market share. Other platforms, including Windows Mobile, combined to account for the remaining 4.6 percent of digital traffic.
The Emergence of Tablets: Today’s Tablet Users and their Behaviors

Tablet Owners Most Likely to be Younger, Male and from Upper Income Households

In the past year, tablets have emerged as key players in the story of the changing digital media landscape. Although the Apple iPad continues to dominate the tablet market, the emergence of tablet devices spanning a wide range of prices and features promises to make the device accessible to a broader audience in the foreseeable future.

In the U.S., tablet users largely display the demographic characteristics of early technology adopters: younger males with above average income. In August 2011, 54.7 percent of all tablet owners were male compared to 45.3 percent female. Users age 25-34 accounted for the largest share of tablet owners at 29.3 percent of the entire audience, while those age 35-44 accounted for 21.6 percent. Those between the ages of 18-24 represented 13.7 percent of the tablet audience.

Nearly half (45.9 percent) of tablet owners belonged to households earning $100K and more, which is not surprising considering the higher price points of many tablets on the market today. Those belonging to households earning $75K-$100K accounted for 15.9 percent of the tablet audience, while 18.3 percent belonged to households earning $50K-$75K. As more tablets enter the market at a lower price point, such as the $199 Amazon Kindle Fire, the household income segmentation among tablet users should become more evenly distributed as adoption breaks into the mainstream.
**Price the Most Important Consideration for Tablet Customers**

To more fully understand how people are using tablets to consume digital content, comScore conducted a survey on tablet owners addressing topics such as purchase consideration, content consumption, entertainment usage and tablet shopping behaviors. The following section provides insight into the results of this survey.

In today’s rapidly growing tablet market, it is important to understand the factors that shape a consumer’s decision when purchasing these devices. This insight is especially critical as competition within the space heats up and manufacturers attempt to challenge the iPad’s dominance. When purchasing a tablet, price was the most important consideration for the largest percentage of consumers. Nearly half of all tablet owners ranked overall cost of monthly service and the cost of the data plan specifically as very important considerations in their purchase.

Network quality of the mobile service provider and price of the tablet were also among the top purchase considerations, with 47 percent of owners selecting these options as very important factors in their decision process. Selection of apps and music or video capabilities were similarly very important for 45 and 43 percent of tablet owners, respectively. Operating system and brand name of a tablet were considered very important among 42 percent of tablet owners.
News & Magazine Consumption: Nearly 1 in 4 Consume News on Tablet Daily

Multi-platform media consumption habits continue to shift as new devices are introduced to the market and adoption of these devices accelerates. An analysis of how tablet owners consume news and magazine content demonstrated the range and reach of media vehicles available to today’s consumer. For tablet owners, TV remained the most prominent source for news content, with 52 percent of respondents typically consuming news in this fashion. Computer use followed closely with 48 percent of tablet owners consuming news content via desktop or laptop computers, while 28 percent reported receiving their news from print publications. Mobile and tablet consumption of news were nearly equal in audience penetration, with 22 and 21 percent of respondents accessing news via their mobile or tablet devices.

51 percent of tablet users typically view magazine content in print publications, the most popular source for magazine content consumption. By comparison, 16 percent of respondents reported viewing magazine content on their tablet devices, which outpaced the percentage of respondents who view it on their mobile phones (13 percent).
Further analysis of news content consumed on tablets found that 58 percent of tablet owners consumed world, national or local news on their devices, with 22 percent consuming this content on a near-daily basis on their tablets. More than half (54 percent) of tablet owners consumed sports content and entertainment, music, or celebrity news on their tablets, while 52 percent reported accessing financial news content.

Q: How often do you access these types of news/information on your tablet?
Source: comScore Tablet Advisor, U.S., September 2011

<table>
<thead>
<tr>
<th>Type of News/Information</th>
<th>At least once in the past month</th>
<th>Almost every day in the past month</th>
</tr>
</thead>
<tbody>
<tr>
<td>World, national or local news</td>
<td>58%</td>
<td>22%</td>
</tr>
<tr>
<td>Sports content</td>
<td>54%</td>
<td>22%</td>
</tr>
<tr>
<td>Entertainment/music/celebrity news</td>
<td>54%</td>
<td>20%</td>
</tr>
<tr>
<td>Financial news</td>
<td>52%</td>
<td>18%</td>
</tr>
<tr>
<td>Technology news</td>
<td>49%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Entertainment Consumption: Two Thirds of Tablet Owners Play Games on Their Device

Looking at how tablet owners watch TV shows and movies across devices revealed that traditional entertainment media platforms still dominate as primary entertainment outlets, although tablet and mobile devices are rapidly gaining popularity. 61 percent of tablet owners still typically view TV shows or movies on their TV, followed by 35 percent who reported viewing this content on their desktop or laptop computers.

While only 15 percent of respondents reported typically watching TV shows or movies on their tablets, a notable 24 percent streamed music from their tablet. Tablet owners were still most likely to stream music on their desktop and laptop computers (49 percent).

A closer look at how consumers utilize their tablets for entertainment found that two-thirds of tablet owners played a game on their device in September, with 23 percent doing so almost every day. Listening to music was also a popular activity, with 62 percent of tablet owners reporting listening to music downloaded from a music service and 57 percent reporting listening to music from a streaming or cloud-based service (57 percent).
Among video viewing activities, watching short video clips such as those on YouTube was the most popular activity, with 65 percent of consumers doing so on their tablets in the past month. Nearly half watched on-demand TV shows, full-length movies and live broadcasts. 57 percent of consumers also read an e-magazine or newspaper, on par with those that read an e-book on their tablet in September (56 percent).

**Q: How often do you perform these entertainment activities on your tablet?**

Source: comScore Tablet Advisor, U.S., September 2011

<table>
<thead>
<tr>
<th>Activity</th>
<th>At least once in the past month</th>
<th>Almost every day in the past month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play a game</td>
<td>23%</td>
<td>67%</td>
</tr>
<tr>
<td>Watch short video clips on sites such as YouTube</td>
<td>19%</td>
<td>65%</td>
</tr>
<tr>
<td>Listen to music downloaded from a music service</td>
<td>22%</td>
<td>62%</td>
</tr>
<tr>
<td>Read an e-magazine or newspaper</td>
<td>18%</td>
<td>57%</td>
</tr>
<tr>
<td>Listen to music from a streaming/cloud-based service</td>
<td>21%</td>
<td>57%</td>
</tr>
<tr>
<td>Read an e-book</td>
<td>19%</td>
<td>56%</td>
</tr>
<tr>
<td>Watch on-demand video or TV episodes</td>
<td>16%</td>
<td>49%</td>
</tr>
<tr>
<td>Watch full length movies</td>
<td>17%</td>
<td>48%</td>
</tr>
<tr>
<td>Watch live broadcast TV programs</td>
<td>16%</td>
<td>48%</td>
</tr>
</tbody>
</table>

**Social Media & Communication: 3 of 4 Tablet Owners Access Email on their Device**

For many consumers, tablets offer a platform for communicating with others via email, instant messaging and chat, as well as through social networking activities. 3 in 4 tablet owners accessed email on their tablet device in September with 1 in 3 doing so on a near-daily basis. Nearly two-thirds (59 percent) of tablet owners updated their social networking status or commented on others’ statuses on their device during September, while 46 percent shared their location using a location-sharing platform during the month. Video chatting on tablets using services such as Skype and FaceTime were utilized by 43 percent of the audience.
Shopping Behaviors: Half of Tablet Owners Made a Purchase on Device in Past Month

For retail brands, understanding how consumers use tablets to research and make purchases is a critical component in a comprehensive digital strategy, especially as adoption of tablets continues to increase. During the month of September, nearly half of tablet owners made or completed a purchase on their tablet, an important indicator of the growing importance of this media channel to the e-commerce market.
Tablet owners exhibited considerable use of their devices throughout the entire purchasing process – from doing the initial planning, to conducting product and store research, to making price comparisons, to finally transacting. In the past month, more than half of tablet owners looked up product or price information for a specific store (56 percent) and read customer ratings and reviews while on a tablet (54 percent). Notably, half of the tablet audience compared product and price information while on their device, with the same percentage searching for a nearby store.

Coupons and daily deal offerings continue to play a key role in e-commerce, with nearly half of all tablet owners reported seeking coupons or deals and downloading such offers while on their devices.
Tablets: Here to Stay, What You Should Know

While tablets have thus far only penetrated a small percentage of the U.S. population, the potential for this device to break into the mainstream is significant, as more manufacturers offer tablets at varying price points. As such, digital marketers are presented with another platform to reach and engage consumers which represent an attractive audience segment for many brands.

Currently, half or more of tablet users report having engaged in activities such as consuming news, viewing entertainment, social networking, and shopping on their devices at least once in the previous month. With more publishers optimizing their properties for tablet presentation and developers creating apps specific to tablets, it is likely that tablet owners’ engagement with their devices will only continue to grow. Similarly, as tablets become more accessible and more people adopt these devices, it is highly probable that publishers will see a growing share of their audience on tablets over time. This new reality has implications for publishers and advertisers alike, particularly in the industries covered previously. As tablet users increasingly seek out shopping information, local content, and entertainment on their devices, players in these industries should optimize their content for tablet use and evaluate the opportunity to reach incremental audiences via the tablet platform.

It’s important to note that in spite of the promise it holds, at the moment, tablets are still only a supplementary device for digital omnivores. Tablet owners still consume content via TV, computer and mobile, and it can safely be assumed these devices will continue to be integral to consumers’ daily lives. However, as portable connectivity becomes increasingly important to people, the potential for tablets to become a primary mode for digital access outside of the workplace is significant.

With the plethora of device options available to consumers, it is more important than ever to take a holistic look at consumer behavior across devices. Understanding how people consume content on separate devices, the complementary effect these devices have on one another, and how consumer consumption habits are changing in response to all these technological shifts will be important in understanding digital media fragmentation.
Content Categories: Evolution of Traffic and Audiences

Content Category Consumption by Device

As publishers are faced with the task of catering to this digitally omnivorous audience, it is essential to understand how device types contribute to digital traffic for the categories to which their properties belong. While not all types of media and content will be consumed right away on connected devices, others do lend themselves very easily to connected and mobile device use.

This final view of Internet traffic to various content categories analyzes a few categories that are accessed more frequently through mobile and connected devices relative to the total Internet.

Newspapers, Blogs, and Technology sites stand out as examples of categories in the U.S. exhibiting high relative non-computer device traffic activity. In August 2011, 7.7 percent of total traffic going to Newspaper sites came from mobile devices – 3.3-percentage points higher than the amount of mobile traffic going to the total Internet. As consumers continue to seek out breaking news and updated information on the go, it is likely that this share of traffic could grow further for non-computer sources.

Technology sites also stand out as a category exhibiting high non-computer share of traffic relative to the Internet as a whole. Interestingly, in August 2011, 3.7 percent of all traffic going to Technology sites came from tablets – significantly higher than the tablet share of traffic going to the total Internet – a strong indicator that the tablet audience is comprised of technophiles.
Incremental Reach of Mobile and Connected Devices

An analysis of selected publishers within the News category provides a closer look into the added reach contributed by mobile and connected devices. The comScore Total Universe Report illustrates the full breadth of unduplicated audience visitation across home and work computers, mobile and connected devices. The following figure shows that while the majority of audiences for these news publishers connect from computers at home and at work, a sizeable percentage also comes from mobile and other connected devices. For each of these publishers, the incremental reach from mobile and other devices is at least 7 percent – a significant percentage with important implications in terms of monetizing content through advertising.

While the incremental reach is still less than 10 percent for many publishers, the importance of mobile and connected devices should not be underestimated because it is likely to grow over time. Some publishers, however, already exist in a truly cross-platform reality where mobile and connected devices are as important as the fixed Internet. One such example is Pandora, which in August 2011 had a total cross-platform audience of 37.4 million visitors. Mobile-only visitors accounted for an impressive 52 percent of the total audience, while mobile/computer overlapping users accounted for an additional 26 percent of the total audience. As more publishers leverage the growing popularity of connected devices to serve as additional primary channels for their content, it is likely we will see more cases similar to Pandora’s down the road.
Incremental Duration with Mobile and Connected Device Use

An analysis of digital media consumption across a sample of U.S. iPhone and iPad owners further illustrates the incremental effect mobile and connected devices are beginning to have on consumption habits. Across the board, iPhone and iPad owners spent twice as much time accessing digital content when factoring in their engagement across these devices compared to just their computer usage.

### Incremental Reach and Duration of Time Spent on Selected Categories Relative to Computer Use for iPhone and iPad Owners

Source: comScore Custom Analytics, U.S., September 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Incremental Reach</th>
<th>Incremental Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Internet</td>
<td>0.2%</td>
<td>2.0x</td>
</tr>
<tr>
<td>Maps</td>
<td>56.8%</td>
<td>9.2x</td>
</tr>
<tr>
<td>News/Information</td>
<td>28.9%</td>
<td>1.6x</td>
</tr>
<tr>
<td>Email</td>
<td>23.6%</td>
<td>1.9x</td>
</tr>
<tr>
<td>Social Networking</td>
<td>12.5%</td>
<td>2.8x</td>
</tr>
<tr>
<td>Retail</td>
<td>8.7%</td>
<td>2.5x</td>
</tr>
</tbody>
</table>

Some categories show an even greater incremental effect for the duration of use across these devices. Time spent nearly tripled for Social Networking content and increased by a factor of 9 for Maps, as users were likely to access these categories on a more frequent basis on their iPhones and iPads.
Yet, it is important to note that the incremental effect on reach and duration to these categories is not necessarily a product of simply the addition of devices to users' daily lives. As people incorporate the use of new, portable devices into their daily routines, the way they access and spend time on various categories is likely to change. As tablets and smartphones offer more portability, users are likely to shift and expand their use of certain types of content, such as local content, on these devices. As such, Maps reflect a significant incremental increase in reach and duration when accounting for iPhone and iPad use among this sample, because people are likely to use maps and other navigational content while on the go.

As mobile and connected devices make digital omnivores of consumers who might once have accessed online content exclusively on computers, it becomes all the more important for publishers and advertisers alike to understand how these devices shift the dynamics of online visitation and engagement across the industry.
Conclusion

The digital omnivore is not just a prediction of the future media consumer, but a very real phenomenon happening across the digital landscape today. As consumers continue to sample from the platter of devices available to them, digital consumption will continue to evolve as these devices influence how, where, when and what people consume while connected.

As illustrated throughout this report, digital consumption in the U.S. (and across the world) is changing:

- **Multi-device use shifts visitation and engagement significantly for certain content:** The incremental effect wrought by smartphones and connected devices on reach and engagement is sizeable, especially for those categories that lend themselves well to mobile and tablet environments. In the example of selected publishers within the News category, accounting for the total audience for these sites beyond home and work computers yields a significant incremental reach from mobile and connected devices. The study on the sample of users with iPhones and iPads further reveals the incremental effect of mobile and connected device use on time spent on certain categories. With more people incorporating these devices into their daily lives, publishers should understand the shifts in engagement these devices are bringing.

- **Consumption away from desktops and laptops is real and growing:** It wasn’t long ago in digital history that 100 percent of traffic came from desktops or laptops; now nearly 7 percent of all digital traffic in the U.S. is consumed away from computers. With more consumers adopting smartphones, tablets and other connected devices, non-computer traffic shows only signs of increasing.

- **Smartphones are the catalyst to mobile media consumption:** Half of today’s U.S. mobile population consumes media on their device. That’s more than 116 million people that are browsing the mobile web, accessing applications, or downloading content via a device that is almost always within arm’s reach. Smartphones, the key driver to mobile media consumption, have seen adoption rates soar as consumers embrace this platform to engage with content.

- **Tablet traffic is becoming notable and rising quickly:** Tablets now drive nearly 2 percent of all digital traffic in the U.S. which, given the fact that the iPad was only introduced a year and a half ago (April 2010), is rather impressive. Even more impressive is the fact that iPads now account for a higher share of Internet traffic than iPhones (46.8 percent vs. 42.6 percent of iOS traffic) demonstrating the very real impact these devices have had in a relatively short time.

- **Devices do not exist in isolation, understanding complementary usage is key:** Devices influence the way people consume content and it is important to remember that they do not exist in isolation of one another, but have a complementary relationship in consumers’ lives. As demonstrated by the analysis of news content consumption by day part, understanding how
consumers are utilizing the full spectrum of digital devices available to them will become increasingly important to building effective digital strategies.

- **Incremental reach and unduplicated audience critical to the digital ecosystem:**
  Understanding one’s total audience across all platforms will be central to the future of the digital advertising ecosystem. For publishers, the incremental audience wrought by mobile and tablets provides additional reach as one’s total audience expands. For advertisers, understanding unduplicated audiences across these various platforms will be critical to optimizing campaigns. For publishers such as Pandora who source a significant portion of their audience away from computers, these insights are essential to an effective multi-platform digital strategy.

In this multi-device environment, audience measurement can no longer be confined to the desktop or laptop environment to understand the full profile of today’s digital consumer. Holistic audience measurement – understanding consumer behaviors across computer, mobile, tablet and other connected devices – will be increasingly important as brands seek to optimize strategies and allocate dollars appropriately across platforms.

With more devices entering the market and consumer adoption rates of these various devices surging, the industry must prepare for consumption significant disruption to the digital media environment. For those who thought the digital landscape was already chaotic, its complexity is multiplying by the day. And with the rapid rise of digital omnivores among us, businesses must take command of this new reality or risk being left behind.
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