



December 2011, Vol. 13 Issue 2

| [Volume 13 Issue 2](#) | [Past Issues](#) | [A-Z List](#) |

Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.

[Barbara S. Chaparro](#), Editor

iPad Usage Patterns On-the-Go and at Work

[B. Nguyen](#) & [B. Chaparro](#)

Summary. In the last issue of Usability News ([13.1](#)), we distributed an online survey exploring how you were using your iPad. Participants included owners of both the original iPad and the iPad 2. Results of the survey indicate that the iPad is still mainly used for web browsing, email, reading news, social networking, and playing games. In the workplace, respondents reported using it mostly as a reference tool. Respondents spoke very favorably of the iPad, citing its overall ease of use, large screen size, and portability. The inability to view Adobe Flash, and the inconsistency and complexity of some apps were cited as the biggest areas where the device could be improved.

INTRODUCTION

Since its release in April 2010, the Apple iPad has become the de facto tablet for consumers. Selling 14.8 million units, the iPad was the best-selling tablet worldwide in 2010. In March of 2011, Apple announced the second iteration of its tablet, the iPad 2. The new tablet was thinner, lighter, had a faster processor, more memory, and was given front and rear cameras. Shortly after the release of the iPad 2, ChangeWave Research surveyed 2,000 potential customers. In that survey, 28% of respondents stated they planned to buy an iPad 2, 40% higher than a similar survey regarding the original iPad in 2010 (De-Witt, 2011). These estimates held true as the real sales numbers rolled in. In the quarter after its release, Apple reported selling over 9 million iPads (both 1 and 2, combined). This was a 183% increase over the same quarter in the previous year, in which only the original iPad was available (Apple, Inc., 2011).

The iPad's success has paved the path for competitors (e.g., Motorola Xoom, HP Touchpad) to enter the market. More recently, the iPad has been compared to other e-Readers such as the new Amazon Kindle Fire and Nook Tablet. Despite this competition, analysts from Gartner, an information technology research company, project that Apple will sell over 14 million tablets in 2015, allowing them to maintain their position over other tablets running Android or Microsoft operating systems (Gartner, 2011).

The iPad is not without criticism. In the previous survey, users of the original iPad complained about the lack of USB ports and features for multi-tasking. In order to investigate whether there were changes in how consumers were using their iPads since the launch of the iPad 2, we asked our Usability News subscribers who owned an iPad to complete a survey. This article summarizes the results of this survey.

METHOD

Participants

A total of 52 (26 male, 26 female) iPad owners (original iPad or iPad 2), answered the survey. Participants' ages ranged from 23-80 years old ($M = 43.1$, $SD = 12.2$). The respondents were primarily white (83%), followed by Asian/Pacific Islander (10%). Eighty-seven percent had a college degree or higher, 62% were laptop users, and 88% used a smart phone (63% of these owned an iPhone).

Materials

A 75-item survey was generated by members of the Software Usability Research Lab (SURL) to explore iPad usage. The survey was pilot tested with experienced and inexperienced iPad users and refined accordingly. The survey included basic user demographic questions, items about current computer and cellphone use, and questions more specific to the iPad. Owners of the iPad were questioned about general iPad use as well as how frequently they performed certain tasks on the device. Further, they completed a satisfaction questionnaire (adapted SUS from Brooke, 1996). Lastly, they were asked to provide comments about the most liked and disliked features and applications for the iPad.

Procedure

The survey was presented online using Google Doc Forms. The survey was distributed to the 9000+ subscribers of Usability News (www.usabilitynews.org) as well as various email lists and Facebook groups. Completion time was approximately 20 minutes. Responses were collected during a 2-month time span.

RESULTS

How is the iPad being used?

Fifty-four percent of respondents reported owning the original iPad, while 46% reported owning the iPad 2. In general, people reported that they use their iPad primarily for personal or leisure rather than school or work. The majority of the respondents reported having between 21-40 apps installed on their iPad (see Figure 1). However, most respondents reported only using 6-10 apps regularly (see Figure 2).

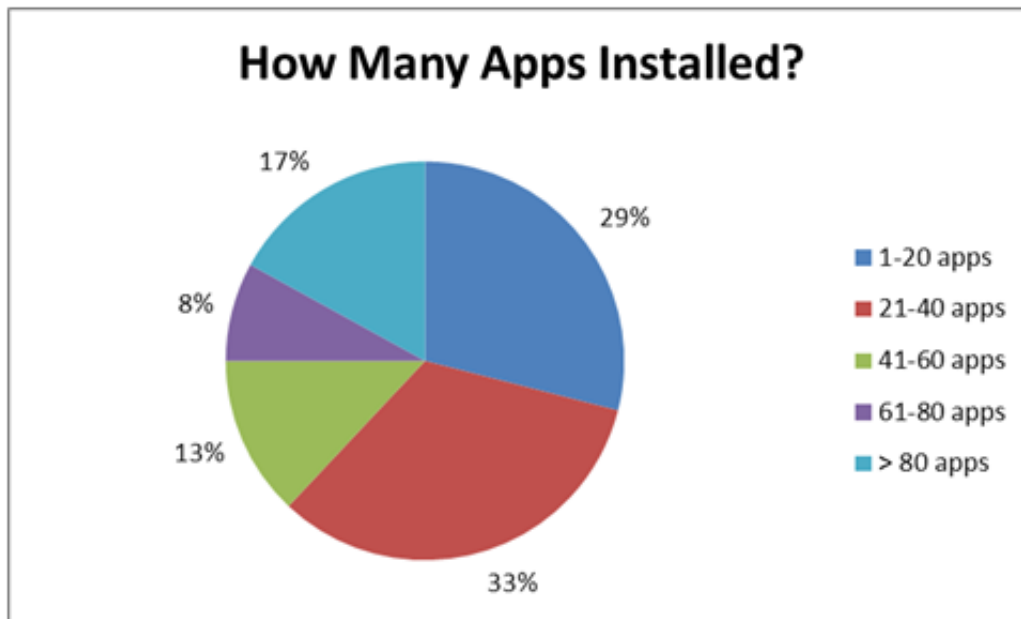


Figure 1. The reported number of installed iPad applications.

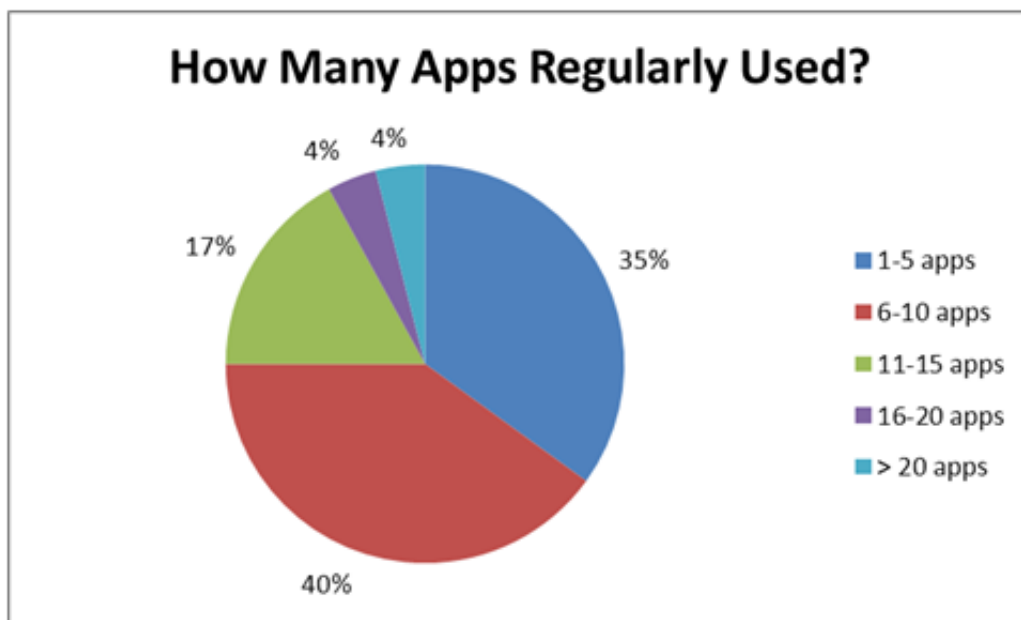


Figure 2. The reported number of iPad applications respondents regularly used.

A little more than half of the participants (52%) reported that they carry their iPads only when traveling, while the remaining half reported either carrying their iPad every time they go out (21%), only when going to work (17%), or never (10%). No respondents reported carrying their iPad when going to school (no students were included in this survey) (Figure 3).

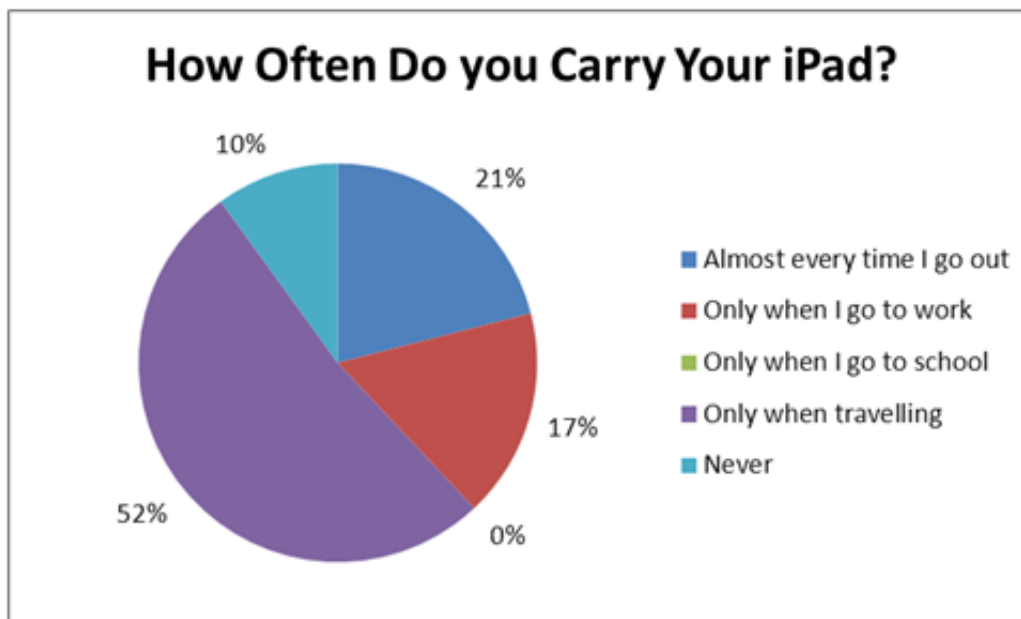


Figure 3. Percentage of users indicating how often they carry their iPads.

Given the portability of the iPad, we were curious as to how many iPad owners purchased the device with the intent of using it jointly with another person (e.g., another family member). While the majority (58%) of the respondents reported that they use their iPad exclusively, 42% reported that they share their iPad with at least one other person (see Figure 4).

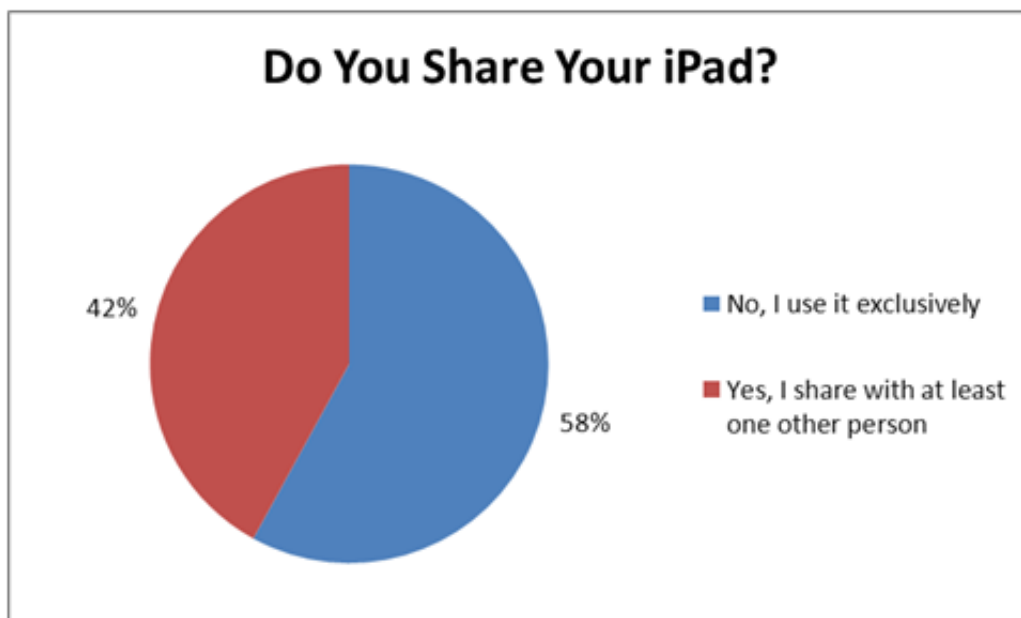


Figure 4. Percentage of users reporting whether they share their iPad with others.

To examine physically where participants used their iPads, they were asked how frequently they used their iPad in various locations (Always, Often, Sometimes, Rarely, or Never). Percentages for "Always" and "Often" were combined to summarize where iPads were used most frequently. Respondents indicated using their iPad most frequently in the living room. Figure 5 summarizes the results.

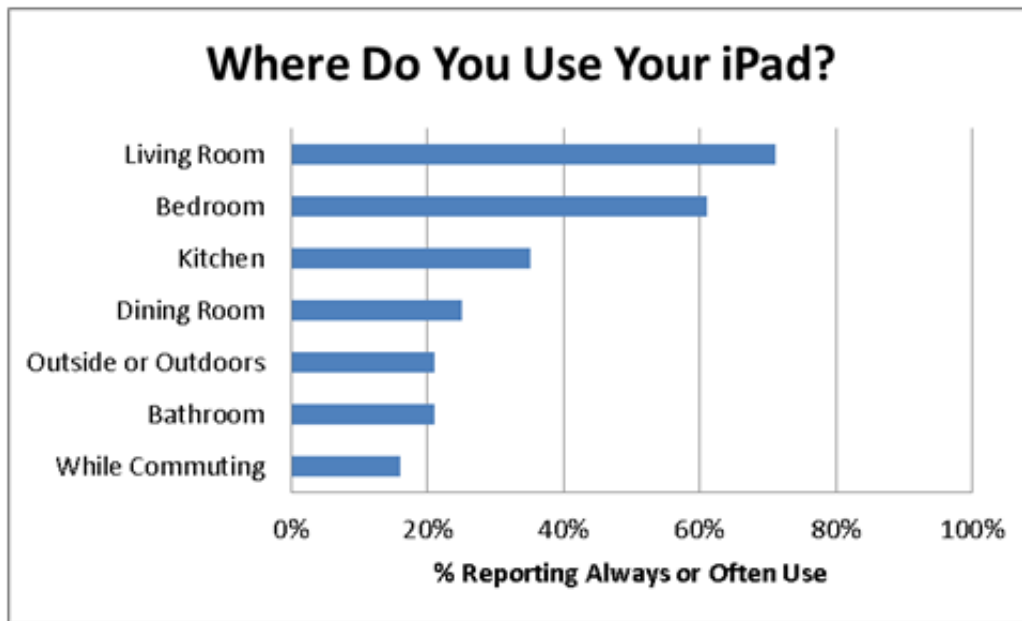


Figure 5. Percentage of users reporting "always" or "often" to using their iPads in different locations.

Activities Done on the iPad

To examine specifically how they were using their iPad, respondents were asked to indicate how frequently they engage in a variety of activities (Never, Monthly, Weekly, Daily, and Hourly). Daily and hourly percentages were combined to summarize the most frequent activities. The top six activities are shown in Figures 6, 7, 8, and 9.

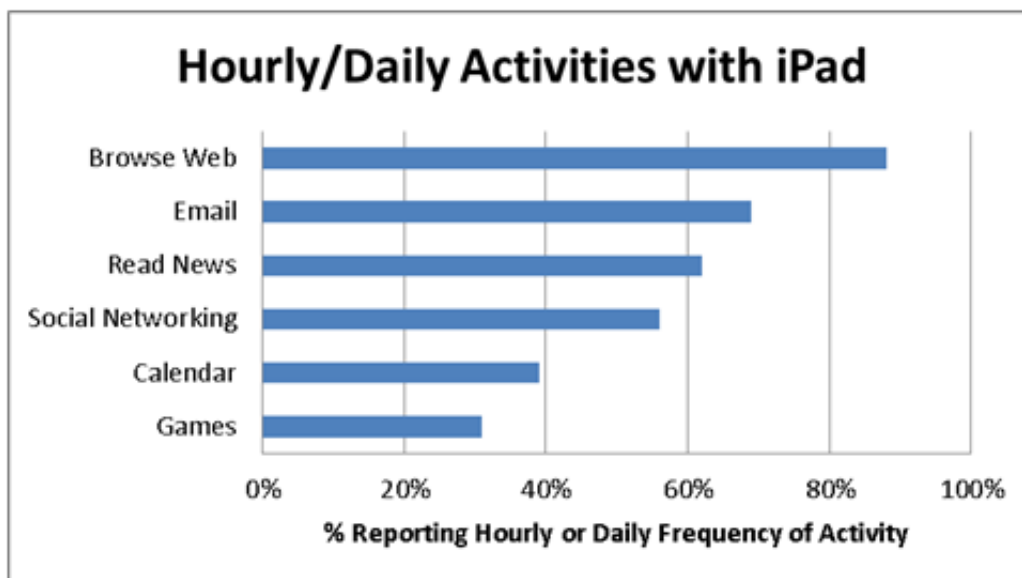


Figure 6. Top activities reported to be done "Daily" or "Hourly" on the iPad.

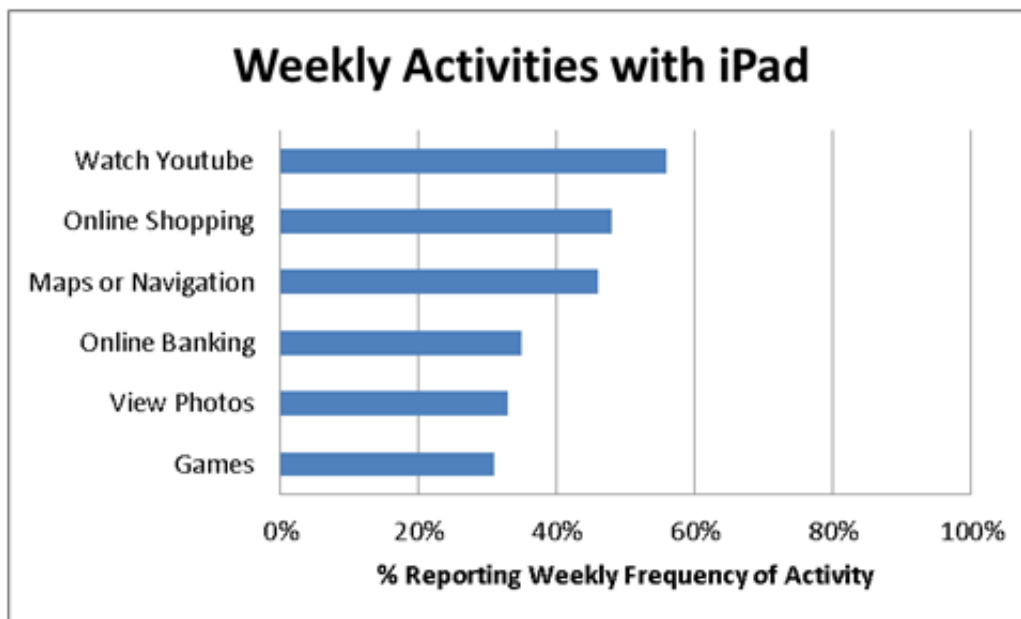


Figure 7. Top activities reported to be done "Weekly" on the iPad.

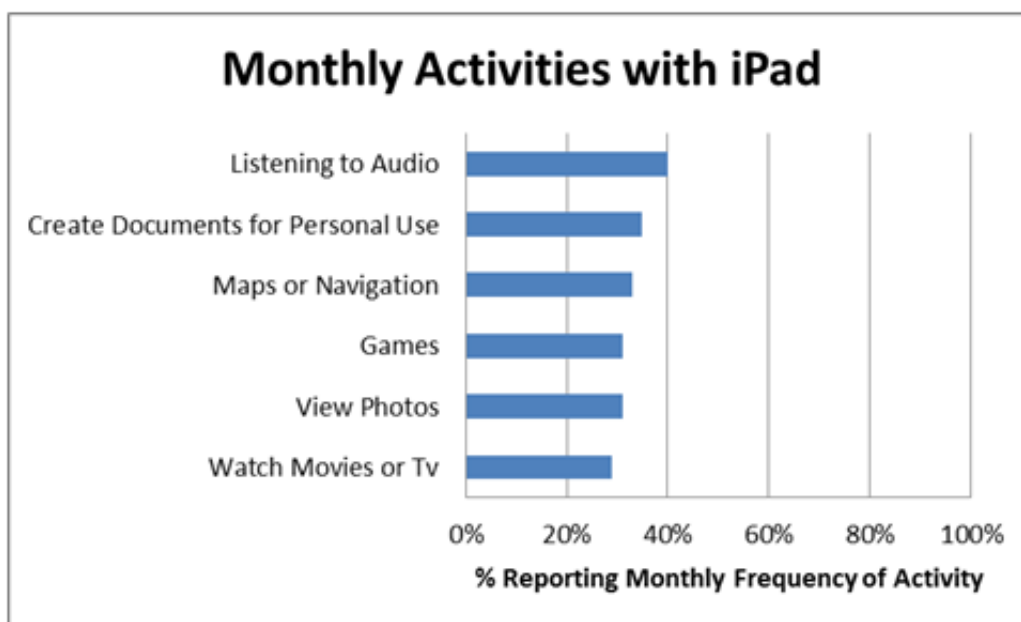


Figure 8. Top activities reported to be done "Monthly" on the iPad.

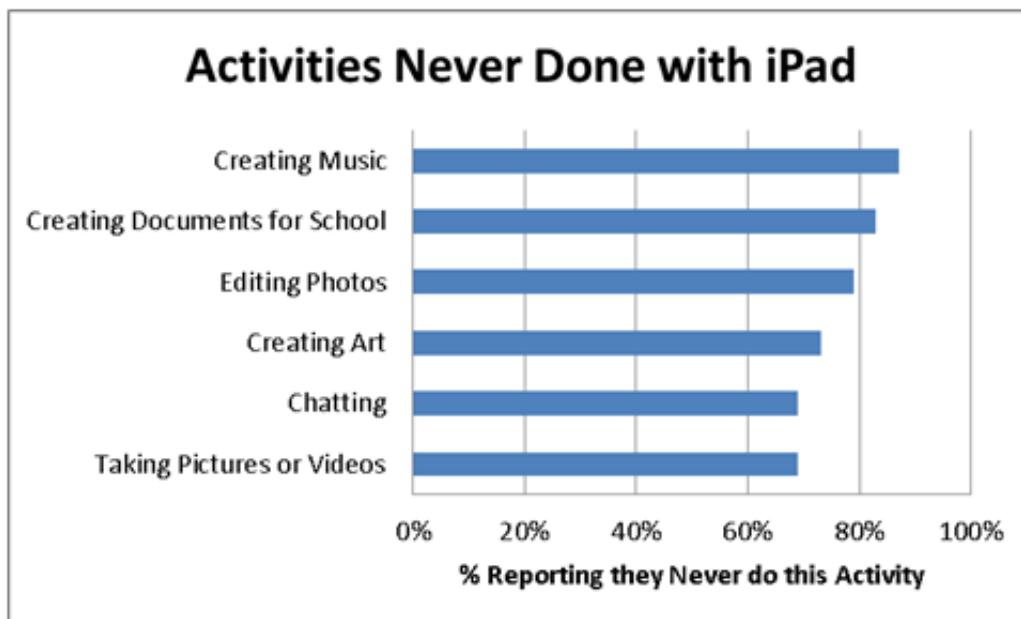


Figure 9. Top activities report to be "Never" done on the iPad.

Given the increasing popularity of e-Readers, we were curious as to how participants used the iPad to read e-books. Three-fourths of all respondents reported reading e-books on the iPad, and 58% had installed an e-Reader app other than Apple's iBook (e.g., Amazon Kindle app). Of the 30 participants with an additional e-Reader application installed on their iPad (i.e., beyond Apple's iBook), they were asked how frequently they used their iPad to read e-books purchased for a specific e-Reader (e.g., using the Amazon Kindle app on the iPad). Thirty-six percent reported "seldom" use of iPad to read other e-books, while 30% reported "Always", 23% reported "Usually", and 10% reported "About half the time".

Almost half (48%) of the respondents that read e-books on the iPad reported owning at least one other e-Reader (e.g., Amazon Kindle, Sony Reader) other than the iPad. When asked why they read e-books on the iPad rather than on their e-Reader, respondents indicated it was convenient, they were already doing something on the iPad, or because the iPad had a touchscreen.

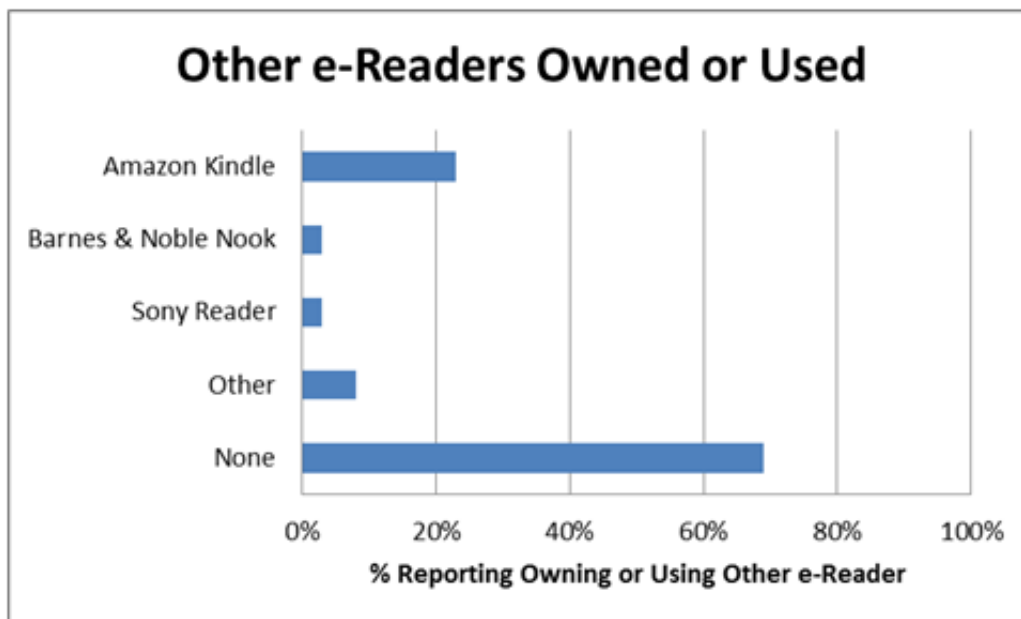


Figure 10. Percentage of users reporting owning or using another e-Reader.

Using the iPad at Work

We were also interested in how people were using iPads at work. Thirteen percent of respondents reported using the iPad only for work, while a little more than half (52%) of participants reported using an iPad at work. Of these participants (n=27), we asked them questions about how frequently (Hourly, Daily, Weekly, Monthly, or Never) they engaged in six work-related tasks. Percentages for "Hourly", "Daily", "Weekly", and "Monthly" were combined to summarize which activities were most common. Participant indicated the iPad was used most often as a reference tool (96%). Fifty-nine percent of respondents reported accessing a company network or intranet at least monthly, while 22% reported accessing a company remote desktop at least monthly. One-third of participants reported using a company application on the iPad, 70% reported using the iPad for creating and editing documents for work, and two-thirds use the iPad to show presentations or documents (see Figure 11).

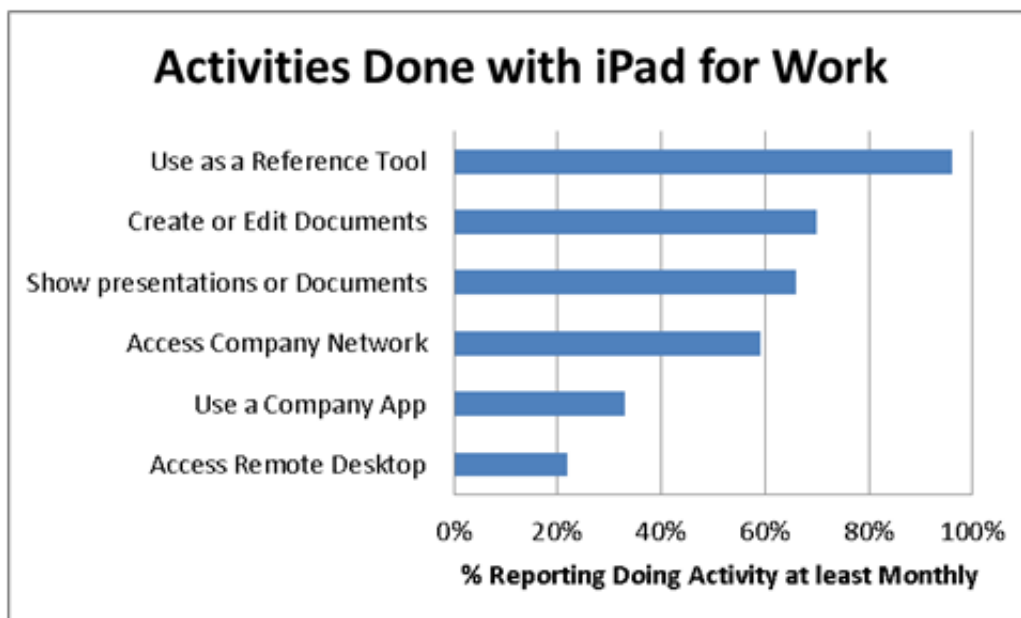


Figure 11. Percentage of users reporting performing activities on iPad for work.

Satisfaction

Users were very positive about their iPad. Responses to the adapted SUS satisfaction questionnaire averaged 83.65 ($SD = 18.27$), out of a possible 100. Respondents were also asked to rate the "user-friendliness" of the device on a 7-point Likert scale including Best Imaginable, Excellent, Good, Fair, Poor, Awful, and Worst Imaginable. The majority of the respondents rated the iPad as "Excellent" (62%). A smaller percentage reported it to be "Good" (21%) and "Best Imaginable" (10%). The remaining reported it to be "Fair" (4%), "Poor" (2%), or "Awful" (2%). None of the respondents rated it as "Worst Imaginable".

What is BEST about the iPad?

When asked what they like BEST about the iPad, respondents indicated the variety of apps available, overall ease of use, the larger screen size, and portability. Figure 12 shows a tag cloud representation of the most frequent terms used when answering what they like best.



Figure 12. The features mentioned by respondents as being the best qualities of the iPad. The larger the text size, the more frequently that term was used.

What is liked LEAST about the iPad?

When asked what they liked the LEAST about the iPad, respondents indicated the poor quality of some apps, the inability to play Adobe Flash, and problems typing with the keyboard. Figure 13 shows a tag cloud representation of the most frequent terms used when answering what they like the least.

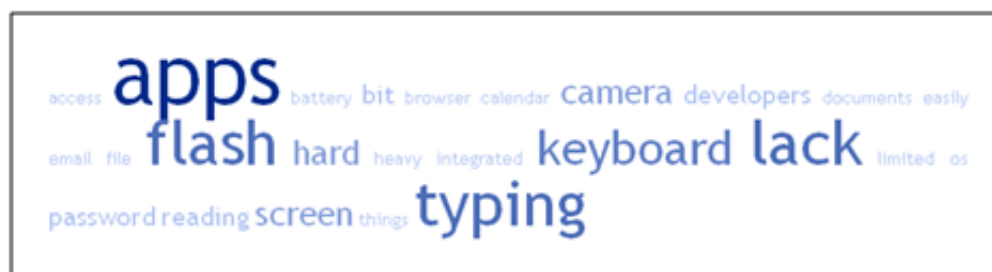


Figure 13. The features mentioned by respondents as being the least liked qualities of the iPad. The larger the text size, the more frequently that term was used.

What iPad apps are the BEST?

When asked which iPads apps they liked the BEST, respondents mentioned the Safari web browser the most, followed by Flipboard, iBooks, the Kindle app, and email (see Figure 14). Some users indicated Safari was as fast and had close to the same functionality as a full web browser. Generally, the apps were praised for their simplicity, convenience, and ease of use. Apps like Flipboard, Dropbox, Maps, and iBooks were highly complimented because of their functionality.



Figure 14. The apps mentioned by respondents as being the best. The larger the text size, the more frequently that term was used.

What iPad apps are liked the LEAST?

When asked which iPad apps they liked the LEAST, respondents mentioned the iTunes app the most, followed by the Calendar, and the Facebook app (Figure 15). Users described the stock iTunes application as slow, complex, inferior to the desktop version, and lacking the ability to remove the application from the device. The stock Calendar application was described to be very difficult to use, with participants mentioning issues with the interface, problems creating new entries, and issues using multiple calendars. Respondents complained that the Facebook application was not user-friendly and that it lacked a tablet-specific version.



Figure 15. The apps mentioned by respondents as being liked the least. The larger the text size, the more frequently that term was used.

Changes in Task Behaviors

Our main goal of this survey was to determine whether there were changes in behavior after the

release of the Apple iPad 2. The results revealed there were changes in how owners carried their iPads, with a decreasing number of owners carrying the iPad every time they go out or only to work, and an increase of people carrying the iPad only while travelling. Further, results indicated a rise in the sharing of iPads with other people.

There were some interesting results regarding the tasks performed on the iPad. For example, performing calendar tasks is now on the list of the top frequent activities. This may suggest that people are beginning to use their iPads more as an organizational tool. Also, reading e-books or e-magazines are no longer a top activity. This may be due to the increase in options and the popularity of stand-alone e-Readers.

Among the new tasks on the list of activities never done on the iPad is chatting. This is interesting since nearly 60% of respondents reported engaging in social networking hourly or daily and chatting is a main component of social networking websites such as Facebook. Also on the list of tasks never done is taking pictures. This is surprising given the fact that Apple added two cameras to the iPad 2. Further, nearly half (46%) of participants owned an iPad 2. It is speculated that the iPad 2's large size (compared to a regular point-and-shoot digital camera) makes it cumbersome for picture-taking.

In general, respondents are using the iPad in a similar fashion as they did in the previous survey, as a leisurely device to browse the Web and check email. The current survey also took a deeper look into the use of the iPad as an e-Reader and added new findings about work-related tasks.

The results of the study show that iPads are being used in the work environment. This provides an opportunity to investigate whether there are differences in usage of the iPad between work and non-work environments. A more in-depth study examining whether there are issues with using the iPad at work is warranted.

Overall, it seems as though Apple is listening to its customers. Many participants from the original study mentioned the lack of a camera and ability to multitask as being the LEAST liked features of the iPad. These were not mentioned as frequently in the current study, as Apple introduced cameras in the iPad 2 and made multitasking abilities available for both the original iPad and iPad 2. However, respondents still frequently mentioned the inconsistency of applications and quality of applications (e.g., user interface, speed) as the least liked features of the iPad.

CONCLUSIONS

Although satisfaction scores were slightly lower than those from our first survey, respondents are still very satisfied with their iPads. The small change in satisfaction may have been affected by owners of the original iPad. These owners may have had a longer duration to interact with their device, allowing them discover more issues.

In general, respondents are using the iPad in a similar fashion as they did in the previous survey, as a leisurely device to browse the Web and check email. The current survey also took a deeper look into the use of the iPad as an e-Reader and added new findings about work-related tasks.

The results of the study show that iPads are being used in the work environment. This provides an opportunity to investigate whether there are differences in usage of the iPad between work and non-work environments. A more in-depth study examining whether there are issues with using the iPad at work is warranted.

Overall, it seems as though Apple is listening to its customers. Many participants from the original study mentioned the lack of a camera and ability to multitask as being the LEAST liked features of the iPad. These were not mentioned as frequently in the current study, as Apple introduced cameras in the iPad 2 and made multitasking abilities available for both the original iPad and iPad 2. However, respondents still frequently mentioned the inconsistency of applications and quality of applications (e.g., user interface, speed) as the least liked features of the iPad.

REFERENCES

Apple, Inc. (2011). Apple reports third quarter results. Retrieved from <http://www.apple.com/pr/library/2011/07/19Apple-Reports-Third-Quarter-Results.html>

Brooke, J. (1996). SUS: A Quick and Dirty Usability Scale, in P. Jordan, B. Thomas, B. Weerdmeester, & I. L. McClelland (eds.), Usability evaluation in industry, (pp. 189-94). London, UK: Taylor & Francis.

Elmer-DeWitt (2011). ChangeWave research: iPad 2 demand 40% higher than iPad 1. Retrieved from <http://tech.fortune.cnn.com/2011/04/12/changewave-research-ipad-2-demand-40-higher-than-ipad-1/>

Gartner (2011). Gartner says apple with have a free run in tablet market holiday season as competitors continue to lag. Retrieved from <http://www.gartner.com/it/page.jsp?id=1800514>

SUBSCRIBE to *Usability News*!