

VISUALIZING A FUTURE SELF

Leveraging age progression technology to promote long-term planning

BACKGROUND

As part of the Sightlines project, the Stanford Center on Longevity has identified key areas where Americans can take action to ensure they reach old age physically fit, mentally sharp, and financially secure.¹ Many people want to improve in these three domains, but aren't taking steps to do so.² Developing and employing effective interventions that can be applied in institutions and organizations, therefore, have the opportunity to ensure that Americans are better prepared for historically longer lives. Research finds that connecting people

to their future selves motivates them to engage in long-term financial planning, such as saving for retirement.³ In these studies, Stanford Center on Longevity research affiliates created digital avatars of college students that were made to look decades older than they actually were. Using immersive virtual reality technology, the students either interacted with their age-progressed avatar, or with a current-age version. Afterwards, the students who interacted with an age-progressed avatar reported they would allocate more

money to a hypothetical retirement savings account compared to those who interacted with a current-age avatar. These findings are intriguing, but many questions remained: Can we scale age-progression technology using a low-cost approach in community and organization settings? Does this intervention motivate people to take action for their future, such as increasing savings, beyond what they report in hypothetical surveys? Can we motivate long-term planning among those who may spend little time thinking about long life?

PROOF OF CONCEPT STUDY

To explore these questions and produce a rigorous test of this intervention, we applied the age-progression intervention within a relatively economically disadvantaged group of community college students in Baltimore. As part of a required introductory course that included a financial planning component, students took a weekly online survey. At the beginning of each survey, students saw a static image of either a current-age avatar or an age-progressed avatar (see images at right for an example). At the end of the course, participants answered several questions about financial planning and took FINRA's financial literacy quiz.⁴

Consistent with earlier studies, community college students who viewed an age-progressed avatar: indicated they would allocate more money

PROOF OF CONCEPT STUDY: DESIGN AND MAIN FINDINGS



CURRENT AGE



AGE-PROGRESSED

Average amount of \$100 allocated to a savings account:

\$36.93

\$44.58

Average financial literacy score (out of 5):

1.83

2.24

Average number of financial planning workshops selected:

2.23

2.89

to a hypothetical savings account; indicated more interest in learning about long-term financial planning through future workshops; and scored 10% higher on the financial literacy quiz – a well-established measure shown to predict actual retirement savings.

NEXT STEPS

To further explore the possible impact of the age-progression intervention, we hope to examine its influence on: 1) concrete financial outcomes, such as real-world savings rate in workplace retirement plans; 2) intergenerational workforce productivity; and 3) healthy living behaviors, such as types of participation in employer wellness programs. Future work also needs

In conjunction with previous research, the current study shows that connecting people with their age-progressed selves motivates them to prepare for their financial future. Incorporating the age-progression paradigm into community college curricula in a low-income setting demonstrates

to examine this approach in parallel and in conjunction with other well-established psychological interventions. Importantly it is also necessary to investigate the lasting effects of this intervention by following individuals and tracking their behavior over longer periods of time.

Age-progression technology has the

the feasibility, cost-effectiveness, and robustness of such an approach. As such, scaling the age-progression intervention has considerable potential to improve individuals' financial health and possibly other domains of well-being that benefit from long-term planning.

potential to connect people with their future in ways that were not possible until recently. This technology is timely – today's generations are the first for whom a long, far-off future is a likely inevitability. Through understanding effects and limits of age-progression technology, we can motivate people to take action and better prepare for that future.



CITATIONS

1. The Sightlines Project, *The Stanford Center on Longevity*, 2016.
2. Americans' Long-Life Expectations Clash With Reality," *Stanford Center on Longevity/Hart Research Associates* (February 2016). <http://hartresearch.com/americans-long-life-expectations-clash-with-reality/>
3. Hershfield, H. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L., Carstensen, L. L., & Bailenson, J. N. (2011). Increasing saving behavior through age-progressed renderings of the future self. *Journal of Marketing Research*, 48(SPL), S23-S37.
4. FINRA financial literacy quiz: <http://www.usfinancialcapability.org/quiz.php>

The mission of the Stanford Center on Longevity is to redesign long life. The Center studies the nature and development of the human life span, looking for innovative ways to use science and technology to solve the problems of people over 50 in order to improve the well-being of people of all ages.

