

## Part 1: "Elevator" Introduction

Dementia is the most dangerous disease to effect society. It is especially treacherous in that it is shrouded in the following pervasive – and totally incorrect – cultural belief: dementia is an evitable part of aging (i.e., just happens when you get old). Dementia is a disease (just like any other disease) in which elderly people experience a neurodegenerative progression that is too fast for normal aging. This disease fosters in the pervasive ignorance of dementia prevention, apathy, and lack of communication between science and society.

Currently, there are no effective treatments to help prevent and/or reduce dementia.

This is especially tragic, in that over 60 million people in the world currently live with dementia ([https://www.alz.org/facts/downloads/facts\\_figures\\_2015.pdf](https://www.alz.org/facts/downloads/facts_figures_2015.pdf)), a number that is grossly under-represented. This number is expected to triple in the next 10-15 years due to the baby boomer generation entering into the range of dementia. Arizona is considered a hotbed of dementia, with a projected 44-72% increase in Alzheimer's-related dementia in Arizona between 2015 and 2025.

The cost of dementia is staggering, over \$605 million (1% of the world's GDP), more than the combined annual revenue of Exxon Mobil and Walmart combined!

The problem of dementia cannot be completely solved at present, but can be significantly mitigated.

The SMART Program is a system of brain exercises that prevent and/or reduces the cognitive and (subsequent) functional decline associated with dementia. At SMART Brain Aging, Inc., our main product offering is a system of medicalized cognitive exercises that draw upon a foundation of empirical research which has found that doing new and novel brain exercises helps release a chemical in the brain called glutamate - an excitatory neurotransmitter. The organic release of glutamate helps lessen the extent of cortical atrophy (i.e., brain shrinkage) that occurs in all forms of dementia (particularly dementia of the Alzheimer's type).

SMART has two different product offerings that address the continuum of dementia on the front lines. Our main product offering is SMART Brain University ("Brain U") which is a SaaS platform of cognitive exercises aimed at the prevention of mild cognitive impairment (MCI)/early-stage dementia in the normal aging population. This product also incorporates a socialized platform in which users engage in these exercises in a classroom environment; this combats the lack of socialization that perpetuates the decline associated with dementia. This is a highly scalable product that is intended to help prevent dementia before it starts. With a generous grant from the Arizona Innovation Challenge, we have developed and gained paid usership on this product ([www.brainuonline.com](http://www.brainuonline.com)).

For those that already have dementia at its early stages, we have the SMART Memory Program. The SMART Memory Program is a paper-and-pencil system of cognitive exercises designed to lessen the severity of dementia when it's at its earliest stages (MCI->AD Stage 2); this version is administered via a trained caregiver and/or skilled professional (e.g., Speech-Language Pathologist/Assistant). This service is Medicare and commercial-insurance reimbursable at approximately \$110 per hour. They are currently over 500 (paid) users of SMART Memory program, spanning across 4 SMART Clinics throughout the Phoenix Valley. We are also entering into partnerships with many AL/IL (over 500) and homecare agencies (300-400) in the Valley to license and implement this program with their clients.

This continuum of SMART offerings effectively combat one the most pervasive and dangerous cultural myths that we are facing, and defeats it using a combination of education and biopsychosocial intervention. SMART Brain Aging, Inc., aims to help the tens of millions of people already affected by dementia worldwide, and – perhaps more importantly – the tens of millions who do not yet have it.

## Part 2: Market and Industry Analysis

At present, we anticipate our current market is very large, and (unfortunately) growing rapidly.

For SMART Brain University, we anticipate having over 60 million potential customers. These customers are primarily between the ages of 55 and 75.

For SMART Memory Program, we anticipate having over 5 million users (at least 750,000 potential local users). Although these can come from individuals in the community (who would call our toll-free number – 1-855-B-SMART-0 - and attend our SMART Memory Clinics), they will most likely come from individuals living in Assisted Living/Independent Living environments and clients of home care agencies. These individuals are most likely between the ages of 75 and 90. Currently, there are over 400 AL/IL environments in the Phoenix metro area with an average of 200-300 individuals per facility and over 400 homecare agencies.

Although the amount of people affected and potentially affected by dementia is already huge, we do anticipate an approximately tripling of our market in approximately 10-15 years. This is due in large part to the aging of the Baby Boomer generation, the largest generation in history. This is also due to a combined increase in life expectancy. It is no small stretch to say that dementia will reach world-wide pandemic levels in the next 20 years.

In addition to the clear rise of dementia, the brain game market is growing very fast. At present, there are over 60 million registered users of Lumosity. A large proportion of these users are over the age of 55 and, as experienced on-line game players, are perfect for our SMART Brain University product. Additionally, we expect that our target population will significantly increase in technological sophistication in the coming years.

As a company that prides itself on scientific legitimacy, we feel strongly there are no direct competitors to our market at present, although there are a growing cadre of indirect competitors. These include (but may not be limited to) Lumosity, Elevate, and Rosetta Stone, and other less reputable "brain game" customers, do exist. These competitors have little if any potential medical legitimacy and have been roundly rebuked for lack of medical legitimacy (cited most poignantly in a recent position paper by the National Institute of Aging). The most glaring of this is the FTC's lawsuit of ruling of Lumosity.

Perhaps the most direct potential future competition would be a significant medical breakthrough in the area of dementia. Unfortunately, at present, this has not been promising.

### Part 3: Go-to-Market Plan

For SMART Brain U, our specific target customers are middle to upper class individuals, perhaps well educated, who are interested in doing everything they can to prevent dementia.

We have done extensive market research to date. At present, we have conducted both formal and informal market testing.

We have conducted fairly extensive market testing with the program to date. At present, we have conducted official marketing groups through Plaza Market Group Research. In an on-line survey with almost 300 participants of SMART Brain University, 99.7% said that they would purchase a computer-administered brain game if it helped reduce the possibility that they had dementia, and over 70% said they would pay between \$9.99 and \$14.99 per month for a subscription to our product. We currently have over 500 users of our program and are obtaining week-by-week growth.

Generally, I do not think our acquisition strategy is about “winning” customers. Instead, we - first and foremost - aim to increase awareness and education of dementia prevention and intervention. After this is completed successfully and with legitimacy and transparency (proposing the need), we then aim to provide them with an outstanding product offering. We retain these customers due to a high degree of clinical success and close and customized follow up.

Fortunately, we have not had any current direct competitors in either the 1-user or 2-user of our program.

Indirect competitors may include companies such as Lumosity, Elevate, and (potentially) Rosetta Stone. Our largest competitor may currently Brain HQ, which offers a bit more substantial research in the area of cognitive intervention for early stage dementia. Rather than a competitor, we feel that the (modest) success of this product may provide increased legitimacy to this movement as well as a valuable potential entry point.

We continue to think that there may be many potential competitors in the future, including competition from more legitimate programs from major hospitals (example: Mayo Clinic’s Habit Program). We shall displace these competitors using stronger research, improved clinical delivery, and accurate and transparent marketing to a targeted customer base.

The most basic manner in which we are significantly better than our potential competitors in that our product actually does what it says it is going to do (actually works). We have conducted research that shows that it is effective and have a strong commitment to conducting more research in the future. We use this research, in synergy with customer feedback, to improve upon this product.

### Part 4: Technical Product Description and Plan

We have two products, which exist on a clinical continuum (reflecting the clinical continuum of dementia). We offer a 1 user version, entitled SMART Brain U, which (as previously described) in on a SaaS platform. This is obviously the more scale-able, larger-market play, designed for older adult individuals that would like to do everything possible to help them prevent dementia.

We also offer a 2 user version, which is a professionally-administered version of the product, entitled SMART Memory Program. This is an approximate 8-week system of cognitive intervention exercises aimed at reducing the cognitive and functional decline associated with MCI and early-stage dementia.

We have spent a great deal of time validating the efficacy of the SMART Memory Program. This has culminated in three published research studies and one currently in press. Research will always be the cornerstone on which this produce is based. Therefore, science will always proceed the business side of SMART Brain Aging, Inc.. Repeated research will be always be needed and will inform our product design and overall business.

In addition to the above, we have also develop a SMART Caregiver Training program.

We are still working to develop a cutting edge product that provides excellent clinic service. Given that we are attempting to fight dementia, this will be a difficult and challenging endeavor, but one we are determined to win. This will involve a great deal of resources, both educational, empirical, and business.

Our product has significant advantages, including, most primarily, aiding in preventing and mitigating the cognitive and functional course of dementia. A substitute solution would be the cure and/or a significant medical breakthrough in dementia. Although we have made significant breakthroughs in medical science,

We currently are patent pending on cognitive intervention for MCI and early-stage dementia. The approval of this patent will allow us to gain sole use of a digital medium for cognitive intervention of dementia, which will obviously be of high value from a business perspective.

### Part 5: Risk vs. Talent Narrative

The next few major risk milestones include potential challenges to the medical legitimacy of the product. We aim to combat this through increased and continued research.

We have a very strong advisory board, which is growing and expanding to include many outside consultants.

Our Advisory Board is:

- John W. DenBoer, Ph.D. – Founder, Interim CEO, CMO of SMART Aging, Inc.
- Chris Ferraro, CTO
- Stephen Brown, Ph.D. – Professor Emeritus of Marketing at ASU
- Martin Zwilling – Founder, Startup Professionals, Business and Marketing Consultant
- Stephen Chung – AL/IL Home Care Expert
- Varesh Chaurasia – CEO, 4C Medical Group

Legal Advisors:

- Geoff Ossias – DLA Piper (company formation)
- Stephen Lawrence – Milligan Lawless (health care)

Medicare Advisor:

- Kevin Solinsky