



Survey of User Needs 2019: People with Disabilities and Mobile Phone Use

2021 | Crawford Research Institute | R. Anderson, J. Morris, N. Thompson, B. Lippincott, & E. Radcliffe

Analysis Groups



Overall



Mobility



Dexterity



Cognitive



Blind



Deaf

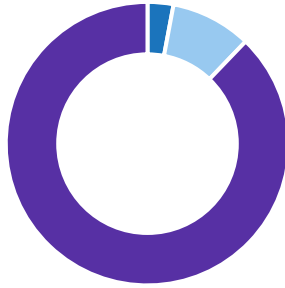
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Having a Cell Phone and Usage

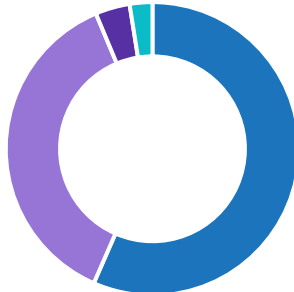
Having a Cell Phone

- I do not own or use a mobile phone
- Basic phone
- Smart phone



Cell Phone Usage

- Almost constantly
- Several times a day
- About once a day
- Less than once a day



Having a Cell Phone:

97.0% of people with disabilities have a cell phone.

When asked what type of cell phone they have, 9.2% identified having a basic phone and 87.8% have a smart phone. iPhones are the most common smart phone (67.6%) used by people with disabilities followed by Android smart phones (34.24%).

Cell Phone Usage:

When asked *How often do you use your mobile phone?* over half (56.5%) said ‘almost constantly’, followed by ‘several times a day’ (37.1%) and ‘about once a day’ (3.8%).

97.5% of people with disabilities use their cell phone daily.

“Love”

“Necessary”

“I need it”

“Indispensable”

“Freedom”

Feelings about Cell Phones

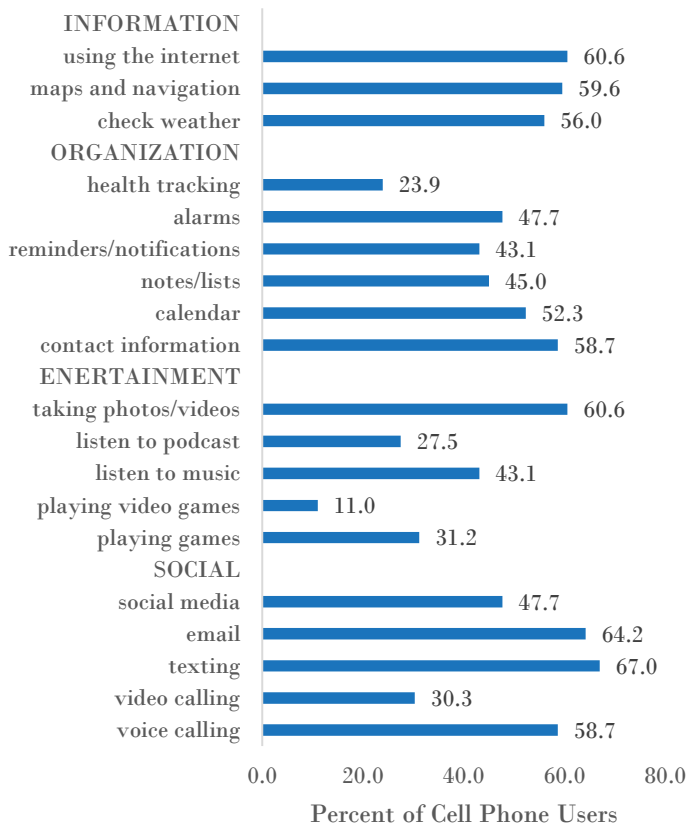
When people with disabilities were asked *What single word of phrase best described your feelings about your mobile phone?*, the patterns are clear; cell phones are an integral part of daily life.

On page one, we present a word cloud of all responses. Nearly all responses were positive, with only 2.7% of responses being neutral or negative (e.g. frustrating, unsuccessful, fine).

The most common responses are posted to the left: “Love”, “Necessary”, “I need it”, “Indispensable”, and “Freedom”.

Of note, when analyzed by disability type, there were no notable differences in responses from all people with disabilities.

Cell Phone Use Options



Cell Phone Use

For gathering information, most people with disabilities use their phone to access the internet (60.6%), maps/navigation (59.6%), and weather (56.0%).

For organization, the most common use is contact information (58.7%) followed by using a calendar (52.3%), alarms (47.7%), notes/lists (45.0%), reminders and notifications (43.1%), and tracking health data (23.9%).

For entertainment, over half of people use their phone to take photos and videos (60.6%) with less than half listening to music (43.1%), listen to podcasts (27.5%), play games (31.2%), and play video games (11.0%).

For social interaction, the most common use is texting (67.0%) followed by email (64.2%), voice calling (58.7%), social media (47.7%), and video calling (30.3%).

Top Uses of Phone



Internet Access
60.6%



Email
64.2%

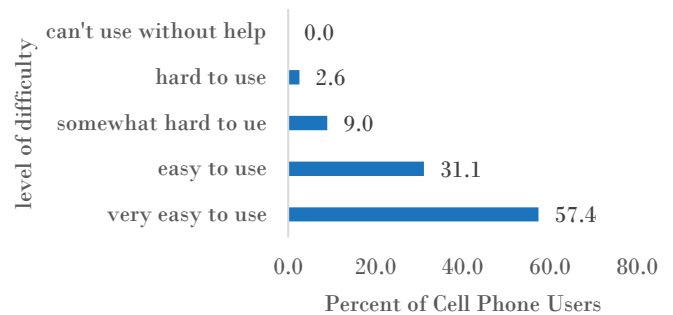


Texting
67.0%



Taking Photos and Videos
60.6%

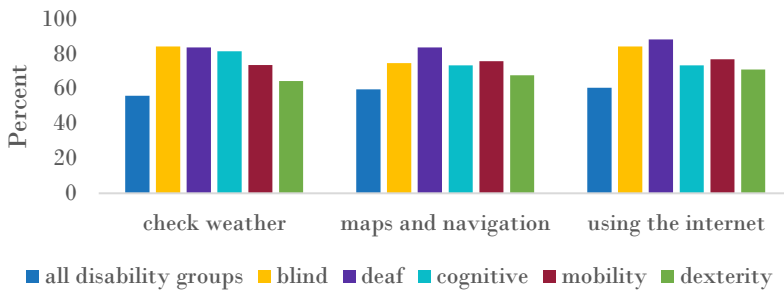
Difficulty of Cell Phone Use



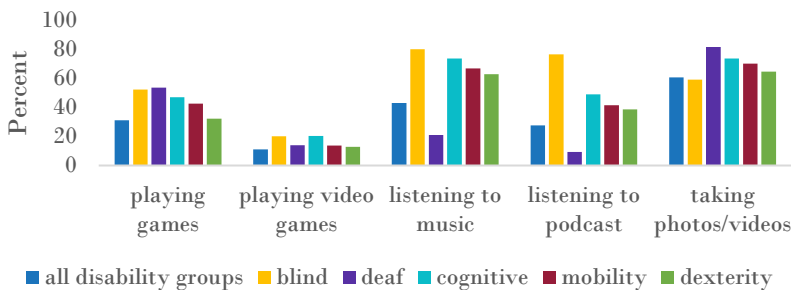
When asked *How easy is it for you to use your mobile phone?*, most respondents stated their phone was 'very easy to use' (57.4%) with less stating the phone was 'easy to use' (31.1%) and 'somewhat hard to use' (9.0%).

Phone Use by Disability Type

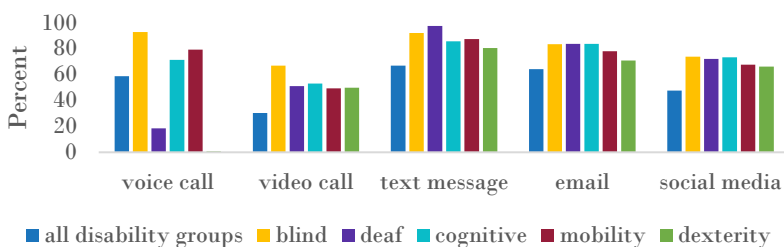
Using Smart Phone for Information



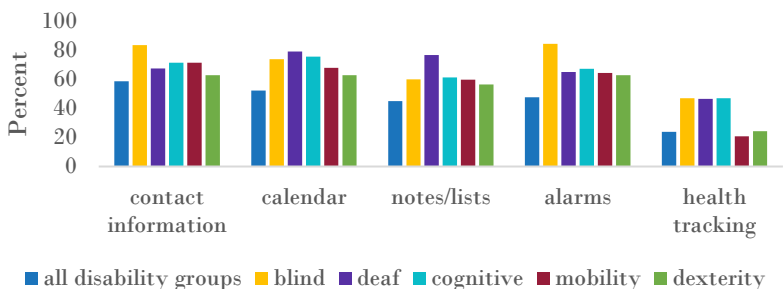
Using Smart Phone for Entertainment



Using Smart Phone to Interact with Others



Using Smart Phone for Organization



Significant Differences ($\alpha < .05$)

Information

Blind people check weather updates more often ($\Phi=.175, 84.3\%$)

Deaf people use maps and navigation more often ($\Phi=.095, 83.7\%$)

Blind people ($\Phi=.134, 84.3\%$) and deaf people ($\Phi=.107, 88.4\%$) use the internet more often

Entertainment

People who are blind play more games ($\Phi=.133, 52.2\%$)

Blind people ($\Phi=.304, 80.0\%$) and people with cognitive limitations ($\Phi=.124, 75.3\%$) play more music, while deaf people play less music ($\Phi=-.276, 20.9\%$)

Blind people listen to more podcasts ($\Phi=.452, 76.5\%$) and deaf people ($\Phi=-.254, 9.3\%$) listen to fewer podcasts

Deaf people ($\Phi=.119, 81.4\%$) take more pictures

Interact with Others

Blind people ($\Phi=.335, 93.0\%$) and people with mobility limitations ($\Phi=.106, 79.3\%$) voice call more, while deaf people voice call less ($\Phi=-.420, 18.6\%$)

Blind people ($\Phi=.228, 67.0\%$) video call more often

Blind people ($\Phi=.157, 92.2\%$) and deaf people ($\Phi=.139, 97.7\%$) text more

Blind people email more often ($\Phi=.128, 83.5\%$)

Blind people ($\Phi=.143, 73.9\%$) and people who have cognitive limitations ($\Phi=.124, 73.5\%$) use social media more often

Organization

Blind people use their contact information more often ($\Phi=.202, 83.5\%$)

Blind people use their calendar more often ($\Phi=.114, 73.9\%$)

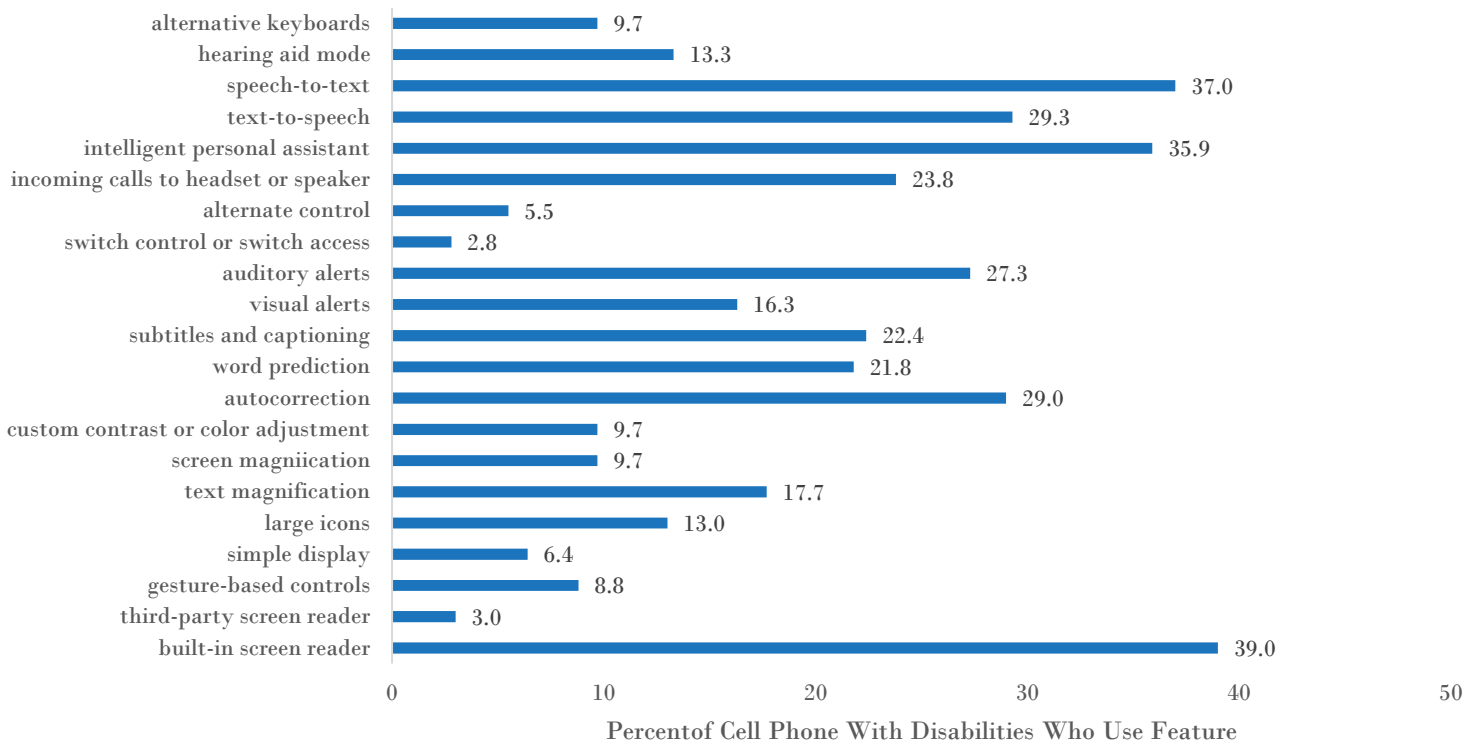
Deaf people use notes/lists more often ($\Phi=.145, 76.7\%$)

Blind people use alarms more often ($\Phi=.278, 84.3\%$)

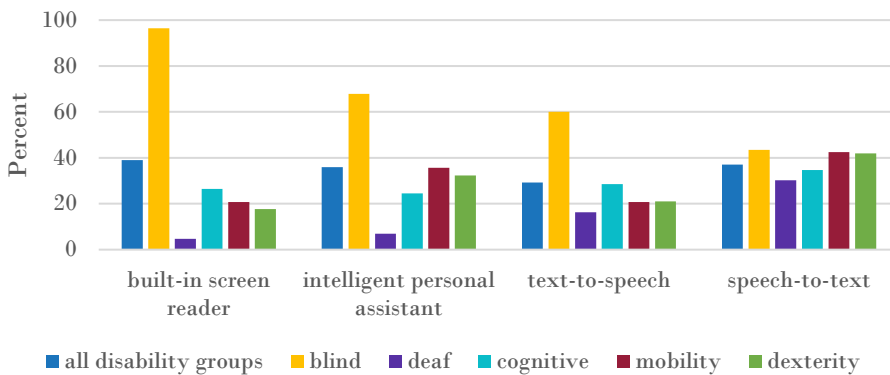
Blind people ($\Phi=.187, 47.0\%$) and people with cognitive limitations ($\Phi=.108, 46.9\%$) use health tracking more often

Accessibility Features on Phone

Accessibility Features



Top Accessibility Features by Disability Type



Significant Differences ($\alpha < .05$)

Built-In Screen Reader

Blind people use the built-in screen reader more often ($\Phi=.806, 96.5\%$), deaf people ($\Phi=-.258, 4.7\%$) and people with dexterity limitations ($\Phi=-.198, 17.7\%$) use the screen reader less often

Intelligent Personal Assistant

Blind people use the intelligent personal assistant more often ($\Phi=.454, 67.8\%$) and deaf people use it less often ($\Phi=-.221, 7.0\%$)

Text-To-Speech

Blind people use text-to-speech more often ($\Phi=.461, 60.0\%$) and deaf people use text-to-speech less often ($\Phi=-.105, 16.3\%$)



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Data for this analysis are from the Survey of User Needs for Information and Communications Technology (SUN-ICT)-2019. (Analytical N= 362, Qualification Criteria: 18 or older adults in the US with self-identified disabilities.)

