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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

Survey Results: iPad is Best for Reading, Communicating, and Gaming

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Summary. In the last issue of Usability News, we distributed an online survey exploring iPad usage. Results of the survey indicate that the iPad is mainly used for web browsing, email, reading news and e-books, social networking, and playing games. Respondents spoke very favorably of the iPad, citing its overall ease of use, large screen size, and portability. The lack of a camera, the inability to view Adobe Flash, and the inconsistency of some applications (apps) were cited as the biggest areas where the device could be improved.

INTRODUCTION

The Apple iPad was slated to be a revolutionary technological device, filling the void between smartphones and laptops. To do so, it would have to perform far better than a smartphone and laptop at web browsing, email, photos, video, music, games, and eBooks. In a recent study by comScore (2010), consumers were questioned about their awareness and purchase behaviors regarding e-readers and tablet devices. Consumers showed very high awareness, 65% percent for both the Amazon Kindle and Apple iPad. However, only 1% of the consumers actually bought an iPad compared to the 6% for the Amazon Kindle. Given the hypothetical situation of owning an iPad, consumers indicated they were more likely to use the iPad to browse the web and email, while least likely to use it for the apps from the App Store and playing games. Resolve Market Research also reported similar findings, citing that consumers thought a portable gaming device was more suitable for playing games than an iPad (60% and 23%, respectively). Interestingly, however, after owning an iPad, 38% of the respondents indicated that they would not buy a portable gaming device (Warren, 2010).

Has Apple achieved its goals? Selling at a rate of 4.5 million units per quarter, the iPad is becoming the "most quickly adopted non-phone electronic device ever" (Jacobsson Purewal, 2010). The NPD Group conducted a survey that reported almost 80% of early adopting iPad owners and 65% of those who bought the iPad after launch are "very satisfied" with their purchase. Inevitably, there is still room to improve. Among the top reported dislikes were the lack of USB ports and multi-tasking capabilities (Baker, 2010).

In order to better understand how consumers are using their iPad, we asked our Usability News subscribers who owned an iPad to complete a short survey. This article summarizes the results of this survey.

METHOD

Participants

A total of 51 iPad owners (38 male, 13 female) answered the survey. Participants' ages ranged from 21-64 years old ($M = 40.7$; $SD = 11.4$). The respondents were primarily white (75%), followed by Asian/Pacific Islander (18%), and Other (8%). Seventy-six percent had a college degree or higher, 69% were laptop users, and 86% used a smart phone (75% of these owned an iPhone).

Materials

A 50-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 10 minutes. Responses were collected during a 2-month time span. Descriptive statistical analyses were computed with Microsoft Excel.

RESULTS

How is the iPad being used?

In general, the respondents reported that they use the iPad primarily for personal or leisure rather than school or work (Figure 1). To examine specifically how they were using their iPad, respondents were asked to indicate how frequently they did a variety of activities (Hourly, Daily, Weekly, Monthly, Never). Daily and hourly percentages were combined to summarize the most frequent activities. The top six activities by frequency are shown in Figures 2, 3, and 4 (less than 20% of the respondents reported that they conducted any of the activities monthly, so they are not shown graphically).

Respondents reported daily or hourly use for web browsing, email, reading news, social networking, reading online books or e-magazines, and playing games. They reported weekly use of the iPad for watching YouTube, viewing maps, watching movies/TV, online shopping, photo viewing, and music/podcasts. They reported never using the iPad for editing photos, creating music, creating art (scrapbooking, drawing/painting), posting photos, creating/editing documents, and online banking. Among the tasks/activities queried, only the activity of using the Calendar is not represented in Figures 2-4. Respondents reported that they used the Calendar daily/hourly (39%), weekly (31%), monthly (2%), and never (27%).

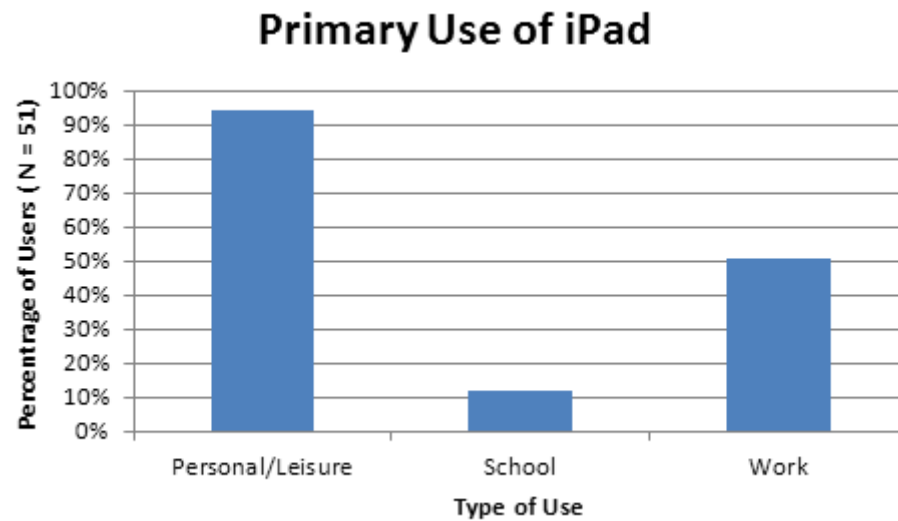


Figure 1. Percentage of users reporting use of their iPad for personal/leisure, school or work (respondents could choose more than one option)

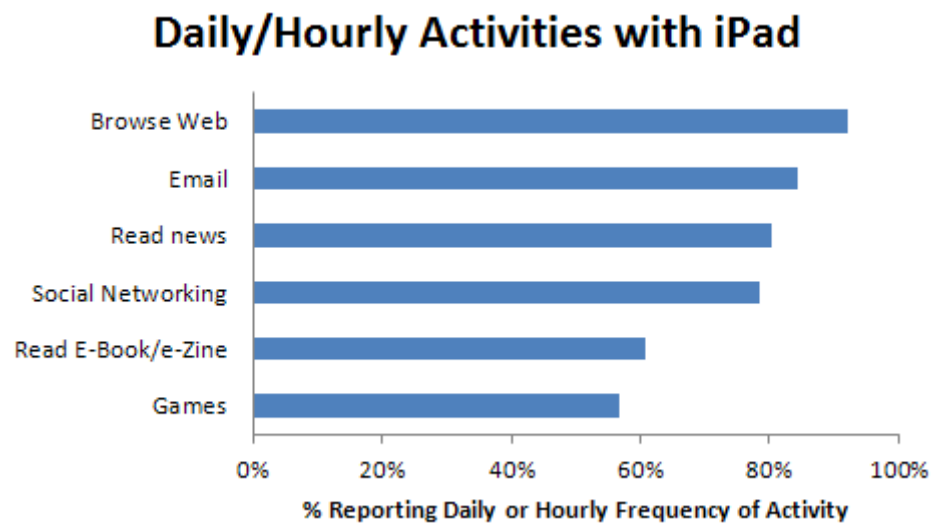


Figure 2. Top activities reported to be done "Daily" or "Hourly" on the iPad.

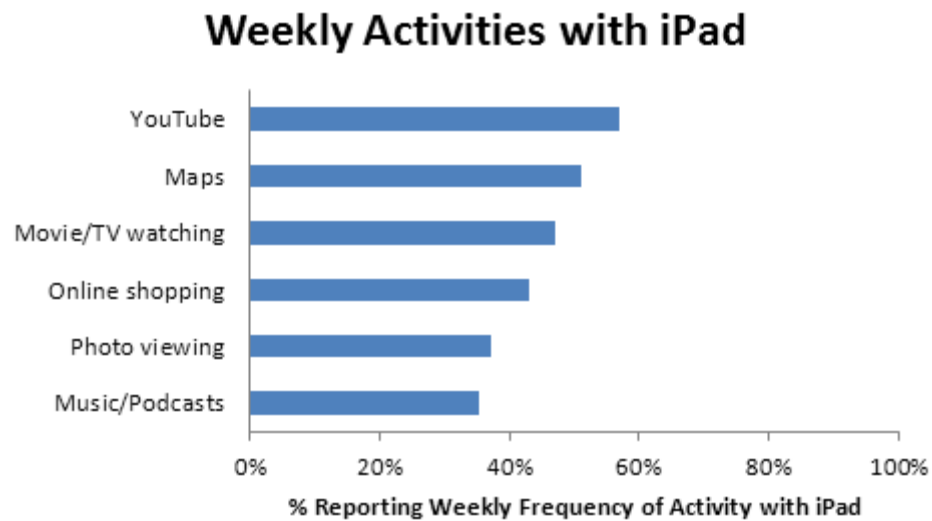


Figure 3. Top activities reported to be done "Weekly" on the iPad.

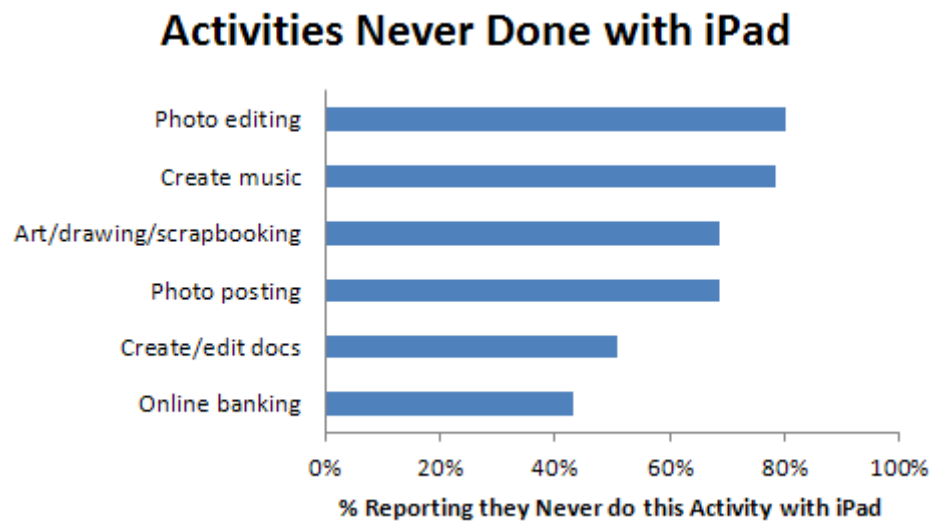


Figure 4. Top activities reported to be "Never" done on the iPad.

The majority of the respondents reported having between 21-40 apps installed on their iPad (see Figure 5).

How Many Apps Installed?

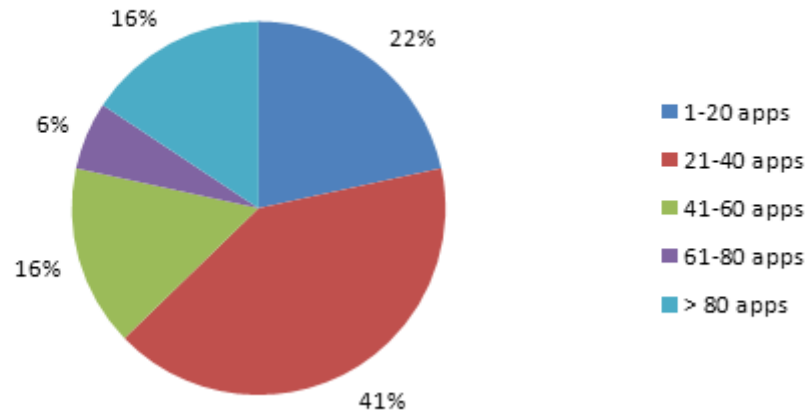


Figure 5. The reported number of applications users have installed.

A little more than one-third of the participants (37%) reported that they carry their iPad every time they go out while another third reported that they only carry their iPad when going to work or school. The remaining third reported that they carry their iPad only when travelling or for other activities (see Figure 6).

How Often Do You Carry Your iPad?

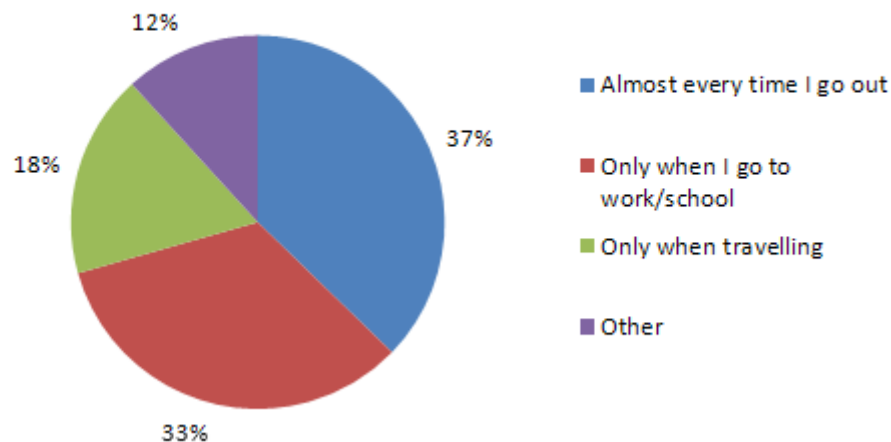


Figure 6. Users indicating how often they carry their iPads.

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 of the respondents reported that they use their iPad exclusively, one-third reported that they share their iPad with at least one other person (see Figure 7).

Do You Share Your iPad?

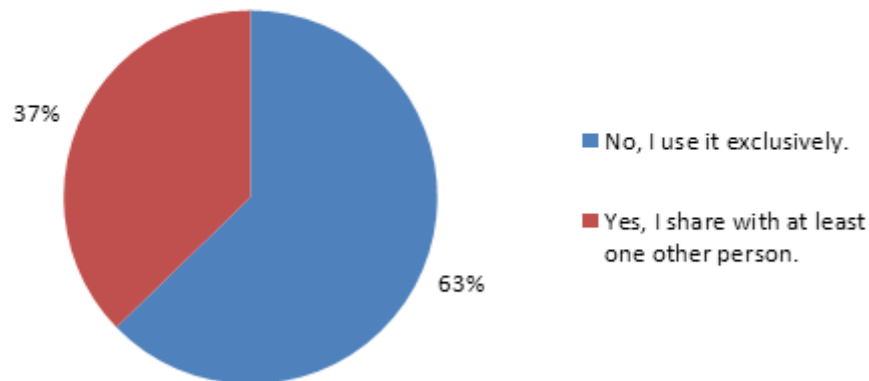


Figure 7. Approximately one-third of the respondents indicated that they share their iPad with others.

Satisfaction

Users were VERY positive about their iPad. Responses to the adapted SUS satisfaction questionnaire averaged 86.29 (SD = 12.08), 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” (78%). A smaller percentage reported it to be the “Best imaginable” (12%), while the remaining reported it to be “Good” (10%). None of the respondents rated it as “Fair”, “Poor”, “Awful”, or “Worst Imaginable”.

What is BEST about the iPad?

When asked what they liked BEST about the iPad, respondents indicated the variety of apps available, the larger screen size, overall ease of use, and portability. Figure 8 shows a tag cloud representation of the most frequent terms used when answering what they liked best.



What is liked LEAST about the iPad?

applications **apps** better camera data device docs documents download email
enough file **flash** heavy itunes iwork keyboard **lack** miss multi-tasking
multitasking screen support typing work

What iPad apps are BEST?

A word cloud featuring various web services and brands. The words are arranged in a horizontal, somewhat chaotic manner. The most prominent words are 'calendar', 'dropbox', 'mail', 'safari', and 'twitterrific'. Other visible words include 'angry', 'bbc', 'birds', 'evernote', 'facebook', 'goodreader', 'google', 'hd', 'ibooks', 'ipod', 'itunes', 'kayak', 'kindle', 'maps', 'mobile', 'netflix', 'news', 'newsrack', 'npr', 'numbers', 'ny', 'pages', 'photos', 'plants', 'player', 'reuters', 'things', 'times', 'today', 'usa', 'vs', 'weather', 'weatherbug', 'wired', and 'zombies'. The colors are primarily shades of blue and grey, with some white text for contrast.

11/9/2010



Figure 11. The screenshots of the Safari app on iPad (left) and Macbook (right) demonstrate the interface consistency across platforms.



Figure 12. Screenshots of Safari Exposé on iPad (left) and Macbook (right) demonstrate functionality across platforms

What iPad apps are liked the LEAST?

When asked which iPad apps they liked the LEAST, respondents mentioned Keynote the most, followed by the Calendar and the Wired Magazine app (see Figure 13). Users described Apple's Keynote application as not user friendly, having no functionality, and lacking the ability to access files between devices and compatibility with PowerPoint files (see Figure 14). The stock Calendar application was described to be greatly difficult to use. Conde Nast's Wired Magazine application was one of the most frequently mentioned applications. Besides its high price and failing to meet expectations, users also criticized its ad-infested, poor and inconsistent user interface (see Figure 15 and 16). Overall, a majority of the applications were listed in the "least favorite" category because they facilitated poor user experience.

calendar ipod keynote mail numbers pages safari
wired

Figure 13. The respondents' most frequently mentioned apps when asked about "least favorite" apps. The larger the text size, the more frequently that term was used by respondents when answering this question.

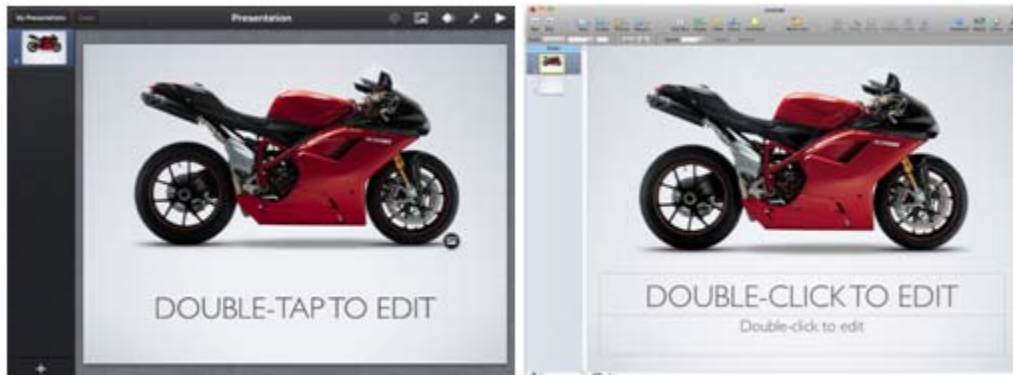


Figure 14. Screen shots of Keynote application on iPad (left) and Macbook (right) demonstrate the user interface inconsistency.



Figure 15. Screenshot of Wired app. Text that represent links (red boxes) are not easily distinguished from non-link text.



Figure 16. Screenshots in Wired app of advertisements and articles with multiple pages. The ad on the left indicates there are multiple pages (bottom arrow), whereas the middle article does not. The screenshot on the right shows an example of single- and multi-paged articles from a different view.

CONCLUSION

Overall, the survey respondents report very high satisfaction with the iPad. For the most part, they are utilizing their iPads as Apple had planned - as a leisurely device. As with any first-generation device, however, there is room for improvement. Respondents identified deficiencies both in the hardware (e.g., lack of camera) and software department (e.g., poor apps).

There were some surprising results regarding some tasks on the iPad. Nearly 80% of users reported engaging in social networking daily or hourly. However, approximately 70% of users reported they never post photos. This is interesting since photo posting is one the main features of social networking sites such as Facebook and Twitter. We speculate the reason is because the lack of an on-board camera for the iPad. Only photos that have been transferred via computer or dock connector can be posted. A camera would allow a user to take and upload a picture on-site.

This study revealed more specific issues that should be addressed in future research. iPad applications were mentioned most frequently when participants were asked what they liked best AND least about their iPads. Applications were liked for their variety and availability, but disliked for their inconsistencies. Inconsistencies within and across applications should be investigated in order to increase user satisfaction and user-friendliness.

Another approach is to focus more closely on a specific application to address specific usability issues within that application. Possible candidates are Apple's Keynote and Calendar applications, which were cited most frequently as poor. It would be interesting to compare users' mental models and expectations for iPad applications, especially for those that may not have experience using an iPhone or app-based device. Such investigation will most likely reveal the lack of UI standardization across app development. Clearly, this is an area which needs further exploration to ensure consistency and positive user experience.

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