



# TECHNOLOGY USE & WELL-BEING IN LATER LIFE

## PRELIMINARY RESULTS

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AUGUST 2015



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## DOES TECHNOLOGY BENEFIT WELL-BEING IN LATER LIFE?

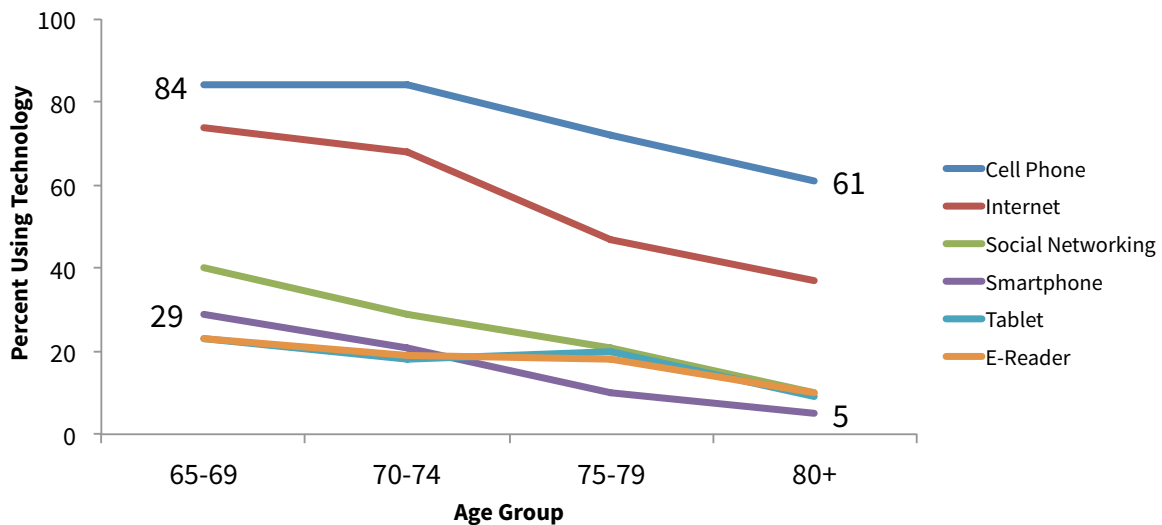
Most research on technology use among older adults examines older adults' use of different devices and applications. Less well understood is the extent to which technology influences the everyday lives of older people. In fact, the link between technology use and well-being in later life remains unclear.

Studies are scarce and have mixed findings. For example, some studies report evidence that Internet use is associated with less loneliness and depression among older people. One reason for the lack of clarity around how technology use influences well-being among older people is related to the fact that research has focused primarily on the types of devices being used, not the way the devices are being used or how they relate to the goals of older people. This is a problem because the same technology can be used for myriad reasons (e.g., using the internet for learning vs. entertainment vs. communication).



The impact of technology on well-being is strongly influenced by how it is being used. This is particularly true for older people because their use of technology is more limited. Our analysis below (using national data from the Health and Retirement Study - <http://hrsonline.isr.umich.edu/>) shows a stark decline in use of technology with age, so that our oldest citizens are substantially less likely to use several types of technological devices. Their decision to use technology is likely based on their needs and goals, which may affect which devices they use and how they use them.

### 1 in 3 Adults Aged 80+ Do Not Use Any Information Technology



*Note: Data come from the Health and Retirement Study, 2012*

Currently, very little research has explored the ways in which using technology can leverage our ability to achieve meaningful personal goals, and thus, improve well-being. Research and theory suggests that older adults prioritize social relations and emotional meaning over other goals such as learning new information and preparing for the future. Thus, we predicted that in later life, people would be more motivated to use technology for social purposes.

No studies about the use of technology and well-being have focused specifically on the population aged 80+, despite technology utilization rates being lower than any other age group, and need for assistance in meeting goals higher than any other age group. In addition, the oldest adults in our country, those age 80 and older, are most likely to be living alone, which increases risk of loneliness. Thus, technology, if utilized effectively, could provide a pathway for maintaining meaningful social relationships and overall well-being. Understanding technology use in the service of meaningful goals is critical if we seek to develop tools that can enhance well-being among people aged 80+.

## RESEARCH QUESTIONS

With these issues in mind, we sought to understand how technology use relates to well-being among the 80+ population. Specifically, we addressed four questions:

- What dimensions of well-being does technology influence?
- Does technology use have different effects on mental versus physical well-being?
- What types of technology use have the greatest impact on the well-being of older people?
- Can technology use decrease the negative impact of loneliness in very late life?

## OUR APPROACH

This study is based on a nationally representative sample of 445 US adults age 80+. We used a survey to learn about their technology use and well-being, which was fielded in May and June of 2015. The sample ranged in age from 80 to 93, with an average age of 84. Similar to the national profile of adults in this age group, two-thirds of the sample (64%) were female, and 36% male. About 3 out of 4 participants were white, and 45% had more than a high school education. We cognitively screened all participants, to ensure that all participants had normal cognitive functioning.

We assessed the role of technology based on the ways in which technologies were being used. We differentiated technology use that involves connecting with friends or family members (i.e., social technology) such as playing video games with friends, text messaging, and social media, with technology use that does not involve connecting with others (i.e., non-social technology), such as video streaming, internet-based music players, and digital books.

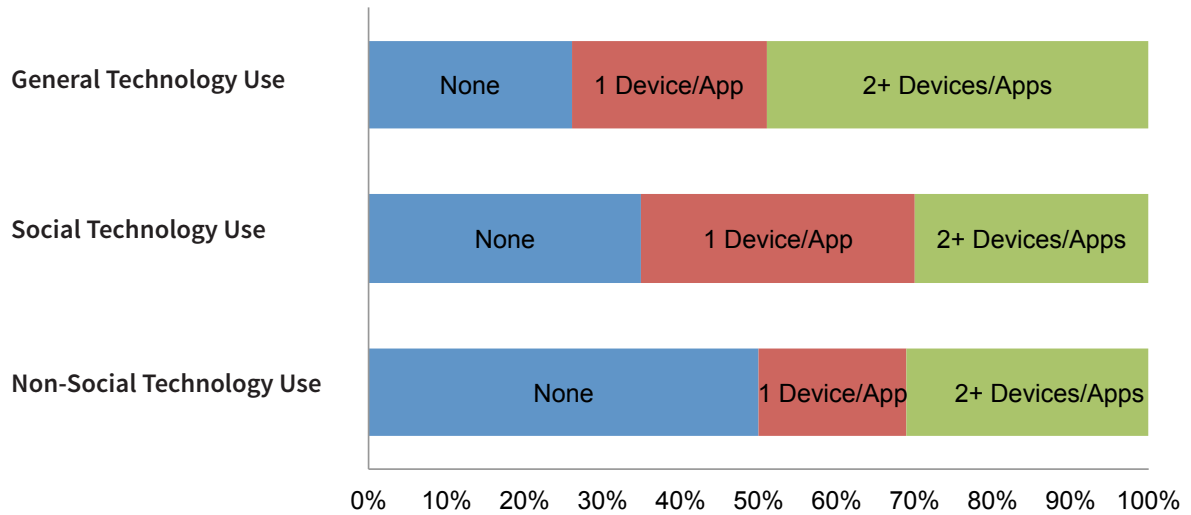
We assessed well-being using five different measures:

- Satisfaction with life
- Loneliness
- Attainment of daily goals
- Subjective health
- Limitations in activities associated with everyday living

# RESULTS

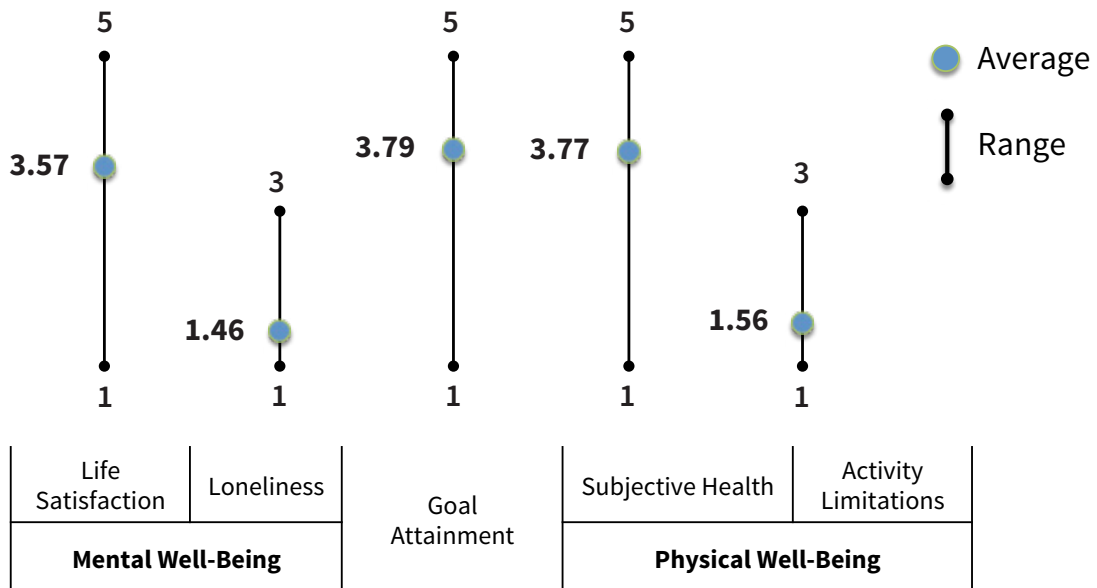
Our results show that with respect to technology use, about one-quarter do not use any form of technology, with a similar proportion using only one form of technology, and approximately half using two or more types of technology. Social technology is more commonly used than non-social technology, with about two-thirds of adults 80+ using at least one social technology device or app.

## Social Tech Use Is More Common than Non-social Tech Use among Adults 80 and Older.



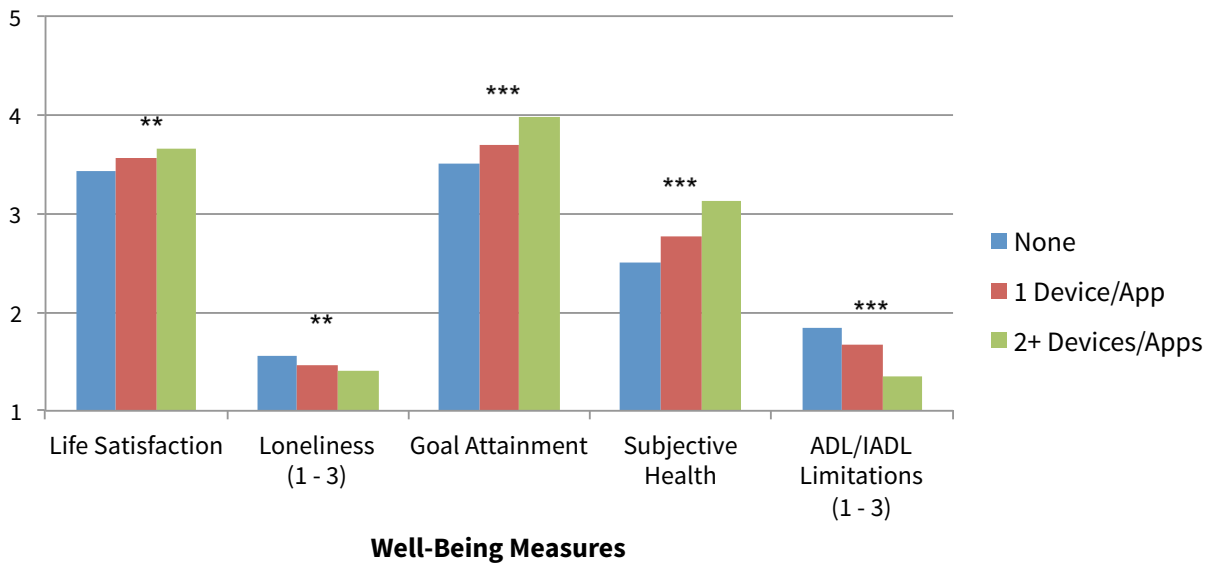
Adults 80+ also have generally high levels reported well-being, with fairly high life satisfaction, goal attainment, and subjective health and low levels of loneliness and limitations with everyday activities.

## Adults 80+ Report High Levels of Well-Being



In addressing our first research question, *What dimensions of well-being does technology influence?*, we discovered that relative to using no technology, generally technology use relates to higher overall well-being. That is, older adults who use technology, and particularly those who use more than one form of technology, experience better life satisfaction, lower levels of loneliness, greater attainment of goals, better subjective health, and fewer limitations with everyday activities. In considering our second research question, *Does technology use have different effects on mental versus physical well-being?* we observed that technology use seems to be related equally to positive mental and physical health.

## General Technology Use Predicts Higher Well-being Across All Dimensions

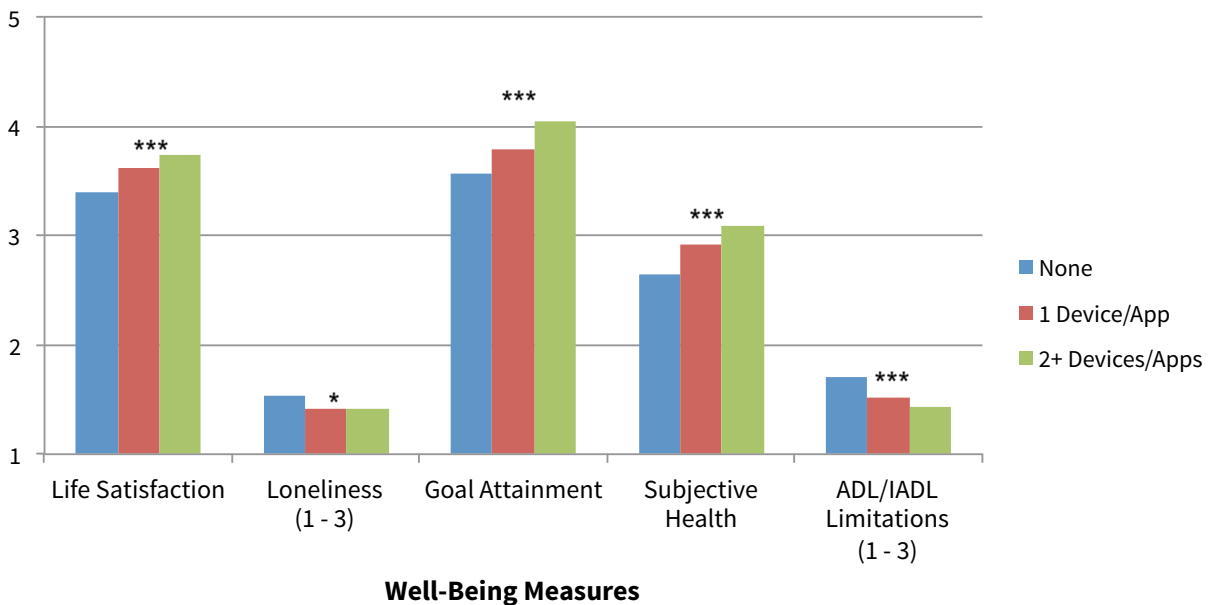


*Note* : All analyses control for effects of age, gender, ethnicity, education and urbanicity

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

In addressing our third research question, *What types of technology use has the greatest impact on the well-being of older people?*, we discovered that use of social technology is related to better outcomes across all domains of well-being, but use of non-social technology is related only to better subjective health and fewer limitations with everyday activities. Non-social technology does not relate to better life satisfaction, loneliness, or goal attainment.

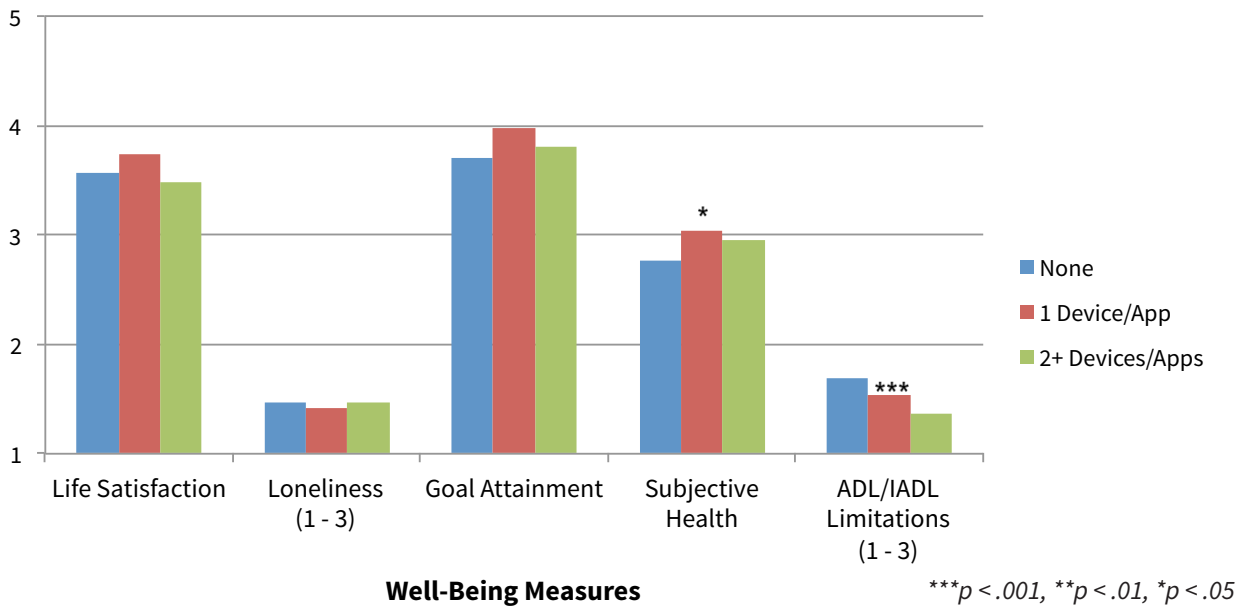
## More Social Technology Use Systematically Predicts Increases in Well-being Across All Outcomes, Including Mental and Physical Well-being and Goal Attainment



\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$



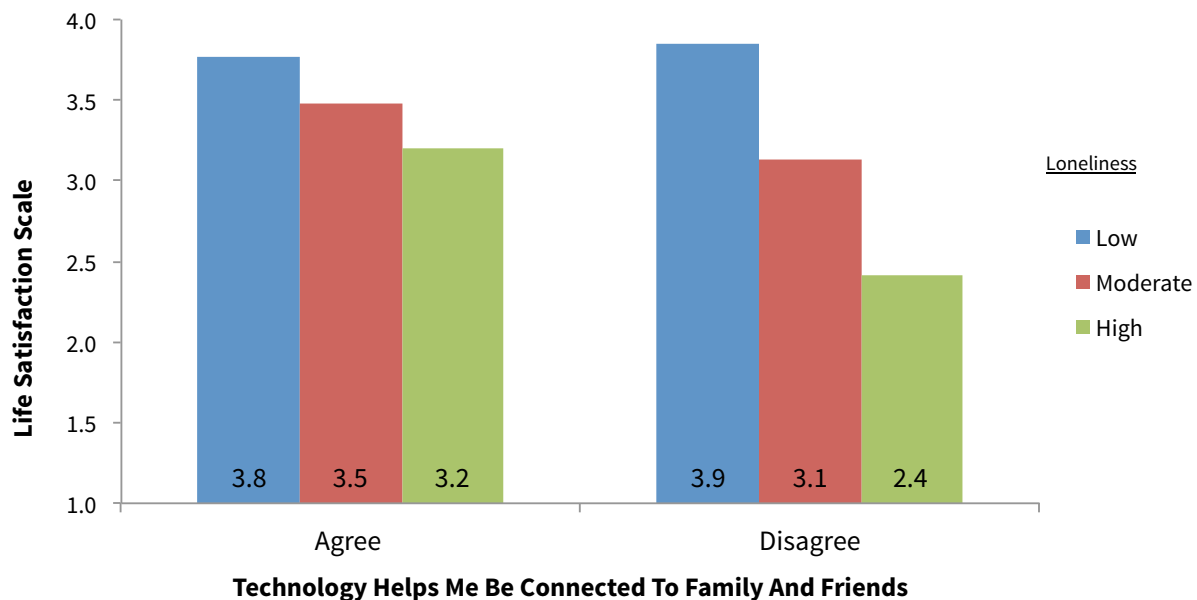
## More Non-social Technology Use Systematically Predicts Increases in Physical Well-being Outcomes but Not Mental Well-being and Goal Attainment Outcomes



Finally in addressing our fourth research question, *Can technology use decrease the negative impact of loneliness in very late life?*, we examined whether individuals who were asked the degree to which they agree with the following statement: technology helps me be connected to family and friends. We analyzed how those who agree versus disagree vary with respect to life satisfaction. We explored differences in these two groups by level of reported loneliness, controlling for all other factors, to see whether use social technology had an impact on how loneliness related to life satisfaction.

Results show that individuals who have a high level of loneliness report much lower levels of life satisfaction than those with moderate or low levels of loneliness if they do not report using technology to connect to friends and family. However, for those who do use technology to connect with family and friends, people with high levels of loneliness do not experience a decline in life satisfaction. This suggests that individuals who are lonely may be using social technology to bolster their life satisfaction.

## When Lonely Older People Use Technology to Stay Connected to Family and Friends, They Are Less Likely Experience a Decline in Life Satisfaction.



## **SUMMARY AND CONCLUSIONS**

In summary, our research suggests that when it comes to well-being, adults 80+ who use technology have better mental and physical health. However, these benefits appear to relate specifically to how technology is being used. When technology is employed for the purpose of staying connected with family and friends, older adults experience higher levels of mental and physical well-being. When technology is used for non-social purposes, it only relates to higher overall physical well-being. Finally, for lonely older adults, using technology for social purposes reduces the negative impact of loneliness on overall life satisfaction.

These findings suggest that for adults aged 80+, technology could play an important role in enhancing their overall well-being. Seeking to facilitate opportunities for older adults to use technology to connect with others may be a particularly important way to help improve quality of life. Finally, messages that emphasize the social benefits of technology may be particularly effective in promoting technology adoption among our oldest citizens who particularly value opportunities to stay connected with family and friends.



*“To the extent that people arrive at old age mentally sharp, physically fit, and financially secure, long-lived societies will thrive.”*

Laura Carstensen  
Founding Director



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