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A Special Thanks

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Executive Summary





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Executive Summary

For over a decade now, Link-age Connect has been conducting the "Technology Use Among Older Adults Study" every two to three years. With each study, we have probed deeper into the use, opinions of and barriers to adoption of various technologies in the categories of Communication & Entertainment; Safety, Security & Smart Home; and Health & Wellness.

With so many studies fielded at the onset and during the height of the pandemic, we thought it prudent to field our study in 2021 to get a better look into the current pulse of the 55+ adults in the United States and how that compares to our findings from 2019. Has the pandemic *really* changed the opinions, use and adoption of technology within this cohort, or is that just a perception?

Our study was fielded as an electronic only survey from April 28 – June 20, 2021 across the United States via multiple channels. The top line findings overall are not much different than those we highlighted in 2019, even given the extreme conditions all faced during the pandemic. As a matter of fact, some may argue that in many aspects the older adult demographic weathered this pandemic much better than their younger cohorts.

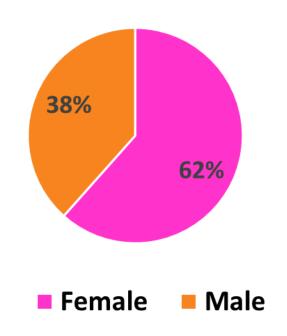
Our 2021 study included the identical questions from the 2019 survey with a few additions relative to new technology to the market and specific questions about the impact of the pandemic. Again, our data did not find dramatic changes between these two studies. Those that one would expect, such as video conferencing, virtual doctor visits and how an older adult is learning about technology have changed some, but certainly not what many have assumed would happen. The reality is, more older adults than most would think were already doing these things and using these devices. The question is, how can we make them so they can and will be used when physical conditions from aging prohibit their use?

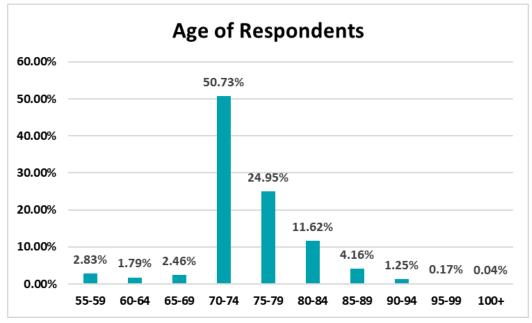
This report is a summary of the findings, insights gleaned, direct quotes from the rich robust freeform text and potential opportunities for the categories explored to help all better understand the older adult as a consumer of technology.

Our Respondents

2,398

total





34% Live Alone

52% Married



Key Findings

Ownership

While the pandemic has proven to change so many things in the lives of all, ownership of devices really has not shown significant changes since our 2019 study.

Land Line Ownership is up slightly (3%) from 2019 with 57% of our respondents reporting still owning a land line. Within the ages surveyed, those who are 70-74 (53%) and 75-79 (61%) had the highest ownership of land lines. This number is higher than the National number reported by Nationalinterest.org* that only 40% of US Households now own a land line. Factors that play into not cutting the cord for a land line are security and reliability. Those who haven't parted with their land lines have a perception of more reliability of this over a mobile device, as well as there are still home security companies and some health related devices that require a land line.

Smart Phones. According to PEW Research**, 95% of adults ages 18 – 49 own a smart phone. With the exit of the flip phone at the end of 2020, the choice for an alternative to a smart phone is virtually non-existent. This year's study reported that **83%** of our respondents own a smart phone, up from 74% in 2019; however this percentage decreases with age:

"Can't keep up with new cell phones they change so much and haven't paid off the one I have." Female age 70-74 Smart Phone Ownership

100%
90%
80%
77%
60%
60%
40%
40%
30%
20%
10%
65-69
70-74
75-79
80-84
85-89
90-94

"only own a smart phone because some financial accounts require it otherwise, landline is cheaper & much less trouble" Male age 75-79

^{* &}quot;Cable and Satellite TV Death Spiral: Lost 862,000 Subscribers in the Third Quarter" Article by Steven Silver (Nov 11, 2020)

^{**} Survey of U.S. Adults" (2021)

"my computer is vital to my connected and involved and happy life! the phone has become necessary for countless reasons...tablet keeps me entertained...i am a bit concerned about privacy but grateful for the technology i am able to use!" Female age 85-89

This population continues to have a **high ownership of PC's** (72%), laptops (66%) and tablets (58%), with PC ownership actually increasing by 11% since 2019. Some of this may be attributed to the pandemic as people were forced to stay home and our research shows that larger screens are preferred for many tasks when they are available. This may also explain the slight decline in tablet ownership as the mobility feature of the tablet was not a necessity during the past 18 months.

New to our study in 2021 were **streaming devices**. Over the past couple of years we have seen the trends of cutting the cord on subscription TV and the option of streaming with devices and online services becoming more the norm. These options are much more cost prohibitive and seem to offer a simpler solution to consuming content. According to Forbes Magazine, in 2020, 6.6 million people unsubscribed from paid TV. If this trend continues, we could see about twelve million cancelations by the end of 2021. At the same time, Netflix saw an increase in subscribers from the fourth quarter 2017 to 2020 of 93 million and that number is expected to climb by another almost 100 million by the end of 2021.

Our respondents are certainly following that trend, albeit not as quickly as the younger age groups; however **40% of our respondents own a streaming device**. The lower numbers in older adults compared to other age groups could be attributed to a few factors; the first is access to internet. Although 89% of our respondents report having WIFI in their home, the more important question is the capability of that connection. Our past research of this topic has shown that older adults on fixed incomes are less likely to upgrade a service like internet connection unless it is absolutely necessary. Other factors may be the perceived cost and complexity of these devices. As we will see later in this report, these two factors play an important part on ownership and adoption.

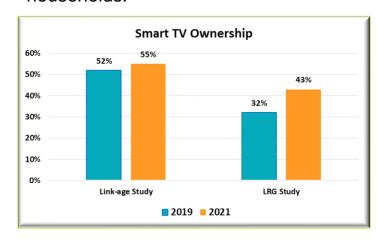
Despite Cable and Satellite Television Services continuing to lose subscribers to no or lower cost streaming alternatives, **73% of our respondents have cable (55%) or satellite (18%)** currently, which is about 13% higher than the national average. According to the latest informative multiscreen index, as cited by Advanced Television, the top ten subscriber services now have just 60% of television homes. Further, **70% of those who are subscribed to cable or satellite TV have no intention of canceling**, according to a study from Gfk MRI.

"I think the technology isn't the issue. It's the fluctuating connectivity to the Internet that is a problem."
Female age 70-74



According to a Study Conducted by Leichtman Research Group* released June 4, 2021, about 43% of all TV sets in US Households are Smart TVs, which is an increase from 32% in 2019. Likewise, our respondents' ownership of Smart TVs increased and older adults have a **higher percentage of ownership** than all US households.





Our past research has shown that older adults are willing to invest in upgrading their televisions, more than any other tech device; and given the current market of televisions, there are much fewer TVs available that are NOT smart. So like mobile phones, out of the many choices of TVs available, just about all are Smart options.

Up 5%

Smart Displays
from 2019
Only 9% ownership



Smart Speakers from 2019 27% ownership



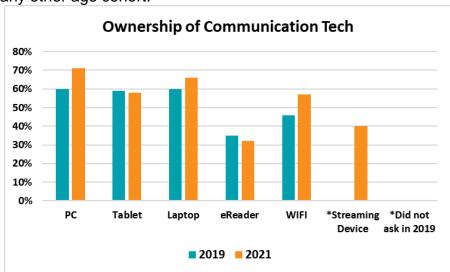


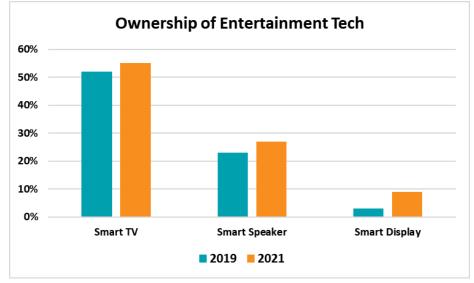
Ownership of other tech.

Over the past decade, we have seen a **steady increase** in the ownership of many types of technology with older adults, and the adoption of new technology among older adults continues to skew older and older. However, **need**, **simplicity**, **affordability** and **practicality** continue to play major roles in what older adults are using, replacing and focusing on in their day-to-day lives. The need or want for technology focused on health outcomes and monitoring health or behavior continue to decline. A key factor for this could be the emergence of many new technologies that have such features embedded in them rather than a separate device for each functionality. Many of the smart watches can monitor movement and health stats and act as a security or panic device as well. Even traditional fitness trackers saw a decline over the past couple of years, while visiting a virtual physician increased, likely due in most part to the pandemic. These charts represent an overview of ownership among the categories we surveyed. Compared to a PEW Study of all US Adults* age 18+, our respondents have a slightly higher ownership of tablets (PEW 53%) and slightly lower ownership of laptops (PEW 77%). This is consistent with numerous studies on older adults owning more tablets than any other age cohort.

"I consider myself fairly techsavvy and open to learning about new tech, but I'm only interested in adopting new tech that meets a specific need in my life, not just for the sake of having the latest thing or a new "toy. ""

Female age 65-69

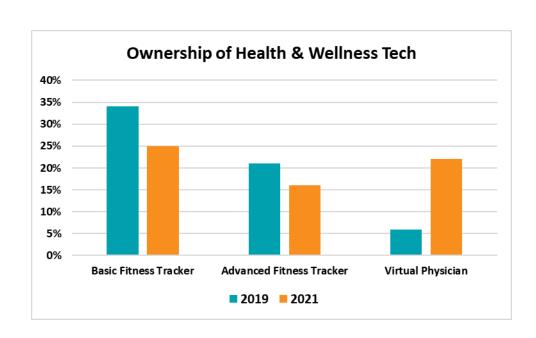


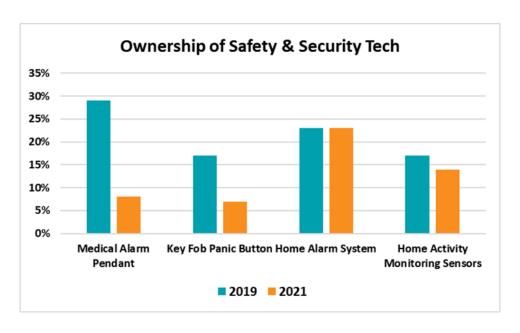


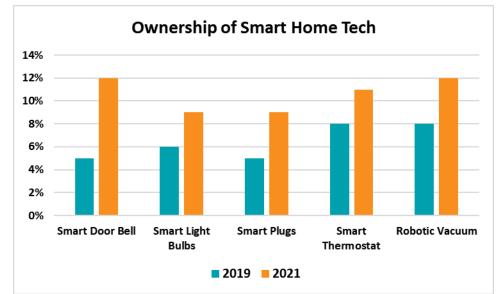


Ownership of other tech.

As we have highlighted in past studies, those technologies that focus on an illness or condition have never been well received or adopted, and those numbers continue to be consistent. However small they may be, ownership of those devices that play a part in enhancing, entertaining and communicating continue to increase.





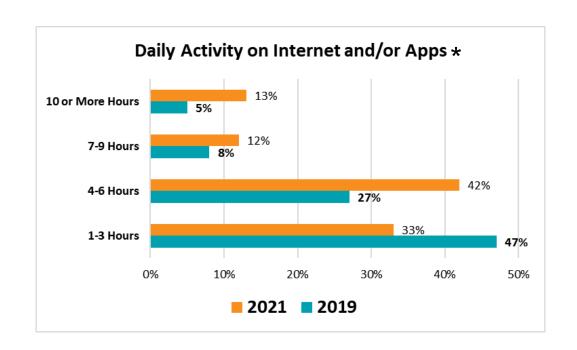


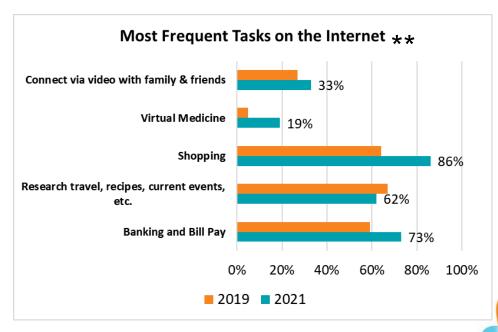




The Pandemic increased time on the internet.

- In 2019, 47% of our respondents reported spending 1-3 hours per day on the internet or apps. In 2021, 42% spent 4-6 hours.
- Those spending 10 or more hours daily on the internet jumped from 5% to 13%.
- The top three tasks remain the same, but more people are doing them.
- Although only 19% participate frequently in virtual medicine, it is up from only 4% in 2019.





^{*}Q= How many hours per day would you say you are actively on the internet and/or apps? Please include all devices with internet access.

^{**}Q= Please tell us what you frequently do on the internet or by using apps (check all that apply).

ok•ade

In their words...

"Technology was responsible for keeping me sane during the lockdowns and isolation of the pandemic."

Male age 70-74

"I need to upgrade my computer, but I think I spend too much time on line as it is." Female age 75-79

"I have learned so much through the internet. During lockdown, I was able to keep in contact with the people I love. Through FB groups, I have increased my sewing skills." Female age 75-79

"i learn most of my knowledge of technology from my daughter or from the internet, mostly from youtube. it isn't too difficult to learn, just need to get used to it."

Female age 70-74

"I couldn't imagine life without Wifi and the internet now, but the constant upgrades and changes, some of which are nothing more than a grab for additional revenue vs actual improvements, is maddening."

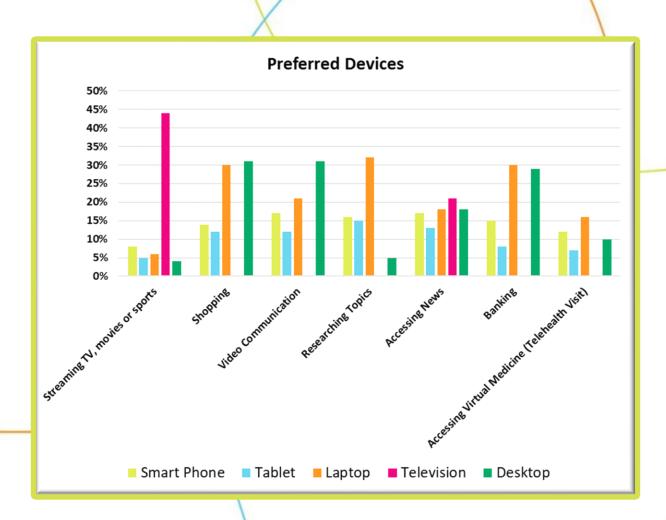
Male age 70-74

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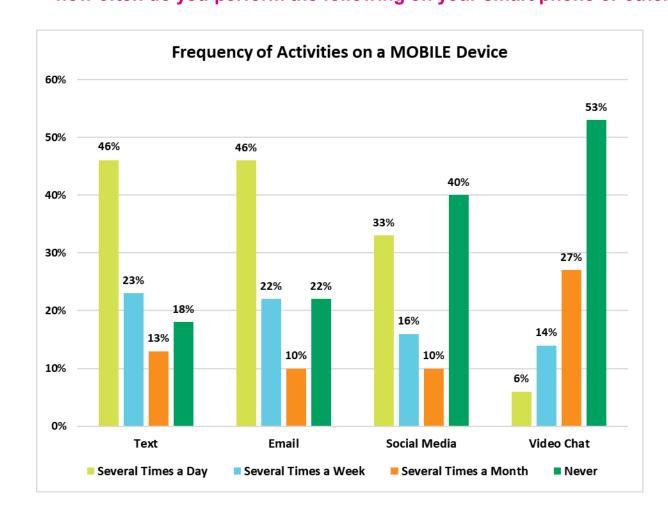
It's all about the screen size!

New in 2021, we asked about the ONE device used most frequently. Larger screens are definitely preferred for streaming television programs, movies or sports, or for researching topics and banking. This data is consistent with LRG's Connected TVs 2021 Study of 2,000 adults age 18+, which reported that 78% preferred to watch videos on a TV set, and only 8% on a smart phone.

Interestingly, while larger screens are preferred for shopping, researching topics and banking, the TV is NOT preferred for these tasks; even though smart TVs have this capability. For these tasks, the laptop and desk top are still the go-to.



Mobile Devices...used now by older adults for many activities, we asked, "how often do you perform the following on your smart phone or other mobile device?".



Over the past several years, ownership and usage of mobile devices, especially smart phones continues to climb, but certain tasks on these devices prove to be unfavorable for many, especially older adults.

I use a laptop, tablet and phone but would like to learn more about apps that I would enjoy and use them more. The phone works well for calls, texts and reading but is too small for me to find it useful for internet work. For that I prefer the laptop even over the tablet - the size works better given how "busy" most websites are. Female age 65-69

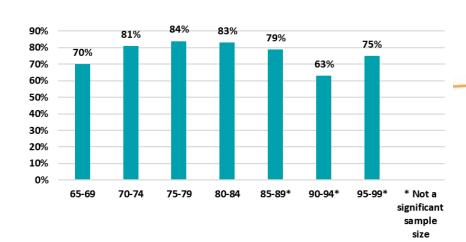


The Impact of the Pandemic

81%

say their opinion of technology has **NOT** changed since the beginning of the pandemic.*

(remaining fairly consistent across all age breakdowns)



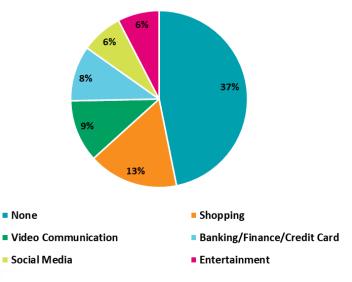
This question was asked in freeform format and answers were summarized in categories.

- Shopping included all answers from general to specific retailers, grocers and on-line shopping. Most mentioned were Amazon, WalMart and Target.
- Video Communication included Facetime, Zoom and Skype.
- Banking/Finance/Credit Cards were all apps related to financial institutions, wealth management, investment companies & funds, and all credit card companies.
- Social Media included Facebook (56% of the responses), Twitter, SnapChat, TikTok and Instagram.
- Entertainment included Hulu, YouTube, Netflix, Roku, Peacock and Amazon Prime Video.

App Usage

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Question: Please list any apps you have begun using in the past twelve months and use on a regular basis.

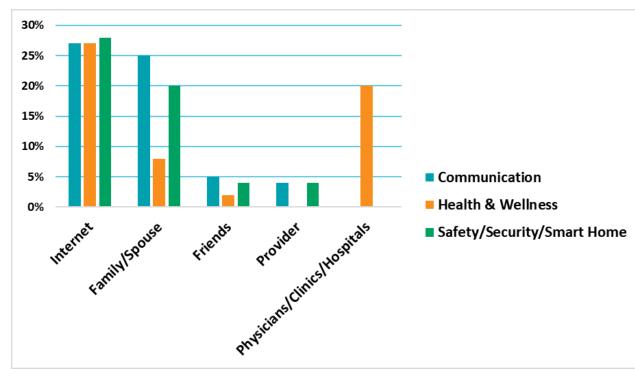


37% stated that they have not begun using ANY new apps in the past twelve months.

Others with smaller percentages mentioned were Health & Fitness devices, such as Fitbit or Apple Watches, news, weather, sports, food, restaurants, navigation and survey/opinion apps.

*See Appendix for all freeform text of those who answered "Yes" to their opinion of technology changing since the beginning of the pandemic.

SOURCES for learning about technology vary based on the category.



Questions: Each category was asked in a separate question. What or who is your number one source for learning about technologies in the category of Communication (Health & Wellness and Safety/Security/Smart Home)? These questions were asked in freeform format.

Who older adults turn to when they want to learn about technologies is not always the same, especially when it comes to health technology. Consistent with our past studies, they still rely heavily on their health care provider to inform them about Health & Wellness related technologies, whether this be their physician, clinic, hospital or other practitioner.

The internet has and continues to be a go-to source for many, including older adults, and has grown since our last study, while family and friends have decreased in sources for this information. The pandemic and isolation from family and friends may have impacted these numbers since live interaction with family and friends was shut off.

Providers that were listed in the category of Communication included Apple, AT&T and Verizon. Those listed for the category of Safety/Security/Smart Home were ADT, AT&T and Simply Safe.

Although small in numbers, many listed publications, newspapers, TV news, Consumer Reports, Social Media, advertising, retailers and the senior living community they live in as sources.



Methods for learning about technology vary based on the category.

What methods are older adults using to learn about technologies? Again, these vary depending on the category of technology.

Communication Tech & Safety, Security and Smart Home Tech

The top 3 methods for each of these categories were exactly the same in 2019 and 2021!

- 1. Online Information or News Media
- 2. Watching a Streamed Video
- 3. Observing Friends and Family

In 2019, One on One Training and Taking a Class or Workshop with people my own age, were 2 of the top 3 choices.

"I value my Samsung phone and laptop. I learn a lot from YouTube video's." Male age 70-74 Doc is still #1

Method and

#2 Source for
learning about

Health & Wellness

Tech

Health & Wellness Tech

In this category, the physician or other health care provider has always and continues to be the number one method. Older adults depend on their health care professionals to inform and educate them about new technologies in this category. Second and third this year was Online information or News Media and Watching a Streamed Video, respectively.

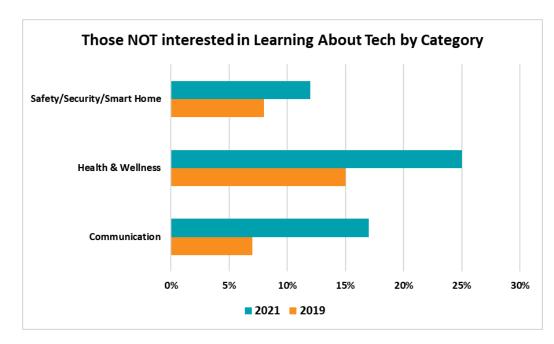
In 2019, the top two were the same; however, the third was a Class or workshop with people their own age. Again, the pandemic likely influenced the decline in this choice.



Show me the money...or not!

Willingness to allocate financial resources for and interest in learning about tech is declining.

In 2019 those who stated they are not willing to allocate ANY financial resources for technology was almost 30%. This year, that number climbed to 38%, even though our respondents were a bit younger than our group in 2019 and with many stating the value of tech in their lives through the pandemic.



Health & Wellness is the category with the highest level of overall interest, with 32% stating they are "Extremely" interested.

With the pandemic, health and wellness overall was highlighted and top of mind for most, which could explain this category producing much more interest than Communication (17%) and Safety (14%).

The Impact of Tech in the lives of older adults "technology drives me crazy but I do like skype" Female age 80-84

the benefits can truly make a difference in all lives, but what are the perceived benefits of technology in the lives of older adults?

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All of these devices are great and

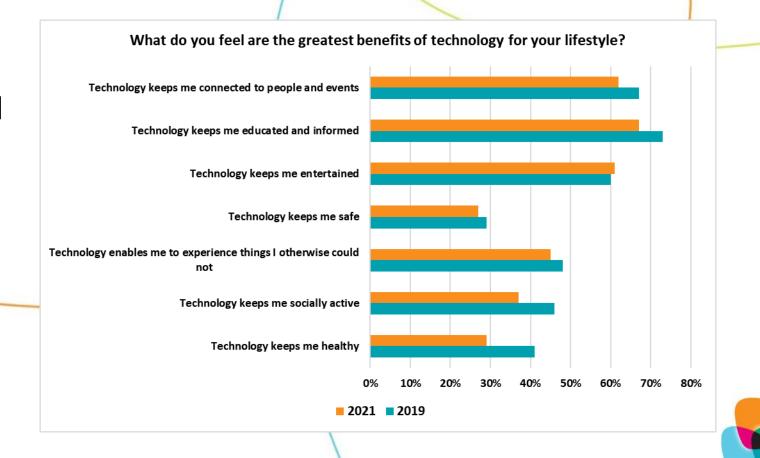
67%

Technology keeps me educated and informed

73% stated this as a benefit in 2019.

Interestingly, through a pandemic, the benefits of **keeping one healthy** (down almost 12%) and **socially active** (down 9%) dropped more significantly than any others from 2019 data. Only 29% today see tech as a benefit of keeping them healthy and 36% see tech as keeping them more socially active.

In this question we also allowed for "other". Almost all of the 125 responses, a little over 5%, answered "nothing" or "none" in freeform text.



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In their words...

"I wish that the word technology was never mentioned about the use of the Internet. To me, it is only using communicating devices like the telephone and the telegraph. I believe the word technology makes many older people stay away from even trying these devices or being receptive to their use."

Male age 85-89

"I have many different 'items' that are technology in helping me in the kitchen, providing me with entertainment. We 3 Alexa devices that we can see and chat with families that live in other states, such as California We also have Alex dots thru out our house; we can create shopping lists, get a news briefing, play music, get the weather. We also have a Smart TV; our other 3 tvs aren't smart phones but have streaming services. I also have a Ninja Foodie which is a great help in the kitchen."

Female age 70-74

"Technology is useful, it is a tool, but it is nothing that needs to be worshipped. Human should control technology and not let it control it."

Male age 70-74

"I'm glad to see more older adults adopting technology. I think it's well past time to stop assuming older adults fear and dislike technology. It's part of our everyday lives. This has been brought out more so with the pandemic." Female age 60-64

"Technology seems to be geared to millennials, leaving older adults out. When asking about it, or asking for help, too often we get laughed at or looked at like 'are you stupid'? Too complicated for some people to use and comprehend. Gets expensive for items 'they' deem essential! Not everyone has the money for technology."

Male age 75-79

Why not more adoption?

Barriers to adopting technology are complex and have many subsets within each, so there is much more work to do in this area to better understand exactly what keeps an older adult from bringing a new device home or learning to use technology. We asked, "What would you say are the greatest barriers to technology adoption in your life today?"

Cost

We hear this all the time from older adults that technology is too expensive and, moreover, devices have to be replaced or upgraded too often, making it a perpetual investment. But what is too expensive? What price are they willing to pay? How can we provide more affordable options to those on a fixed income?

These are all questions that need to be probed on a much deeper level if we are ever going to overcome this barrier.

"A lot of it is too costly and is outdated too fast for me to keep up with at my age!" Female age 75-79

Complexity

Keep it simple. Not just for older adults, but for all. Most people don't use the ridiculous amount of features on devices today; so from the language, what we call devices and how we describe them and the features, to the actual functionality of the devices themselves, simplicity is always a better choice, especially for older adults. They want devices that simply just do what they were designed to do without all the added fluff, that are intuitive to learn and use, and do not have to be upgraded, modified or replaced often.

"I wonder why I would want to spend more money on something complex; life and its increasing challenges of aging are enough to deal with." Female age 80-85

Security

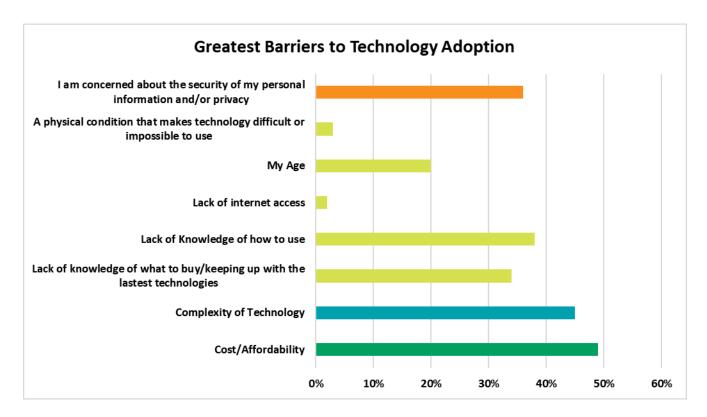
This demographic, more than others, is highly concerned about their personal information being compromised and this definitely translates to a decrease in technology adoption.

But what exactly are the concerns? Are they focused on the devices? The websites, portals and apps that allow them to access their accounts? We need to better understand the basis of their concerns and address them in a concise and transparent manner to gain the confidence of the older adult in the security of technology.

"Very complicated with changes and lack of security." Male age 70-74



Why not more adoption?



Looking into the responses by increments of age, it's not surprising that the older the respondents get, the more **age** becomes a barrier. On the other hand, **cost** becomes less of a barrier as age increases. There are many factors that can attribute to this, including potential reduction in spending on other things such as travel, homes, entertainment, and social events. Also, if there are any conditions which limit one's mobility at older ages, they may be willing to spend more on devices that help to keep them connected and socialized.



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Barriers in their words...

"Other" Freeform Text by Age*

Age 90-94

Age 85-89

Age 80-84

Age 75-79

Age 70-74

"The inconvenience of available technologies."

"Many in my age group cannot join in my online activities isolating me more that I wish."

"Not aware of new products & usage."

"Not enough hours in the day to access all desirable technologies."

"Wifi is erratic."

"Technology that does not work as advertised."

"I like a dedicated keyboard."

"ID theft."

"Most of it is a big waste of time."

"Needing to keep up with tech advances, requiring new equipment frequently."

"Systems transparency & connectivity i.e. Apple vs PC. Should be more fluid in use."

"Too much to keep up with."

"True usefulness vs toys."

"Being made to keep spending money to keep up with latest technology."

"Being tracked."

"I don't know how to use the technology I already have."

"I only want to use tech that actually improves life, or is useful in some other way that can't be done except with tech."

"Money."

"No cell coverage at home."

"Not seeing a benefit having the technology."

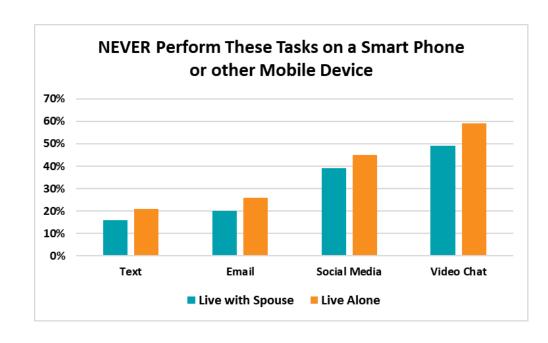
"Our area does not have access to Wi-Fi so cannot indulge."

"Technology has ruined our society."

Living Alone...The impact of ownership and usage.

"Technology makes being alone and retired bearable." Female Age 70-74

But this is not the case for all. In all categories of technology ownership, those who live with spouses own more than those who live alone. Perceived cost, complexity and lack of knowledge of how to use are barriers for all; however, our sample revealed **cost as the number one barrier** for those living alone. Almost 55% of those who live alone stated cost as the greatest barrier to technology adoption in their life today.



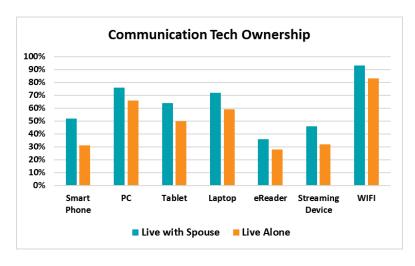
Those living alone are less willing to allocate ANY financial resources on Tech

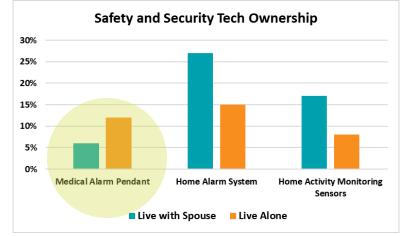
Of those living with their spouse, 34% say they are not willing to allocate ANY financial resources to tech; of those living alone, this number climbs to 44%.

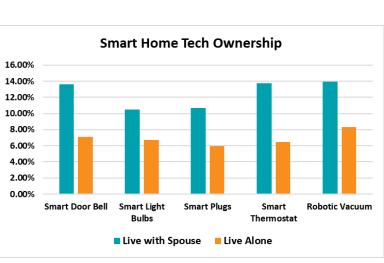


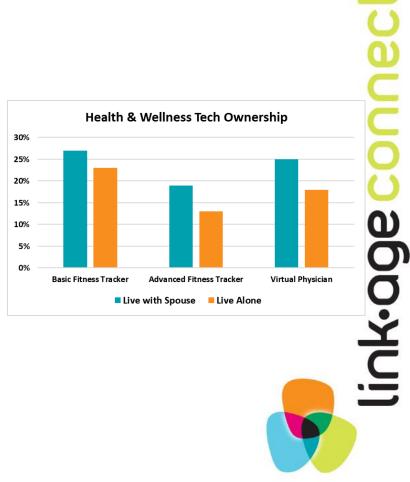
Living Alone vs Living With a Spouse

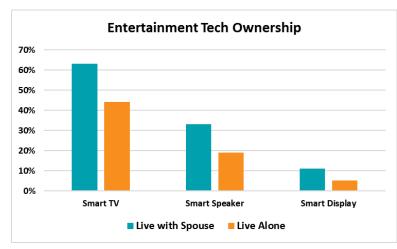
In all five categories of technology explored, those who live with their spouses have a higher percentage of ownership than those who live alone, with **ONE exception**, **Medical Alarm Pendants**.











Final Comments

Final Comments

So much has changed over the past 18 months, and the affects of the pandemic will be seen for many years to come. It will be interesting to follow some of the trends that occurred during this period, such as Telehealth Visits with physicians and other practitioners, to see if they continue to increase or if older adults revert back to the patterns of living they had before all this began. Regardless of what happens, we continue to have challenges in the technology category that need to be addressed if we are to expect adoption and improved lifestyle and outcomes from such technology.



Final Comments (con't)

Things to consider as a result of this, other and past research...

- Need Older adults ARE willing to invest in devices (this INCREASES as they age) that they believe meet a need in their life. We have to do a better job during the development stages of products with this consumer group to identify the value proposition as well as the language to clearly and simply articulate it to them in the marketing.
- Simplicity is Key. This is something most age cohorts speak about with the tech today, but much more so with older adults. If things are too complicated to learn or use, or even perceived as such, they just won't bother with it. In development we need to engage the consumer and their use of the devices to be certain they will work for them.
- Smart TVs definitely have a place in older adult homes, yet they are only being used to watch TV programs and stream television or movie content. Why are they not used to their potential, especially for those with conditions such as visual impairment, to perform many of the tasks that can be performed on smaller more portable devices? For example, attending a telehealth visit with their doctor via the television instead of their tablet or smart phone.
- Screen size does have an impact and determines what tasks older adults do on what devices. With the desire for simplicity, less devices, and budget concerns, are there opportunities to develop devices that could potentially connect to multiple sized screens anywhere or anytime, thus providing the portability of a small device and the convenience and comfort of a larger screen?



Final Comments (con't)

- The pandemic, or at least the time period of its peak, did prove to produce more time spent on devices, especially the internet, visiting with doctors via telehealth, and the use of video conferencing platforms such as Zoom. Will these trends continue, or will older adults revert to their preferred method of communication, which is traditionally live interaction? Smaller studies over the past few months are showing a decline in these activities, and we will continue to watch this to see if that decline continues.
- Affordability or the perception of it always plays a key role in ownership and adoptability of technology. We have to
 be able to provide tech, especially devices used for connectivity and socialization, that is affordable. But first, we
 need to have a much better understanding of what affordable is to them. Further, we need to be cognizant of the
 frequency that these devices would need to be updated or replaced. It simply is not practical to expect anyone on a
 fixed income to frequently update or replace "outdated" tech.
- Older adults never have and still do not want devices that highlight their declining health or advanced age who
 does? Many of the devices we have today perform most, if not all, of the monitoring and reporting of health stats that
 the traditional health monitoring devices do. Based on ownership of smart phones, and smart watches, etc., we need
 to do a better job of educating physicians and other health care professionals of the features and benefits of these
 smart devices.
- The physician still plays an important role in the lives of older adults and they still turn to their health care professionals to learn about Health & Wellness Tech. This study also showed a higher percentage of our respondents stating they are extremely interested in this category of technology. So again, we need to develop means to better educate physicians and health care professionals on the capability of tech as it applies to health and wellness. This is also an opportunity for the provider or payer source to be the educator for the older adults in health care tech.
- We have to go where they are to market to older adults. We know what their sources and methods are for learning about technology and we must use those to educate them on new tech and the features and benefits of it as it applies to their lives.



The possibilities are endless!

With so much information and so many products out there, we absolutely have endless possibilities to help older adults achieve their goals, aspirations and dreams, but ONLY if we listen to them. It is absolutely vital to include them as the consumers in every phase of product development, refinement and marketing.

At Link-age Connect, that is our passion: to hear, better understand and broadcast the voice of the older adult consumer. We hope this report has given you valuable information and insights to help you better understand the older adult cohort.







Appendix

Click <u>here</u> to read all of the freeform text and age of those who answered "yes" to their perception of technology changing since the beginning of COVID.

Click <u>here</u> to read all of the freeform text of those who answered the final question on the survey. "Please provide us with any additional comments that you have regarding technology."

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About Link-age Connect

For nearly 20 years, Link-age has helped businesses understand the aging population. Based in Mason, Ohio, Link-age includes three companies: Connect, Solutions and Ventures. Link-age Connect conducts research on the senior demographic and uses data to educate companies catering to or wanting to learn more about this market. Link-age Solutions is a member-driven group purchasing entity for senior care providers comprised of more than 800 senior living communities in 39 states. Link-age Ventures invests in companies providing products, services or technology to the 55-plus market.

The Link•age Connect Research and Consultancy Firm has conducted 65+ consumer market research for small and global companies, as well as Senior Living Organizations. Our unique structure provides access to the aging population for work which includes focus groups, product testing, surveys, technology and other product development. Our expertise and unique research methods provide clients with valuable insights to improve their company's products, messaging and marketing.

www.linkageconnect.com

For more information about our capabilities and how Link-age Connect can help your company better understand the older adult consumer please contact us:

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