digital media in everyday life

a snapshot of devices, behaviors and attitudes

PART 3:
Comfort and Confidence

museum of
science+industry
chicago

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About the Study

The Museum of Science and Industry, Chicago, conducted a national survey of youth and adults in August 2011. Our purpose was to help us better understand our audience and their relationship to technology and digital media, and in turn, inform the development of our digital initiatives.

Our definition of “audience” is necessarily broad, including guests to the physical Museum as well as users of our online, mobile, and social media experiences. It was not only important for us to understand what mobile devices guests might bring to the Museum, but also how users behave online and in social networks, which activities and media occupy their time, and their attitudes toward digital experiences in general.

Presented in a three-part report, this study captures the digital lives of a broad spectrum of users in a time of rapid change. We hope the data will suggest new and deeper points of connection with a population seeking and consuming information in new ways, expecting technology to make experiences more immediate, personal and empowering. Understanding this diverse audience and their interactions with digital media will help us design intuitive experiences that engage these groups in unique and meaningful ways.

We approached the task of analyzing the digital lives of our audience from three perspectives:

Part One: Mobile Device Ownership
What mobile devices do our audience members own, and what will they own in the near future? How many people own smartphones, feature phones, or other app-enabled devices, and what groups are most likely to own these device types? What else could affect access to mobile experiences we develop, and how could we optimize access by design? *Part One can be downloaded at http://msichicago.org/digitallife.*

Part Two: Usage by Audience and Platform
In this segment, we look at what adults and youth do across online, mobile and social media platforms. How do digital fluencies and media consumption differ between users? Does owning an app-enabled device affect the amount of media consumed across platforms, or the level of engagement with digital media? *Part Two can be downloaded at http://msichicago.org/digitallife.*

Part Three: Attitudes About Digital Media
How do users feel about their relationship with digital media? Who feels comfortable with and empowered by digital media and technology, and who feels left out? How do self-perceptions of one’s own knowledge and skills with digital media compare to stated behaviors and devices used?

Methodology

This report is based on two nationally representative web panels, recruited via email, of 851 adults (ages 18 and older) and 909 youth (ages 8 to 17) conducted by the Museum of Science and Industry in August 2011. Youth were invited to participate through their parents.

Gender:
Adults: 47% male, 53% female
Youth: 51% male 49% female

Household Income (adults):

Less than $40,000	28%
$40,000-$59,999	17%
$60,000-$79,999	17%
$80,000-$99,999	13%
$100,000-$149,999	11%
$150,000 and above	6%
I'd prefer not to say	7%

Margin of Error:
Margin of error in this study is +/- 3.36 percentage points for adults and +/-3.25 percentage points for youth. (Margin of error may be higher when looking at subgroups within the two larger surveys.)

Definitions of Terms:
Mobile Device: A cell phone, smartphone, or other handheld app-enabled device such as an iPod Touch or tablet computer. (This does not include handheld gaming systems or other devices such as cameras or MP3 players.)
Smartphone: A web- and app-enabled cell phone
Feature Phone: A cell phone without a data plan or access to an app market
App-enabled device: Either a smartphone or other handheld device that is internet-capable and can download apps, such as an iPod Touch or tablet computer (This does not include feature phones.)
Tablets: A handheld tablet computer such as an iPad or Motorola Xoom. (Does not include laptops or netbooks.)
Youth: All kids and teens between 8 and 17 years old
Teens: Teenagers between 13 and 17 years old
Tweens: Pre-teens between 10 and 12 years old
Kids: Children between 8 and 12 years old
Adults: Anyone 18 years old or above

Introduction to Part Three

The purpose of this study was to understand our audience's relationship with technology in order to inform what digital media we design, and to understand how our users would engage with those experiences when given the option. However, analyzing what mobile devices users own and how they use digital media in their own daily lives—as we did in the last two reports in this series—does not tell the whole story.

Attitudes toward digital media, and the perception of one's own abilities with it, influence whether a person will choose to engage with or avoid a technology that is outside their normal habits. Understanding these self-perceptions can help us gauge how users would respond to new digital media experiences that we produce—if, for example, we built an in-gallery mobile app, which smart device owners would be curious to use it, and who might feel reluctant or intimidated? Developing device-agnostic interactives (such as touchscreen kiosks or apps on loaned mobile devices) raises the same question: how comfortable is our audience with using technology in general, and in public contexts, specifically?

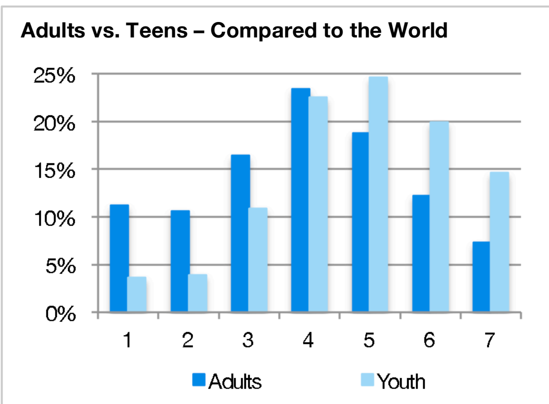
We asked respondents 13 and up to rate their own comfort with and knowledge of digital media in three contexts—compared to their perception of the "rest of the world", compared to their friends, and compared to their family. We also asked how often they chose to use technology in environments when another option was available, such as using a kiosk to check in for a flight at an airport, or ordering movie tickets online. When cross-examined with the data we have on demographics, mobile device ownership, and media habits, we found interesting gaps both between user groups and within those groups.

We found that there is a more significant digital divide among adults than among teens. This divide often, but not always, corresponds to what mobile devices the respondents own. There is also a large difference in self-perception between teens and adults, no matter what devices they own. Finally, we observed a clear divide within the family, with youth identifying themselves as the digital experts, and adults, for the most part, agreeing.

Greater Digital Divide Among Adults

Overall, teens feel more confident with digital media than adults. In all three cases (compared to the world, friends, and family), more than half of teens rated their comfort with and knowledge of digital media highly—between five and seven on a scale of seven. Relatively few teens ever rated themselves on the lowest end of the spectrum.

Adults, on the other hand, were much more evenly distributed. Roughly the same number of adults rated themselves the lowest (22%) and the highest (19%) in comfort and knowledge compared to the rest of the world. In each context, adults were three to four times more likely than teens to give themselves the lowest rating (1), "not comfortable or not knowledgeable".



This means that more adults are farther apart on the scale of digital literacy, and that there is a bigger gap in adults between the digitally-savvy "superusers" and those who are reluctant to engage digitally at all. This gap exists in teens as well, but not only are the number of those at the lowest end smaller, the differences in how those with the highest and lowest self-ratings actually use digital media and technology are not as great.

The User Spectrum: "Superusers" vs. the "Disengaged"

Adults

The 22% of adults who rated themselves lowest on their comfort with and knowledge of digital media skewed female (63%), older (80% over 35), and are less likely to have a college degree (32%) than adults overall in this study. The 19% of adults who rated themselves highest (6-7) on the scale skewed male (59%), younger (47% under 35) and more educated (48% have a college degree) than all adults in this study.

One key question we asked ourselves was if this gap is due to a misconception about adults' own abilities and usage of media and technology. In the face of rapidly advancing digital media it is easy to see how some users might underestimate their level of digital fluency when in fact, they participate in these media as much as their peers. However, we found that these self-perceptions were largely proven true by users' behaviors both with their own devices as well as with technology in public spaces.

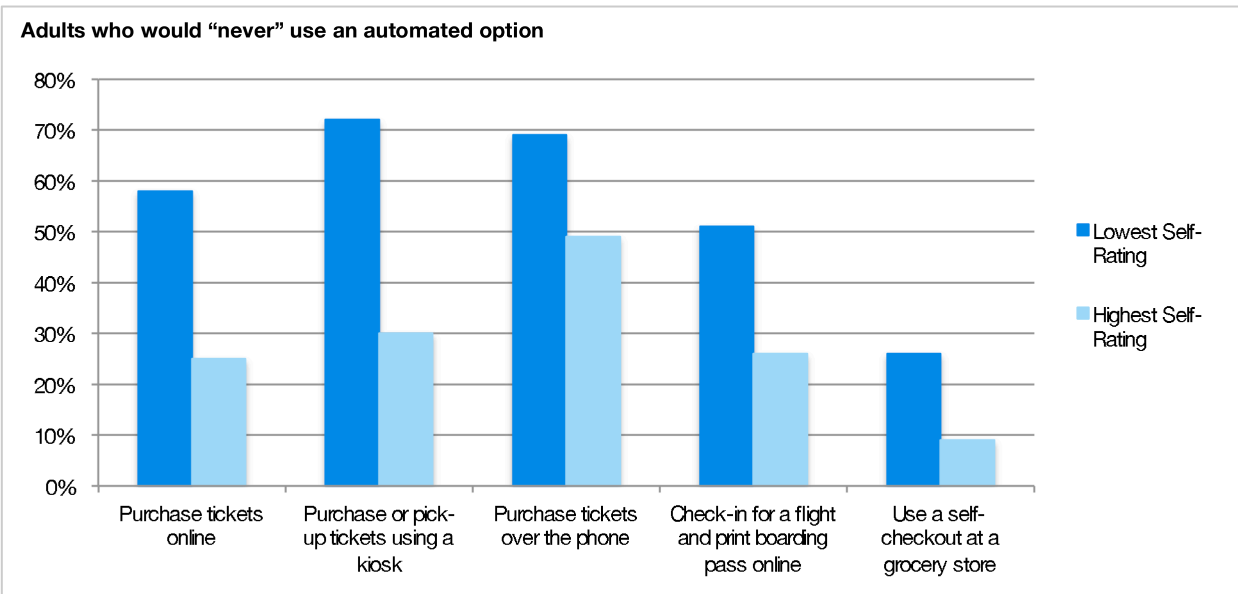
"Disengaged" adults who rated themselves lowest (1-2) in comfort and knowledge were much less likely than the overall adult population to use technology in everyday interactions when given the option. For example, 58% said they would "never" buy tickets to a movie, museum or event online, 72% said they would never use a ticket kiosk, and 69% said that they would never purchase tickets over the phone. For this group, technology seems to be a barrier, not a help. Adult "superusers", however, were two to three times as likely as the overall adult group to "always" use the digital option, when given a choice.

These differences between the Disengaged and the Superusers were also reflected in a range of ways they use digital media while using their own devices. Although the Disengaged are online regularly and own mobile devices in large numbers, they are much less engaged in almost all behaviors across all platforms than their peers who perceived themselves as very comfortable with digital media.

Disengaged adults participate in most of the same online and mobile activities, such as email, texting and online gaming, but Superusers engage in those activities much more frequently and deeply. For example, most disengaged adults use social media (66%), but adult superusers are four times as likely to post on a friend's Facebook wall daily, three times as likely to "like" something five times a day or more, and 10 times as likely to IM with a friend in Facebook. Superusers also demonstrate more knowledge and use of newer digital technology—for instance, 63% of Superusers knew what a QR code was, and a third scan them regularly, while only 23% of Disengaged adults knew what they were and just one respondent scanned a QR code regularly.

Teens

The differences between teens who rated themselves high and those that rated themselves low on their comfort with digital media were much less clear. Both groups were similar in age and gender breakdown, and engaged in most online activities to similar degrees. Teens who rated themselves highly were more likely to have their own computer, but also reported using computers at school, at a friend's house, and at the library in much greater numbers than teens who rated themselves low. These Superuser teens also reported engaging in Facebook behaviors more often than their peers, but since all teens are much more active on Facebook than adults, these differences were less pronounced.



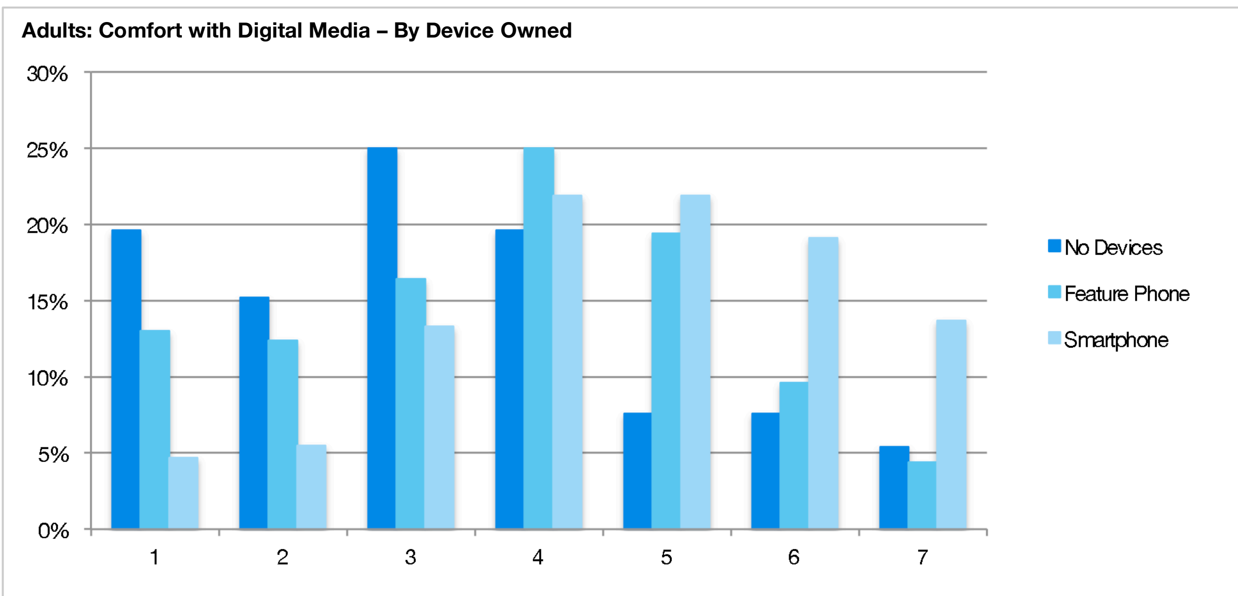
Mobile Devices and Digital Literacy

Adults

There was a strong correlation in adults between a high-self rating and owning a smart device. Adults who own a smartphone were about twice as likely as those with feature phones or no devices to consider themselves very knowledgeable about and comfortable with digital media (6-7). In all three questions, less than 5% of adults with smartphones said that they were "not comfortable or not knowledgeable" with/about digital media.

However, having a smartphone—or any mobile device—does not necessarily translate to increased comfort and confidence with all digital media.

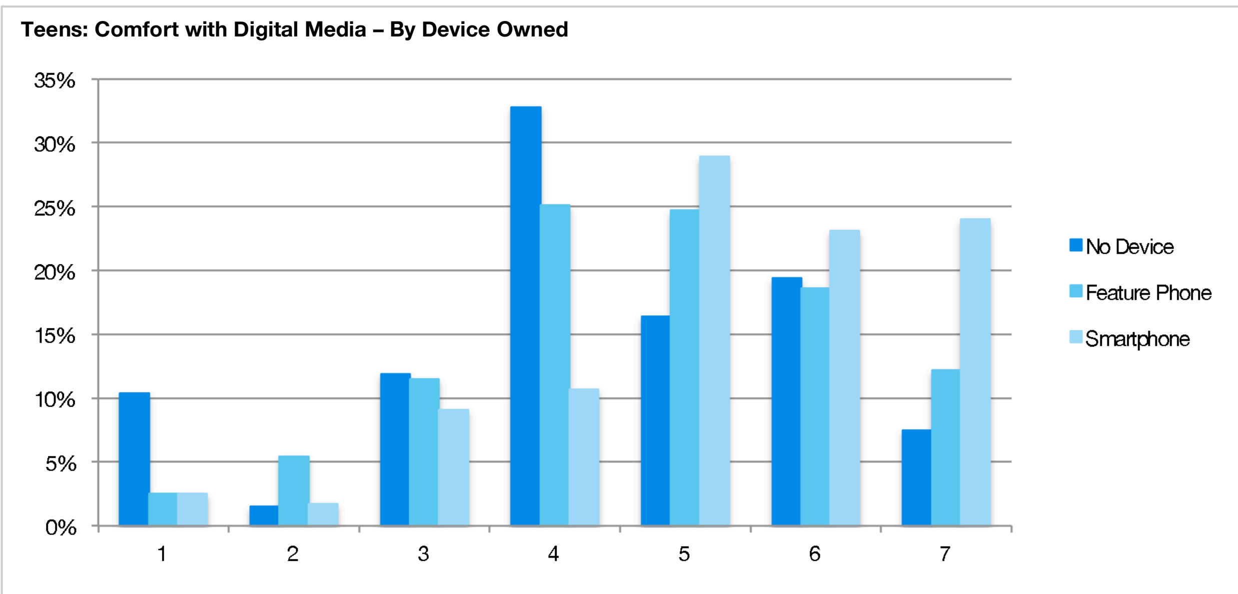
Almost half (49%) of the adults who rated themselves the highest in comfort own a feature phone or no mobile devices at all. The correlation is less likely between owning a smartphone and having higher digital fluency, but rather, between those who are already interested in, familiar with, and comfortable with digital media and a higher likelihood that they will buy a smartphone. In fact, 50% of adult Superusers who do not own a smartphone expected that they will get one soon—a far higher percentage than the 29% of the general group anticipating to make the change.



Teens

There was much less of a correlation in teens between mobile device ownership and perceived digital fluency. Those with smartphones were still the highest overall, but a much greater proportion of teens with feature phones or no mobile devices rated themselves high as well (measured as between five and seven on this scale). The greatest difference was between adults and teens who do not own a mobile device—for teens, not having any devices did not seem to greatly affect their comfort with digital media in general. Adults without any device, on the other hand, were three times as likely to call themselves "not comfortable or knowledgeable", and to disengage with other technology (kiosks, online ticketing, etc.) in the environment.

This indicates that not only are mobile devices not as critical to basic digital fluency for teens, they are not as critical to their perceived confidence as digital citizens. Teens likely have more opportunities to use digital media and technology outside of their mobile devices in daily life than adults do. Mobile devices are an important point of access and skill-building in this media ecology, then, but not the only one.



The Digital Gap Within the Family

Finally, the biggest gap between adults and teens—and one that is particularly interesting for institutions like ours—is in perceived digital fluency compared to one's family. Although adults rated themselves slightly higher compared to their families than compared to their friends or the rest of the world, teens were even more overwhelmingly confident in their abilities. Only 3% of teens rated themselves as having the lowest ability (1) compared to their families, and 70% rated themselves as very comfortable and knowledgeable (five-seven). In the family group, then, the teen is the most confident with digital media, and would likely take the lead in using a new digital experience.