

## SPECTRUTH

## **Empowering Healing Through AI Innovation**

Spectruth will leverage AI to diagnose PTSD and provide tailored therapy, ensuring accessible mental health care for all affected individuals

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James Holz, the Founder, has collaborated with the Ukrainian Veteran's Affairs Office to identify a critical gap: there are currently no native language diagnostic or treatment tools for PTSD, coupled with a significant shortage of available therapists.

#### Problem

Post-traumatic stress disorder (PTSD) is a critical mental health issue affecting many individuals, particularly veterans. In Ukraine, there are currently over 1.3 million veterans, with an additional 1 million expected in the coming year due to ongoing conflict. Despite the government's commitment to supporting veterans and their families, there is a lack of effective native language diagnostic and treatment tools for PTSD. This gap is compounded by a significant shortage of qualified therapists, making it challenging for individuals to access timely and appropriate care.

Moreover, while the Ukrainian government has initiated various programs to aid veterans, the economic support remains insufficient. Many veterans face barriers to reintegration into civilian life, struggling with inadequate financial assistance and limited resources to address their mental health needs. This situation creates a sense of isolation among veterans, who often must navigate these challenges independently without comprehensive support systems in place.



#### Observation

Through collaboration with the Ukrainian Veteran's Affairs Office, we identified several critical barriers faced by veterans seeking help for PTSD. Many veterans struggle with accessing effective diagnostic and treatment tools due to the lack of resources available in their native language. This language barrier hinders effective communication and understanding, making it difficult for individuals to engage with existing support systems.

Additionally, the shortage of qualified therapists exacerbates the problem, leaving many veterans without timely access to care. Despite the Ukrainian government's commitment to supporting veterans and their families, economic support remains insufficient. Many veterans face challenges in reintegrating into civilian life, often feeling isolated and overwhelmed by their mental health struggles. The combination of these factors highlights a pressing need for innovative solutions that can provide accessible and culturally relevant care for veterans dealing with PTSD.



#### Solution

Spectruth aims to address these pressing challenges by developing an AI-driven platform specifically designed for the Ukrainian veteran community. Our solution includes:

- Native Language Diagnostics: We will create an advanced diagnostic tool that accurately assesses PTSD symptoms in the native language, ensuring effective communication and understanding for veterans.
- Personalized Treatment: For individuals diagnosed with mild to moderate PTSD, our platform will offer tailored Cognitive Behavioral Therapy (CBT) administered by an autonomous Al agent. This approach provides immediate, accessible support that can be accessed anytime and anywhere.
- Therapist Connection for Severe Cases: For veterans diagnosed with severe PTSD, our system will facilitate connections with qualified healthcare professionals. The AI agent will assist in scheduling therapy sessions, ensuring that individuals receive timely care from experienced therapists.
- Comprehensive Support: By integrating these features, Spectruth not only addresses the diagnostic and treatment gaps but also empowers veterans to take control of their mental health journey. Our platform aims to reduce feelings of isolation and provide a robust support system, aligning with Ukraine's commitment to helping veterans and their families thrive.

Through this innovative approach, we strive to create a more accessible and effective mental health care ecosystem for veterans in Ukraine, ultimately fostering healing and resilience within the community.

#### Why Native Language Diagnostics is Critical for Accurate Diagnosis

Accurate diagnosis of post-traumatic stress disorder (PTSD) is essential for effective treatment, yet language barriers pose significant challenges. Implementing native language diagnostics is critical for several reasons:

#### **Enhanced Communication**

Using a patient's native language fosters better communication between individuals and healthcare providers, capturing the nuances of PTSD symptoms. This improved understanding reduces misunderstandings that may arise from language barriers, leading to more accurate assessments.

#### **Cultural Relevance**

Cultural context influences how individuals express their mental health struggles. Native language diagnostics allow for the inclusion of culturally relevant expressions, which can enhance symptom identification and improve diagnostic accuracy.

#### **Identification of Linguistic Markers**

Certain linguistic patterns can serve as diagnostic biomarkers for PTSD. By utilizing native language diagnostics, clinicians can analyze these markers effectively, leading to more reliable diagnoses and better integration of psychiatry and linguistics.

#### **Improved Patient Engagement**

When individuals can communicate in their native language, they are more likely to engage in the diagnostic process. This engagement builds trust between patients and providers, improving adherence to treatment plans and overall outcomes.

#### **Addressing Underdiagnosis**

PTSD is often underdiagnosed due to its complexity. Native language diagnostics can reduce the risk of misdiagnosis, ensuring that diverse populations receive appropriate care.

## **Personalized Treatment Through AI Agents**

Personalized treatment for post-traumatic stress disorder (PTSD) is revolutionized by artificial intelligence (AI) at Spectruth. Our AI agents deliver tailored Cognitive Behavioral Therapy (CBT) and other interventions, ensuring that each veteran receives support specific to their needs.

#### **Data-Driven Insights**

Al agents analyze patient data, including responses and symptom severity, to create customized treatment plans. This approach ensures therapy is tailored to individual experiences rather than being one-size-fits-all.

#### **Adaptive Learning**

Using machine learning, our AI agents continuously learn from user interactions. As individuals progress, the AI adapts its recommendations based on real-time feedback, keeping treatment relevant and effective.

#### 24/7 Accessibility

All agents provide round-the-clock support, allowing veterans to access therapy whenever needed. This flexibility encourages consistent participation and fosters a sense of safety for those hesitant to seek traditional help.

#### **Engaging Therapeutic Interventions**

Al agents deliver interactive exercises—like videos and guided practices—that engage users and motivate them throughout their recovery journey.

#### Scalability and Reach

By employing AI for personalized treatment, we can reach more veterans in need, addressing the therapist shortage while providing immediate, tailored care through technology.

## **Coordinating Care for Severe PTSD with AI Agents**

Spectruth is committed to enhancing the care experience for individuals diagnosed with severe post-traumatic stress disorder (PTSD) through the innovative use of Al agents. Our platform will streamline the process of finding and coordinating therapist availability while providing patients with meaningful choices.

#### **Finding Qualified Therapists**

Al agents will utilize advanced algorithms to search and identify qualified mental health professionals who specialize in PTSD treatment. By analyzing various databases and directories, the system can quickly match patients with therapists based on their specific needs, preferences, and geographical location.

#### **Coordinating Availability**

Once potential therapists are identified, our AI agents will facilitate real-time coordination of appointment availability. By integrating with therapists' scheduling systems, the AI can propose suitable time slots, significantly reducing the back-and-forth communication typically required to secure an appointment. This streamlined process ensures that patients receive timely access to care when they need it most.

#### **Providing Choices**

Empowerment is crucial in mental health treatment. Our Al agents will present patients with multiple options for therapists, allowing them to choose based on criteria such as specialization, approach, and personal comfort. This choice fosters a sense of control over their treatment journey, which is particularly important for those dealing with severe PTSD.

#### **Continuous Support**

In addition to coordinating care, the AI agents will remain available for ongoing support. They can check in with patients, track their progress, and provide resources or coping strategies between therapy sessions. This continuous engagement helps maintain motivation and reinforces therapeutic gains.

## **Continuous Support Through AI Agents**

At Spectruth, we recognize the importance of continuous support for individuals diagnosed with severe post-traumatic stress disorder (PTSD). Our Al agents are designed to provide ongoing assistance, ensuring that patients have access to help whenever they need it.

#### 24/7 Availability

All agents offer round-the-clock support, allowing users to engage with mental health resources at any time. This constant accessibility is crucial for individuals experiencing acute distress or those who may not have immediate access to traditional therapy. By providing immediate responses to inquiries and concerns, our All agents help bridge the gap between scheduled therapy sessions.

#### **Personalized Interventions**

By analyzing user data and interactions, AI agents can deliver personalized interventions tailored to individual needs. For example, if a user exhibits signs of anxiety, the AI can recommend specific coping strategies such as mindfulness exercises or breathing techniques. This level of personalization enhances engagement and ensures that support is relevant and effective.

#### **Real-Time Monitoring**

Our Al agents continuously monitor patient behaviors and symptoms, alerting mental health professionals to significant changes that may require intervention. This proactive approach enables timely responses to potential crises, improving overall patient outcomes and reducing the risk of relapse.

#### **Empathetic Engagement**

Al agents engage users in empathetic conversations, providing a non-judgmental platform for self-expression. This supportive environment encourages individuals to share their thoughts and feelings freely, which can be particularly beneficial for those hesitant to discuss their mental health with human therapists.

## **Opening a Physical Clinic for Severe PTSD Treatment**

Spectruth is committed to addressing the urgent needs of individuals suffering from severe post-traumatic stress disorder (PTSD) by opening a physical clinic dedicated to specialized care. This clinic will serve as a vital resource for veterans and their families, providing a safe and supportive environment for healing.

#### **Comprehensive Care**

The clinic will offer a range of evidence-based therapeutic interventions tailored specifically for those affected by severe PTSD. Patients will have access to cutting-edge treatments, including innovative therapies developed through our **Decentralized Science (DeSci)** projects. These treatments will incorporate the latest advancements in mental health care, ensuring that individuals receive the most effective support available.

#### **Integration of Technology**

In addition to traditional therapeutic approaches, the clinic will leverage advanced technologies such as AI-driven diagnostics and personalized treatment plans. By utilizing these tools, we aim to enhance the accuracy of assessments and improve patient outcomes. The integration of technology with face-to-face therapy will create a holistic treatment experience that addresses both the psychological and emotional needs of patients.

#### **Community Engagement and Awareness**

To promote the clinic and its services, Spectruth will engage in community outreach initiatives aimed at raising awareness about PTSD and reducing the stigma associated with seeking mental health care. By collaborating with local organizations and veteran groups, we will ensure that those in need are informed about the resources available to them.

#### **Supportive Environment**

The physical clinic will be designed to foster a sense of safety and belonging, encouraging individuals to seek help without fear of judgment. Our trained staff will provide compassionate care, guiding patients through their recovery journeys with empathy and understanding.

By establishing this physical clinic, Spectruth aims to create a crucial support system for individuals with severe PTSD, promoting healing through innovative treatments and community engagement. Together, we can make a meaningful impact on the lives of those affected by trauma.

## Understanding Decentralized Science (DeSci) and Spectruth's Innovative Therapies

Decentralized Science (DeSci) is an emerging movement that seeks to transform the landscape of scientific research by leveraging blockchain technology. This approach emphasizes transparency, collaboration, and democratization of access to scientific knowledge. DeSci addresses the limitations of traditional scientific practices, such as centralization and funding inefficiencies, by creating a more open and community-driven ecosystem. By utilizing decentralized platforms, researchers can share data, conduct experiments, and secure funding without the constraints imposed by traditional gatekeepers like academic institutions and publishers. This paradigm shift fosters innovation and encourages diverse participation in scientific inquiry.

At Spectruth, we are excited to explore various cutting-edge therapies for treating severe PTSD through our DeSci initiatives. Our clinic will investigate the potential of stem cell therapy, which aims to regenerate damaged brain tissue and promote healing. Additionally, we will explore psilocybin therapy, known for its promising effects on mental health by facilitating profound psychological experiences that can lead to lasting improvements in mood and anxiety.

Furthermore, we will incorporate sympathetic nerve blocks (SGB shots), which have shown efficacy in reducing PTSD symptoms by interrupting pain pathways. Extracorporeal Blood Oxygenation and Ozonation (EBOO) will also be a focus, as it aims to enhance oxygen delivery in the body and improve overall health. Lastly, high oxygen therapy will be utilized to support cognitive function and emotional resilience.

By integrating these innovative therapies into our treatment offerings, Spectruth aims to provide comprehensive care for veterans suffering from severe PTSD. Our commitment to utilizing DeSci principles ensures that our research and treatment methodologies remain at the forefront of scientific advancement, ultimately enhancing the well-being of those we serve.

To effectively convey the market potential of Spectruth, we will outline our Total Addressable Market (TAM), Serviceable Available Market (SAM), and Serviceable Obtainable Market (SOM), taking into account the prevalence of PTSD among veterans.

#### **Total Addressable Market (TAM)**

The Total Addressable Market represents the overall market opportunity for PTSD treatment solutions in Ukraine. Based on current estimates, approximately 30% of military personnel and veterans may experience PTSD. With over 1.3 million veterans currently in Ukraine and an additional 1 million expected in the coming year, the TAM for PTSD treatment encompasses around 690,000 individuals who may require support.

#### **Serviceable Available Market (SAM)**

The Serviceable Available Market narrows down to the portion of the TAM that Spectruth can realistically serve based on its product offerings and target demographics. Focusing specifically on veterans diagnosed with PTSD, we estimate that about 60% of those identified within the TAM will actively seek treatment through our Al-driven platform. This gives us a SAM of approximately 414,000 individuals.

#### **Serviceable Obtainable Market (SOM)**

Spectruth is committed to integrating our Al-driven platform into the mental health support system for veterans in Ukraine. We are actively collaborating with the Ukrainian Veterans Affairs Office to include Spectruth as a recommended resource for all veterans diagnosed with PTSD. Our goal is to advocate for policy changes that establish the use of Spectruth for diagnostic testing as standard practice.

Given our strategic partnerships and strong government support, we project capturing over 90% of our Serviceable Available Market (SAM) by the end of 2025, translating to approximately 372,600 individuals.

#### **Summary**

In summary, Spectruth's market potential is substantial, with a **TAM of approximately 690,000 individuals**, **a SAM of about 414,000 individuals**, **and a targeted SOM of around 372,600** individuals by the end of 2025. Importantly, these numbers do not reflect the additional family members who may also benefit from our services. This structured approach highlights the significant demand for effective PTSD treatment solutions and underscores Spectruth's strategic positioning to meet this critical need in Ukraine's veteran community.

James Holz's journey as a founder and advocate for mental health and special needs communities is both inspiring and impactful. After graduating from Liberty University, he began his career in finance, excelling as a trader on Wall Street. However, following the tragic events of 9/11, he reassessed his path and pursued a law degree at Florida A&M University, where he distinguished himself by earning the Best Advocate award in the Moot Court Competition.

In 2007, James established his own law practice, but it was his passion for supporting individuals with special needs that truly defined his career. In 2012, he cofounded Puzzle Box Academy and Kaleidoscope Interventions, organizations dedicated to providing effective and affordable educational resources and therapies for children with developmental delays such as autism. His commitment to this cause led to the creation of the Holz Foundation, which offers scholarships and community support for families in need.

Now, as the founder of Spectruth, James brings a wealth of experience that will be instrumental in the company's success. His background in law equips him with a strong understanding of regulatory frameworks and advocacy, essential for navigating the complexities of healthcare policies. Furthermore, his extensive experience in establishing educational programs and community outreach initiatives positions him well to drive Spectruth's mission of providing innovative mental health solutions.

James's vision for Spectruth includes exploring cutting-edge therapies such as psilocybin treatments and other advanced methodologies to address severe PTSD. His established networks within the special needs community will facilitate partnerships and collaborations that enhance Spectruth's offerings. With his dedication to improving lives and his proven track record of success in advocacy and program development, James Holz is poised to lead Spectruth in making a meaningful impact on the mental health landscape for veterans and others affected by trauma.



## Leadership in Action: Meet Our Key Project Members



Qian Zhang

Board Certified Behavioral Analyst

- Expert in Applied
   Behavioral Analysis
   and Cognitive
   Behavioral Therapy
- Founder of a premier Chinese therapy clinic
- Supervised BCBA at numerous clinics
- worked with global prestigious institutions



Illya Lozinsky

Community Liaison Officer

- General Counsel
- extensive Ukrainian government connections
- Working towards the mass adoption of Spectruth's PTSD CBT therapy.



Iryna Bezborodko-Holz

Project Manager

- Has worked with Artificial Intelligent Learning
- worked on developing security protocols for numerous Ukrainian businesses
- Experienced Project Manager

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