Boost - The World's 1ˢᵗ AI Silver Telemedicine Platform

Company: Malacors Organization

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Project Summary/Abstract

In less than 10 years, 2030 - 34 more countries will be Silver Societies. Populations with 20% of age 65 and above[1.] On the horizon, worldwide, is an acute professional gericare shortage.

The good news is tens of thousands are subverting growing older prejudices. Every day, more than 90% of Baby Boomers use mobile devices to watch videos online, listen to songs, interact and enjoy these indispensable pleasures of life. They want to leverage on technology to manage their health and daily life. And, not forgetting the health industry for seniors is an estimated 740B[3].

Boost aims to create an AI Telemedicine Platform for seniors and their caregivers. The platform will focus on integrating their Health Care, Welfare Management, and Mobile Entertainment.

This world's first AI Telemedicine Platform will in two phases -

1. Collate and identify senior needs via Big Data & Machine Learning
2. Design and develop cognitive courses & e-games to sharpen reflexes
3. Create a 24/7 robot named R-bot
4. Create a 24/7 virtual chat hall and hubs
5. Create a 24/7 health-care station with IOT interactivity / wearables / appliances
6. Create a 24/7 telemedicine service system

The AI Telemedicine Platform will cooperate with medical and academic institutions, pharma, lifestyle and support agencies to form an ecosystem.

Target Subscribers: Worldwide

- Seniors above 50 years of age
- Seniors Caregivers

With the advent of 5G, seniors can PK worldwide on the Platform's virtual hall and hubs through video, continue to socialize, learn and live a full life.
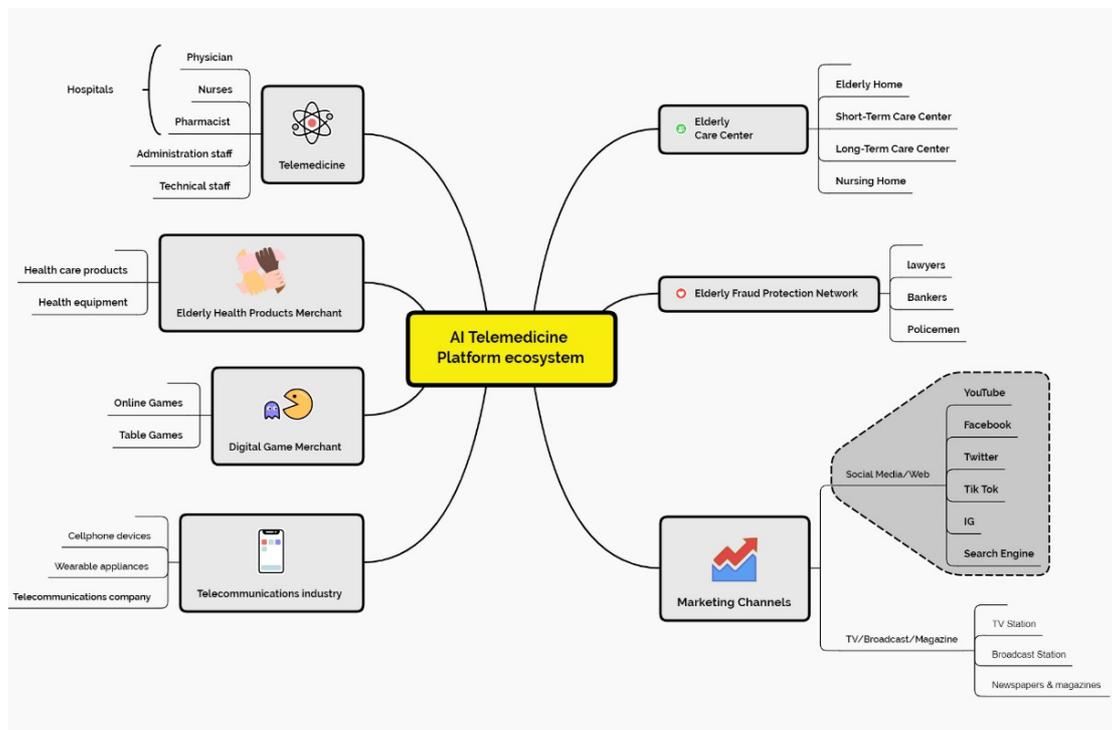
Specific Aims

The Platform have four specific aims:

Aim1. To conduct Big Data Research on Senior Health Care, Welfare Management, and Entertainment. Apply AI Machine Learning Technology to analyze the collected data.

Aim2. To design and develop cognitive courses & e-games to enhance senior lifestyle. Applying ADDIE Model and Gamification Mechanics will ensure effectiveness and engagement.

Aim3. To create an All-in-One user-friendly AI Telemedicine App that allows Voice/Text/Facial Recognition, Audio & Video Conference, R-Bot interaction, Health-Care Station, Virtual Town Hall, Chat-Rooms and 4D Data Transfer round-the-clock.

Aim4. To partner with hospitals, support agencies, health product agencies and academia to build a comprehensive ecosystem chain for seniors that will cover most if not all of their needs.

Significance

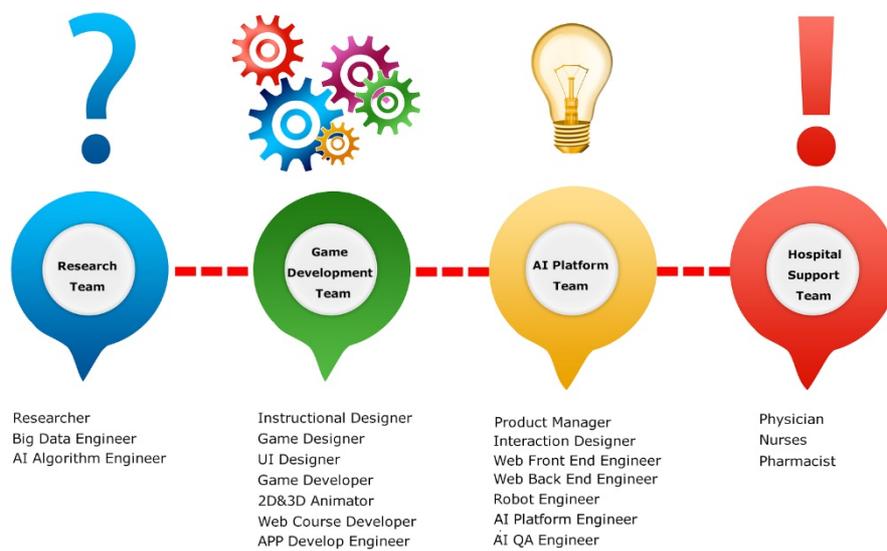Silver will be the 1st Worldwide AI Telemedicine App for seniors with:

1. 24-hour Health Care Access: professional physicians and nurses to rely on any time.

2. 24-hour Welfare Safeguard: the ecosystem offers relevant support and

audit systems to safeguard their financials.

3. 24-hour Entertainment: there will be a continuous stream of designed courses and e-games. There will also be AI R-Bot, a smart virtual companion.

Approach

Project Team

- Research Team
- Courses & eGame Development Team
- AI Platform Team
- Medical Support Team

Research Team	Game Development Team	AI Platform Team	Hospital Support Team
Researcher	Instructional Designer	Product Manager	Physician
Big Data Engineer	Game Designer	Interaction Designer	Nurses
AI Algorithm Engineer	UI Designer	Web Front End Engineer	Pharmacist
	Game Developer	Web Back End Engineer	
	2D&3D Animator	Robot Engineer	
	Web Course Developer	AI Platform Engineer	
	APP Develop Engineer	AI QA Engineer	

Phase I

Big Data Collection: Needs Assessment for Seniors

Field Study Information collated including from case studies and specially designed questionnaires where information can be verified will form the informational data sources for the proposed AI Silver Telemedicine Platform.

Survey Subject: Senior Health, Welfare Management, and Entertainment.

Health: The clinical, physiological and psychological conditions seniors need and want to know most.

Welfare Management: The financial management issues most frequently faced such as:

1. Fraud.
2. Financial entrustment and legal matters.
3. Improper financial management.
4. Referral agency.

Entertainment: mobile and apps usage such as favorite social media sites, egames, search engines, shopping, video and music sites.

Survey Method: Questionnaire Surveys & News Archives Collections.

Questionnaire surveys: to conduct questionnaires by telephone interview and email, including visits to select participating organizations for one-on-one interviews.

Participants of questionnaire sample include: medical units for seniors, social welfare institutions, long-term care centers, physicians, banks, lawyers, police office, and caregivers.

News Archives Collections: major media sources targeted - CNN, CBS, ABC, NBC, The New York Times, Los Angeles Times, USA Today, The Wall Street Journal, and the Washington Post.

Remarks: organizations willing to participate will also be entitled to pilottesting: 1) e-Games 2) "Telemedicine Service" prototype.
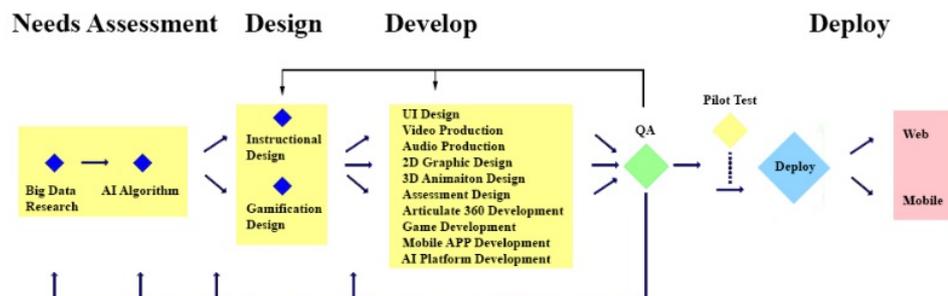
Artificial Intelligence Algorithm & Machine Learning

The research results arising from applying AI deep learning technology on the collected Big Data in an internal neural network will be deployed for Phase II AI Platform development.

Phase II

1. The AI Telemedicine Platform Development Process Flow Chart

Project Design & Development Process

2. The AI Telemedicine Platform

Platform Key Features -

• Voice/Text/Facial Login
• Senior-Doctor-Nurse Matching
• Medical Appointment Management
• Audio & Video Conference
• E-Prescription
• Mobile courses & e-Games
• Virtual R-Bot
• 4D Data Transfer (experts can visualize MRI/CT data instantly anywhere in the world)
• Virtual Town Hall (instant messaging with chatrooms)
• Health Care Station (wearable IOT health devices)

• Integrated Ecosystem
• Multiple Languages
• Payment System

3. The Telemedicine Service

The services on this platform are arranged primarily across five major hubs: Proactive Center, Nexus Station, e-Druggist, Surety League and Viva Alliance.

The Proactive Center: In terms of senior care, the three highs (high blood pressure, high blood sugar, and high cholesterol), stroke, mental illness, and dementia demand most of our attention. Among them, dementia is the most difficult to control.

By the end of 2020, artificial intelligence medical treatment using computer tomography can determine if a healthy senior will likely suffer from dementia. Prevention is better than cure is an unchanging truth in the medical world. Predicting the future can help plan for a quality life in advance.

The Proactive Center will design a series of preventive inspections for seniors. The platform can follow up on the health of seniors from the moment they log on.

The Nexus Station: aims to provide unfettered access to hundreds of doctors and nurses for audio telemedicine, video telemedicine, and home visits. These Telemedicine services can be arranged via a scheduling system. Any change in information of seniors will update automatically, with connections to an array of doctors for prompt consultation.

The hub will also allow up-to-the-minute IOT wearable devices (such as smart watches, bracelets, etc.) to update client basic physiological information daily. Doctors can detect signs of disorder and provide timely medical services. Nurses and other healthcare professionals can provide in-home visits, and seniors can have lab tests, mobile imaging such as X-rays and ultrasound, and therapies at the click of their fingertips.

The e-Druggist: an e-commerce website allowing medical prescriptions and health products from the cheapest and nearest pharmacy to be triggered and delivered.

The Surety League

According to statistics, one senior out of every 10 over 65 will be diagnosed with dementia. Due to cognitive impairment, seniors with dementia are prone to fraud, property, investment and financial disputes, mis-used as a head account, fraudulent group abduction, etc. The Surety League will offer senior protection by making available lawyers, bankers, and policers to help prevent seniors caught in fraud incidents.

The Viva Alliance

In recent years, many countries have added affordable five-star care institutions for seniors. As the cost of hiring caregivers in Asia is much lower, than in Europe and the United States, it has become a trend to send seniors to foreign institutions for care. This project will select excellent partner institutions at home and abroad to establish and provide for long-term senior care around the globe.

Commercialization

The Telemedicine Marketing Analysis

At the start of 2020, telemedicine has become a medical norm due to the pandemic. The penetration rate in the United States soared almost instantaneously.

60% of residents were willing to try telemedicine while 48% of physicians confirmed this bump by admitting to treating patients virtually within this period. 4 By 2026, the global telemedicine market is estimated to grow to 266.8B.

Comparative Analysis

• **Sole source:** this platform aims to be a premier hub for seniors in the prevention and treatment of dementia and related illnesses.

• **Ease of use:** the platform user interface is picture-based designed for easy understanding and operation.

• **R-Bot** - a customizable, personalized animated avatar - users can quickly obtain general relevant information. Patient, considerate, and fun companions which through AI can take on their owner's idiosyncrasies.

• **Courses & games:** jointly developed with geriatric doctors. In addition to entertainment, a focus on health enhancement, prevention and rehabilitation functions. Built on big data and AI algorithm analyses, these courses will spearhead geriatric care quality.

• **Professional medical team:** professionally certified doctors and nurses with global expertise.

• **Trustworthiness:** Merchants and products featured on the platform must be recommended by doctors. The combination of these industries in the platform's ecosystem may turn it into an Amazon, Salesforce, and Apple Store equivalent.

The Business Model

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMERS SEGMENTS
• Physicians • Nurses • Pharmacies • Clinics • Lawyers • Bankers • Policers • Game Design Companies • Mobile Companies • Telecom Companies • Health Product Companies	• Telemedicine services (Audio - Video conference, Remote patient monitoring, Store and Forward, Home visit, e-Pharmacy) • Mobile APP Development • Game contents (Development, Distribution, Licensing). • Platform development & Mgmt. • Technology R&D • Sales & Marketing	• 24/7 Medical services • 24/7 On demand courses/games • 24/7 Financial safeguard • 24/7 Health prevention • 24/7 Geriatric development	• On demand Services • Ease of use • Affordability • Primary Care • R-Bot Assstance	• Age 55 + • Senior Caregivers • Senior Care Centers • Nursing Homes • Daily Care Centers • Hospitals

KEY RESOURCES			CHANNELS	

• Employees
• AI Platform
• Mobile Devices
• Technology
  Infrastructure
• Mobile APP
			• Social Media
			  Sites
			• Video Sites
			• Game Sites
			• Search Engine
			  Sites
			• Mobile APPs
			• Word of mouth
			• Online
			  advertising
			• TV Stations
			• Radio Stations
			• Magazines
			• Newspapers	

COST STRUCTURE	REVENUE STREAMS
• Product Development • Research & Development • Platform Maintenance (Infrastructure – AWS) • Marketing & Sales • Employees	• Monthly Subscription • Telemedicine Service • Online Product Sales

Silver eGames

The phrase, "Computer games belong to young people" is outdated. Adult addiction to computer games has proven comparable to young people. When Pokémon was popular, seniors could be seen everywhere in parks holding several mobile phones to help their grandchildren capture treasures.

Nintendo's "Brain Age", a game that helps people with dementia train their brain, has puzzles, quizzes, and other mental training exercises. Since its inception, sold 6.7 million pieces.

In 2020 alone, the eGame market grew 12%. The total eGame market value is a US$126.6 billion. The global eGame industry will reach US$287.1 billion in 2026, one of the most promising industries in the 21st century.

eGame Design Consideration

Clinical trials indicate Bingo can improve memory and cognition when people with dementia including Alzheimer's play. [54] For this project, we will adopt many proven therapeutic games to build our designs on, such as Bingo, Qwirkle (widely used in US), and Smart brain (used in Spain).

AR/VR technology shows promise for helping stroke victims overcome motor deficiencies. The Maplewood Senior Living in Connecticut has utilized VR headsets to work with individuals who have concerns ranging from dementia to cognitive impairments. [54]

AI Platform Marketing & Promotions Strategy

1. Advertising Teaser across multiple social platforms

Tag Line: No to Slushies

Teaser Concept: On a snowy night, an unwell senior is making his way awkwardly to a hospital entrance in the near distance. The next scene shows a senior chatting with a doctor on a screen across the wall, sitting snug and warm, in the comfort of his home with a warm drink.

2. Connect and link all senior centers and resource centers online.

Upon subscription - Free 1 st month online service access via AT&T, Verizon, Comcast in US, SK Telcom in Korea, NTT DoCoMo in Japan, etc.

3. Provide promotions and online services to make friends across senior centers and hubs. Include access to the sales of geriatric products.

Target Clientele: Worldwide

• Seniors Age 55 +
• Senior caregivers
• Nursing homes workers
• Hospital workers

Revenue Stream

1. **Basic membership fee:** $45 USD per month Service: Daily update of health information and access to senior medical resources including interactive tracking of health assessment and records with R-Bot, certification courses for care providers, virtual town-hall chatting, intracommunity support for seniors, 24/7 nurse station helpline access and online doctor consultation service once a week.

2. **Premium membership fee:** $150 USD per month In addition to basic membership benefits, the add-ons are preventive consultation services and regular follow-up services. Prevention is better than cure. In the six years before the onset of dementia, it can be predicted through continuous tracking and prediction of brain computer tomography. The premium service is a full set of regular medical care services for busy managers and commissioners of large companies.

3. **Telemedicine fee:** online instant doctor consultation service, the service charge method will be based on the type and length of the consultation.

• Per Audio Consultation: $55
• Per Video Consultation: $85
• Per Home Visit: $245

4. **ECommerce Profit Sharing**

• Online Certificated Health Products
• Mobile Devices
• Wearable Appliances
• Telecommunication Companies
• Online Game Companies
• Online Advertising

In Conclusion

Technology can drive the well-being of humankind. It is our goal.

It is our goal too - to become a trusted premium senior-care network for the world.

As we stand at the advent of the global super-aged society, with only disparate services related to seniors, few and small deployed around the world, insufficient by any means to meet the deluge to come in the very near future, we can turn the tide on this Achilles heel.

Enhancing silver lifestyle and mobility is the vital start for the 21st century.

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