

From Cognitive Science to Social Impact: The Create Circles Story

Presented by Satya Moolani



Quick Poll...

Who Am I?

Class of 2023

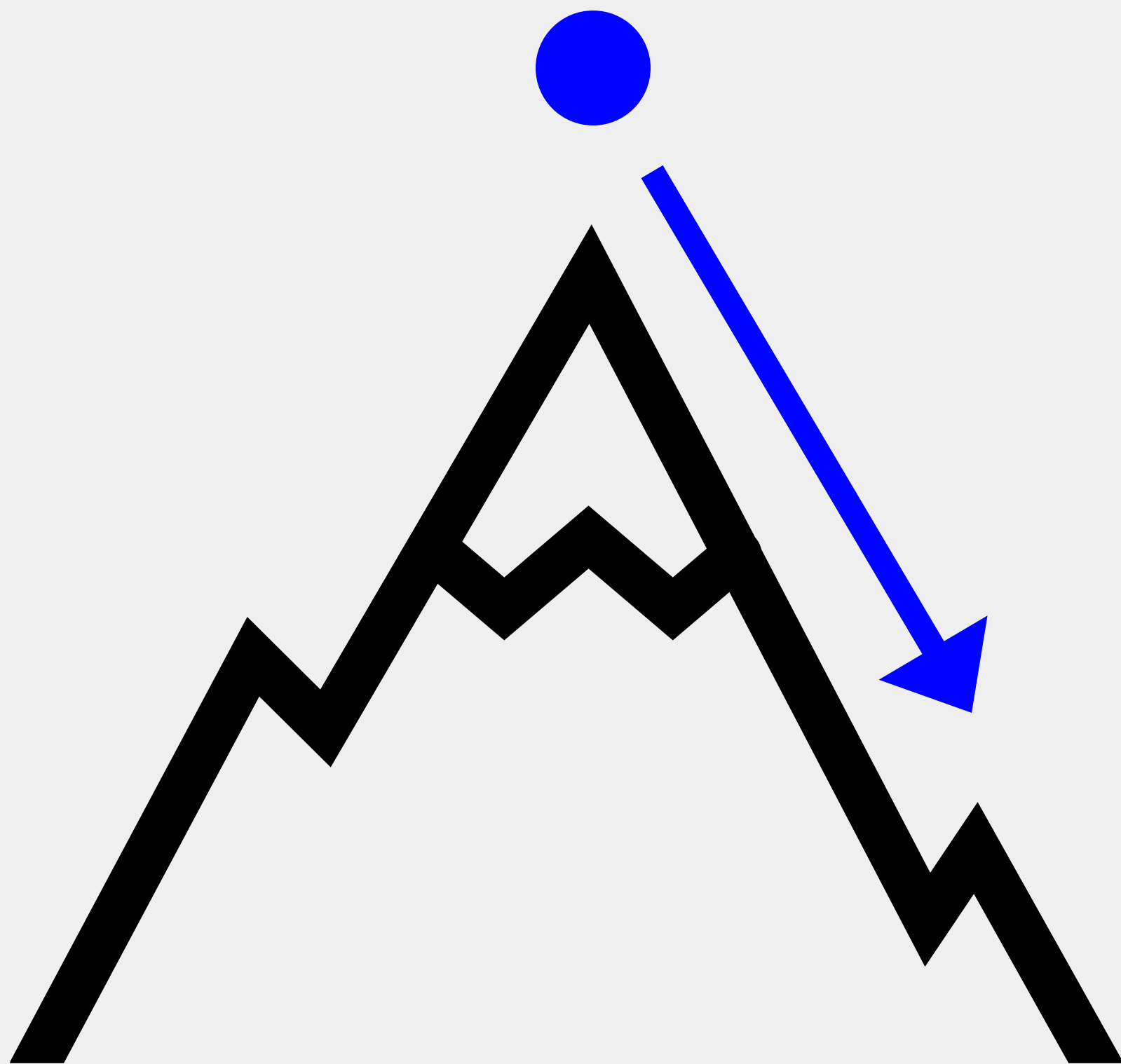
- BA in Cognitive Science
- Master of Healthcare Management

While at Case, I was a part of:

- Case Kismat
- Weatherhead Healthcare Club

Early on while at Case, I joined my brother to start **Create Circles.**





**Loneliness is the point of
rapid decline of health**



Loneliness Destroys Health



Sleep



Cognition



Activity



Loneliness Destroys Health

Psychiatry Research
Volume 294, December 7

ELSEVIER

Review article

The Effect of Loneliness on Health: A Distinct Health Phenomenon: A Comprehensive Analysis

Restricted access | Research article
First published online March 11, 2015

Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-Analytic Review

[Julianne Holt-Lunstad](#), [Timothy B. Smith](#), [...], and [David S. Holt-Lunstad](#)

[View all authors and affiliations](#)

Volume 10, Issue 2
<https://doi.org/10.1177/1745691614568352>

Perspectives on Psychological Science
[Journal indexing and metrics](#)

RESEARCH ARTICLE | 8

Social isolation, loneliness, and all-cause mortality in older men and women

[Andrew Steptoe](#) ✉, [Aparna Shankar](#), [Panayotes Panagiotakos](#), [Jane Wardle](#) [Authors Info & Affiliations](#)

Edited by Kenneth Wachter, University of California, Berkeley
February 15, 2013 (received for review November 12, 2012)

March 25, 2013 | 110 (15) 5797-5801
<https://doi.org/10.1073/pnas.1219686110>

Annals of Behavioral Medicine | SOCIETY OF BEHAVIORAL MEDICINE

Article Navigation

JOURNAL ARTICLE

Loneliness Matters: A Theoretical and Empirical Review of Consequences and Mechanisms

[Louise C. Hawkey](#), Ph.D. ✉, [John T. Cacioppo](#), Ph.D.

[Get access >](#)

Annals of Behavioral Medicine, Volume 40, Issue 2, October 2010,
Pages 218–227, <https://doi.org/10.1007/s12160-010-9210-8>
Published: 22 July 2010

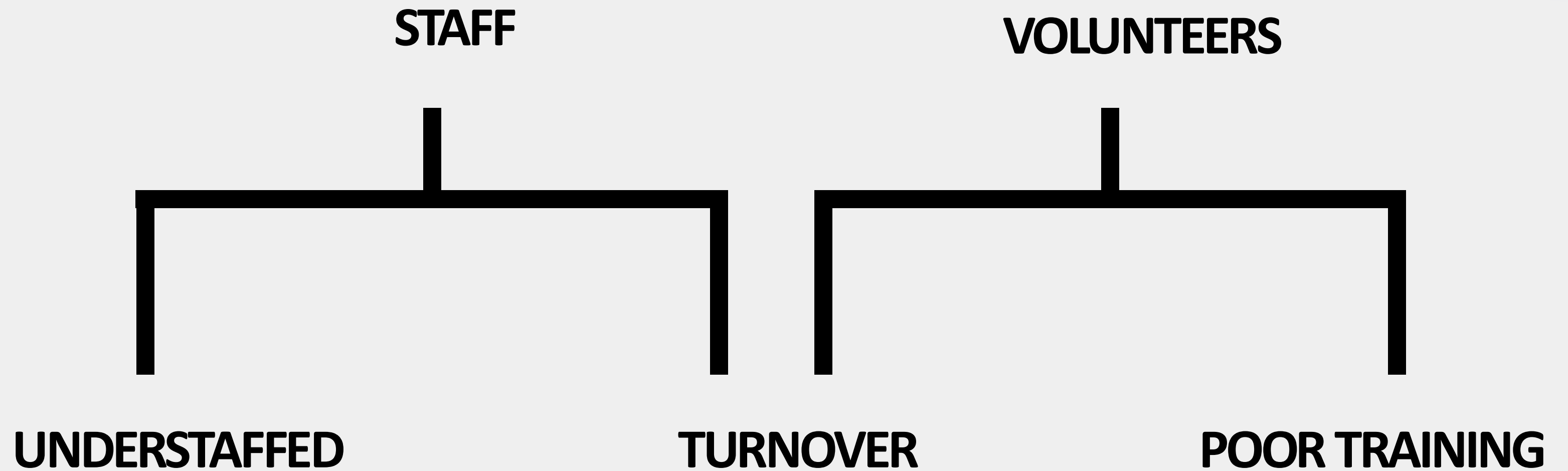


Loneliness Destroys Health

- A 2020 study in the Journals of Gerontology showed that chronic loneliness was associated with a **40% increased risk of dementia.**
- A large-scale study in Nature Human Behaviour (2022) found that **loneliness was associated with significant disruptions in sleep patterns and increased risk of insomnia.**
- A study in Health Psychology (2019) demonstrated that socially **isolated older adults showed significantly reduced levels of daily physical activity.**



Companionship is not enough





**We had to address the root
of the loneliness**

Redefining the Problem



Initial assumption:

Loneliness decreases with companionship

Key insight:

Sense of purpose **NEEDS** to be paired with companionship



Create Circles is a **501(c)(3) nonprofit** focused on addressing older adult loneliness.

We pair older adults in nursing homes with trained student volunteers to provide more than companionship; they help craft a sense of purpose.

**Our
Mission**



Program Design

Core Theoretical Framework

Social-Cognitive Theory:

- Integrating self-efficacy and purposeful social learning into program design

Neural Plasticity Principles:

- Designing activities that promote cognitive flexibility and growth across ages

Stereotype Threat Mitigation:

- Creating environments that challenge aging stereotypes and promote capability

Implementation Principles

Purposeful Companionship:

- Combining meaningful social connection with goal-directed activities

Self-Determination Theory:

- Supporting autonomy, competence, and relatedness through structured interactions

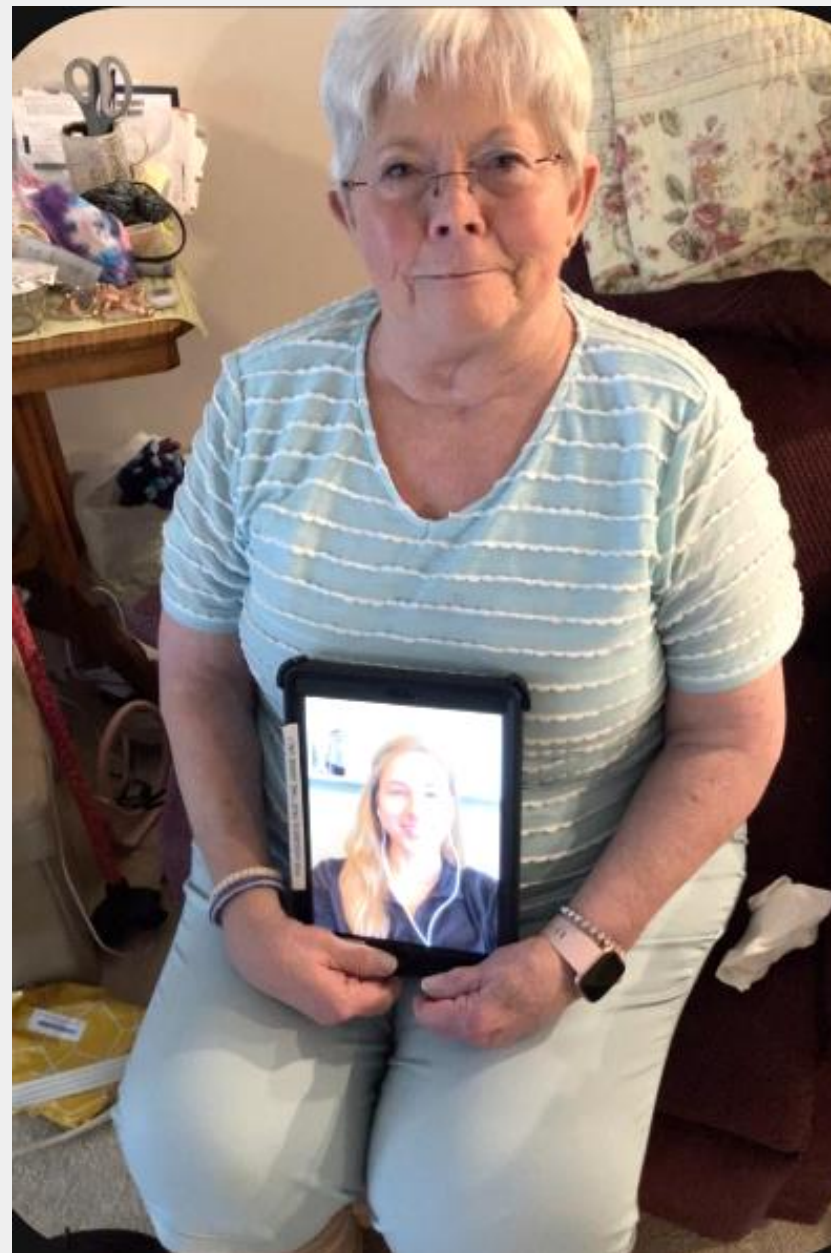
Flow State Facilitation:

- Designing activities that balance challenge and skill level for optimal engagement





Meet Kathy





Kathy's Cookbook





Our Program

So far:

- **20** States
- **80+** Nursing Homes
- **750+** Volunteer-Older Adult Pairings
- **5,000+** Visits Conducted



Current Operations

In July of 2022, Create Circles received a three-year, \$495,000 Civil Money Penalty (CMP) grant from the **Centers for Medicare and Medicaid Services** and the **Kentucky Office of Inspector General**.



What goes into an application like this...

- Project Abstract
- Statement of Need
- Objectives and Goals
- Implementation Plan
- Evaluation Plan
- Methodolgy for data collection
- Budget
- Budget Narrative
- Letters of Commitment from Nursing Homes



Methods

- Pre/Post assessment of residents
- Qualitative results through assessments of activity director perceptions

**UCLA LONELINESS
SCALE**

**CRUMBAUGH-MAHOLICK
PURPOSE IN LIFE TEST**

Applying CC to School Work

COGS 397: SAGES Capstone in Cog Science

*Does Create Circles' Volunteer Program
Decrease Loneliness and Increase Sense
of Purpose in Older Adults?*

Faculty Mentor: **Vera Tobin**,
Cognitive Science Department

MGMT 497 Action Learning Project

*Can a SMS-based System Increase
Perceived Organizational Support and
Decrease Nursing Home Turnover?"*

Faculty Mentor: **Philip Cola**,
Professor of Management

Unexpected Opportunities



COMMUNITY OUTREACH

Student's Nonprofit to Alleviate Loneliness Expands to Pregnant Women

Tailoring 'Create Circles' Program to Pregnant Women

According to Moolani, Create Circles has led to a 33% decrease in loneliness over a 12-week span based on the UCLA loneliness scale.

An interesting thing happened when Moolani was talking with OB-GYN residents about Create Circles. "They realized that the stories I tell about lonely older adults are similar to many women who are stuck in the hospital for months until it's safe to deliver their baby," he said. "It can be devastating to feel disconnected from your community for so long. So, we are

An interesting thing happened when Moolani was talking with OB-GYN residents about Create Circles. "They realized that the stories I tell about lonely older adults are similar to many women who are stuck in the hospital for months until it's safe to deliver their baby," he said. "It can be devastating to feel disconnected from your community for so long. So, we are working together to launch a program to help reduce loneliness."

"We wanted to make sure that what we had designed fit with what our patients wanted and needed," Dr. Frick said.

After lengthy discussions, they're tailoring the Create Circles approach "starting with group activities so that our patients who desire to do so can get together once a week outside of their rooms." Any University of Miami student interested in participating should email hand@createcircles.org to learn more.

"The goal," Dr. Frick said, "is for all of our patients to feel empowered in their care and in their lives, so they can understand that a key part of health is a sense of inner peace and agency."



How Cogs provided the Toolkit

- **COGS 101 (Intro to Cognitive Science)** - This foundation course gave me insights into how people process information, learn, and interact.
- **COGS 102 (Intro to Cognitive Neuroscience)** - The neuroscience background helped me:
 - Understand how social interaction impacts brain health in aging populations
- **COGS 201 (Human Cognition in Evolution and Development)** - This developmental perspective enabled me to:
 - Understand cognitive changes across the lifespan
- **COGS 202 (Cognition and Culture)** - This cultural lens helped me:
 - Understand how cultural factors influence learning and social connection
- **COGS 397 (Capstone)** - This culminating experience likely helped you:
 - Apply cognitive science principles to real-world problems
 - Develop research-based approaches to program evaluation
 - Integrate multiple perspectives into your nonprofit's mission



Key Lessons for Cognitive Science Students

A. Real-World Application:

- Theoretical frameworks inform practical solutions
- Use research methods to identify opportunities
- Adapt academic knowledge to business challenges

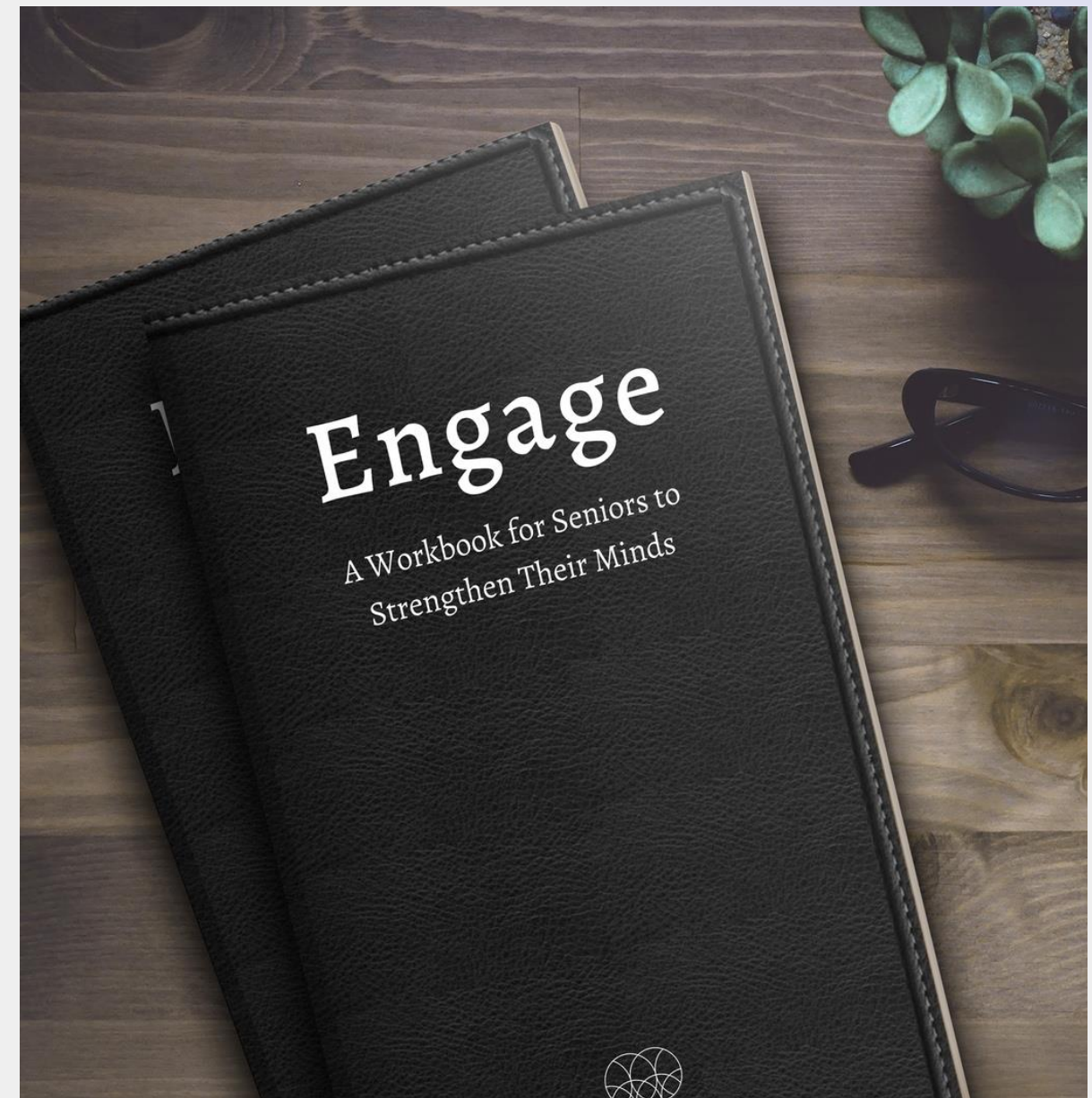
B. Career Path:

- **Nonprofit Leadership:** Cognitive science provides a unique lens for understanding social problems and designing solutions.
- **Program Development:** Understanding cognitive processes helps in creating effective training programs and measuring outcomes.
- **Social Impact:** Cognitive science skills (research methods, understanding human behavior, data analysis) translate into creating meaningful social change.



Future Directions and Opportunities

- Expanding program reach
 - Grant Applications
- New applications of core concepts
- Ongoing research and development possibilities





Final Reflection

Your Case Western education isn't just teaching you theories and concepts - it's giving you a unique toolkit to identify gaps, solve real problems, and create meaningful change.

You'll find that organizations and industries are full of assumptions waiting to be challenged through a new lens.

Thank You

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Email: samoolani@gmail.com