

The FutureList

Hurone AI Innovation Memo

Innovation In Words



A note from the Founder of Hurone AI, Dr. Kingsley I. Ndoh:

There's just 1 oncologist to 3,000 cancer patients in Africa. We're trying to empower and make the fewer oncologists available superhumans. Our system ensures that quality care can be as seamless as possible and patients can have remote care. Patients can manage their side effects, be more compliant, save money travelling very long distances to cancer centres, and streamline workflows for oncologists who are very few.

Hurone AI

Health

AI Solutions for Cancer Care

hurone.ai

Seed

2021

Executive Summary

In the evolving healthcare landscape, Hurone AI stands out as a contributor to innovation and is poised to redefine global oncology. Founded in 2021 by Dr Kingsley I. Ndoh, inspired by personal loss to colorectal cancer, the company envisions a future where diversity gaps are addressed and health equity prevails in cancer care. With headquarters in Seattle and roots in Africa, Hurone AI leverages artificial intelligence (AI) to democratise precision cancer care, transcending geographical barriers.

Hurone AI operates in the global oncology healthcare subsector and faces several challenges and risks in its journey to revolutionise global oncology through AI-driven solutions. These challenges include limited oncologists adoption, data privacy concerns, cultural sensitivity and infrastructure challenges. To navigate the competitive landscape, Hurone AI remains agile, staying updated on industry trends, investing in continuous research and development, and fostering strategic partnerships to maintain its position in AI healthcare innovation.

Despite the potential challenges, Hurone AI is making significant progress. They have piloted their software in Rwanda and are currently working to expand its adoption to Africa and Latin America. They have established key partnerships with organisations in Nigeria and Kenya while working on expanding to Tanzania and Brazil. Hurone AI has received honourable mentions from the White House and Amazon's AWS VP for Data and Machine Learning.



Max Ebong
Chief Strategy Officer

Max is a seasoned technology leader with a strong focus on driving innovation and delivering tangible results for customers.

Max's background span across various industries including Healthcare, Public Sector, Retail, and Transportation.



Kingsley I. Ndoh
Founder and CEO

Kingsley is a global health leader and MedTech entrepreneur with over a decade of experience in spearheading innovative global health programs and research aimed at closing the disparities in cancer outcomes among underrepresented populations.



Lior Romanowsky
Chief Product Officer

Lior has co-founded three software startups and gaining extensive expertise in launching innovative digital products. Lior's impact extends to supporting product marketing endeavors for Fortune 500 companies.

Innovation Spotlight

Core Functionality

- **Gukiza Software:**
 - Gukiza enables remote monitoring of cancer patients, allowing them to communicate frequently with healthcare providers through auto-generated text message prompts about symptoms and side effects.
 - The software leverages generative AI models, specifically built within Amazon Web Service's Bedrock tool, to provide real-time data summaries. This aids doctors in adjusting treatment plans promptly based on patient-reported data.
 - Gukiza stores valuable data on patient-reported outcomes and interventions, reducing hospitalisations and readmissions. It streamlines patient-oncologist communications, automates care processes, and predicts the likelihood of treatment dropouts and severe side effects.
- **Clinical Trial Software:**
 - The software automates cohort discovery, patient recruitment, and trial matching for phase III clinical trials, ensuring diversity in data representation.
 - Provides a streamlined process for reporting adverse events during clinical trials, contributing to phase III and phase IV trials.

Design and User Experience

- **Language Inclusivity.** Gukiza's messaging system allows patients to interact in their local languages, ensuring inclusivity and ease of communication.
- **User-Friendly Interface.** The design focuses on simplicity and accessibility, catering to healthcare providers' and patients' diverse needs.
- **Cultural Sensitivity.** The platform is designed to be culturally sensitive, acknowledging users' diverse backgrounds in underrepresented populations.

Performance Metrics

Gukiza software has significantly reduced off-duty oncology calls by approximately 60%, indicating improved efficiency for cancer care teams. The software reports a high engagement rate, with most patients fully engaging with the platform and finding it helpful.

Integration

- Hurone AI has integrated its generative AI models with Amazon Web Service's Bedrock tool, showcasing compatibility with cutting-edge technologies.
- Also, Hurone AI can integrate its software seamlessly with existing healthcare systems, ensuring interoperability with other tools used by healthcare providers.
- Again, patients without smartphones can use USSD infrastructure to access their services.

Safety and Compliance

- Gukiza is optimised to comply strictly with data privacy laws (HIPAA Laws & Local laws), ensuring the secure handling of patient data.
- The clinical trial software aligns with FDA guidelines, emphasising the need for diversity in clinical trials.

Innovation in Business Model

Doctor-Centric Approach. Focusing on a business-to-business (B2B) model for doctors and clinicians ensures that the service is integrated into clients' workflow. This can lead to higher adoption rates among healthcare providers, as it offers seamless integration into their practice without requiring significant changes or investments in technology.

Scalability of the Innovation

Hurone AI demonstrates scalability in its innovation by adapting to diverse regional contexts, prioritising accessibility over high-end technology, and staying ahead of the curve through continuous innovation. The company tailors solutions to suit the unique challenges of regions like Africa and Latin America while monitoring and integrating emerging technologies. By focusing on practicality and relevance, Hurone AI ensures its offerings remain accessible and practical, thus maintaining scalability over time.

Market Impact & Future Outlook

Market Impact

Hurone AI is making a significant impact by addressing healthcare disparities, especially in regions like Africa, Latin America, and rural America, where there is a shortage of oncologists. Also, the company leverages artificial intelligence to provide personalised and accessible precision cancer care.

Hurone AI's flagship software, Gukiza, allows doctors and patients to communicate effectively, especially in underrepresented populations. With a growing pipeline that includes expansion to one of the largest cancer centres in Brazil, Hurone AI has the potential to scale its solutions globally, reaching more patients and oncologists.

Many clinical trials in North America are based primarily on Caucasian data. Conducting clinical trials, ready reports, or data evaluations and using Hurone AI's software to attract trials in other places would help diversify the participant pool. The emphasis on data diversity is crucial for advancing cancer drug development. Hurone AI's role in supporting phase III and IV clinical trials for pharmaceutical companies and CROs positions it as a potential key player in shaping future research.

Future Outlook

Hurone AI's work has implications for changing the dynamics of oncology care globally, potentially influencing how cancer is diagnosed, treated, and monitored. The global AI for oncology market is projected to reach over \$9 billion by 2031. Hurone AI's founder indicated they are exploring opportunities in their sector that could be implemented in Africa and other world regions.

Hurone AI's innovative approach to AI-driven precision cancer care aligns with the growing demand for advanced healthcare technologies. The recognition of Hurone AI's work and success stories can contribute to the broader adoption of AI technologies in healthcare, setting a precedent for other companies to explore similar solutions in different medical domains for underrepresented regions worldwide.

Hurone AI is seeking to close a seed round to expand its operations. This funding round and expansion in its strategy partnerships across the globe will improve its services and, in the long run, impact more people.

Societal & Environmental Impact

Hurone AI's work in transforming global oncology through the power of artificial intelligence (AI) carries profound implications for society and the environment.

- Their work aligns with the broader global effort to ensure that access to healthcare is not limited by geographical location or socioeconomic factors. Hurone AI emphasises human-centred technology and commits to algorithmic fairness.
- The incorporation of generative AI models, partnerships with diverse cancer centres, and validation through collaboration with stakeholders contribute to ensuring that AI applications in oncology are ethically sound.

- Hurone AI's initiatives in automating cohort discovery, patient recruitment, and clinical trial support contribute to addressing the global cancer data gap. The emphasis on diversity in clinical trials, especially in underrepresented populations, ensures that pharmaceutical advancements reflect diverse demographics, ultimately improving drug safety and efficacy.
- In addition, the implementation of AI-driven remote patient care, as demonstrated in Rwanda and Kenya, reduces the need for patients to travel long distances for diagnosis and monitoring. This enhances patient convenience and contributes to environmental sustainability by minimising the carbon footprint associated with frequent travel for cancer patients.

Potential Roadblocks & Risks

• Limited Oncologists Adoption

Lack of understanding or reluctance among oncologists to adopt the AI technology may hinder Hurone AI's implementation and impact.

- *Mitigation Strategy:* Hurone AI should conduct extensive training sessions and workshops to educate oncologists on AI's benefits in improving patient outcomes. Use evidence-based case studies to showcase successful implementations and highlight how AI can enhance their practice rather than replace it.

• Data Privacy Concerns

Concerns regarding the security and privacy of patient data may lead to hesitation in adopting AI solutions. Also, there are constant cyber security threats that Hurone AI can be a target.

- *Mitigation Strategy:* Hurone AI adheres to HIPAA law and ensures compliance by leveraging the security protocols of Amazon web services. In addition, Hurone AI should implement robust data security measures, including regular audits, encryption, access controls, and data anonymization.

• Cultural Sensitivity and Language Barriers

Failure to address cultural nuances and language barriers as Hurone AI expands its operation may result in ineffective AI models and reduced acceptance among diverse populations.

- *Mitigation Strategy:* Hurone AI can collaborate with local experts, linguists, and cultural consultants to customize AI models for different regions. Hurone AI should ensure that the AI platform supports multiple languages and dialects and incorporates cultural sensitivity into the software's design and implementation.

• Competitive Landscape

The emergence of new competitors with innovative solutions may threaten Hurone AI's market position and growth prospects.

- *Mitigation Strategy:* Hurone AI should continue to stay updated on industry trends and advances in AI healthcare technology. Invest in continuous research and development to enhance existing offerings and develop new features that differentiate Hurone AI from competitors. Also, leveraging strategic partnerships with key stakeholders, including healthcare providers, research institutions, and technology companies, can strengthen Hurone AI's position in the market.

Conclusion

Hurone AI stands at the forefront of a transformative journey in global oncology, driven by innovation, compassion, and a commitment to equity. Founded on Dr. Ndoh's deeply personal experiences, the company's vision transcends geographical boundaries, aiming to democratise precision cancer care through the power of artificial intelligence.

By addressing critical challenges in oncology, such as limited access to healthcare, data privacy concerns, and cultural sensitivities, Hurone AI exemplifies a holistic approach towards revolutionising the healthcare landscape.

Hurone AI's pioneering efforts extend beyond technological innovation; they represent a paradigm shift in how healthcare is delivered and perceived globally. Through strategic partnerships, rigorous research and development, and a steadfast dedication to ethical principles, Hurone AI is not just shaping the future of oncology but also fostering a more equitable and sustainable healthcare ecosystem.

The White House mentioned Hurone AI as an example of a technology that will increase access to cancer care in Africa. AWS VP for Data and Machine Learning, Swami Sivasubramanian, highlighted the company in his keynote speech at AWS re:Invent 2023. As Hurone AI continues to expand its reach by closing a seed round and garnering recognition from esteemed institutions, the impact of Hurone AI's work will resonate far beyond the confines of the healthcare industry, promising a future where access to quality cancer care knows no bounds.

Innovation In View

How Hurone AI brings innovation to life



Streamlined patient-oncologist communication platform

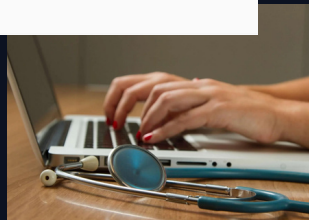
Hurone AI's platform offers advanced features, including an analytics dashboard and a personalized messaging system.

- Hurone AI's platform comprises a web-based app for authorized clinicians and a patient-facing side accessible via the USSD text message system and API for WhatsApp.
- The platform's analytics dashboard provides clinicians with intuitive insights into patient data and treatment progress, allowing for informed decision-making and optimized care plans.
- Meanwhile, the personalized messaging system enables clinicians to generate customized messages quickly tailored to the regions and the patient's language preferences.

Doctor-centered system that delivers the best experience for patients

With a scarcity of oncologists in Africa, the platform aims to empower clinicians by automating tasks and providing insights, effectively augmenting their capabilities and facilitating better care delivery to a larger patient population.

- Patients receive personalized messages about symptoms and side effects related to their treatment plans, enabling them to log their experiences and receive tailored support.
- Patients can manage their side effects, be more compliant, save money by avoiding travel to cancer centres, and streamline workflows for the few oncologists.
- Various functionalities such as generating messages, calling patients, and detecting emergencies are automated, minimizing manual intervention and streamlining workflows for clinicians.



Contributors

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Founder & CEO

The FutureList

Notes on our methodology

About The FutureList

The FutureList is dedicated to identifying and linking innovative technology companies with the investors, talent and strategic growth partners they need to rapidly scale their innovation. The FutureList leverages its network of local Innovation Scouts, a comprehensive online platform, and curated events to rapidly spot and match opportunities. The FutureList network has already profiled over 6,000 innovative companies, investors and partners globally.

We scout across a broad range of sectors in tech, aiming to identify the most innovative startups globally. This includes everything from AI to biotech, renewable energy, and more. The 10 categories we currently focus on are: Agriculture (farming, food, beverages, crops, forestry, aquaculture, livestock, irrigation, veterinary, etc.), Climate (electricity, energy, environment, renewables, recycling, circular economy, carbon credits, cleantech, etc.), Education (e-learning, school management, assessments, upskilling, tutors, languages, etc.), Enterprise (legal services, AI, cyber security, market research, recruitment, HR, customer success, consulting, SaaS tools, business analytics, etc.), Finance (banking, capital, trading, lending, personal finance, insurance, crypto, real estate, etc.), Health (medicine, biotech, medical equipment, pharmaceuticals, public health, digital health, hospitals, health records, wellness, fitness, beauty, etc.), Infrastructure (architecture, materials, computer networks, safety, law enforcement, construction, data centers, machinery, telecom, wireless internet, manufacturing, etc.), Media (marketing, influencers, animation, arts, gaming, fashion, content, platforms, music, publishing, translation, editing, etc.), Mobility (delivery, transportation, etc.), and Supply Chain (e-commerce, warehousing, logistics, retail, etc.)

About Our Innovation Scouts

Our Innovation Scouts are experienced professionals from diverse sectors with a keen eye for groundbreaking technologies and business models. They undergo rigorous training to ensure they provide maximum value to the startups they work with. They conduct their research on a volunteer basis. We have strict ethical guidelines in place. Any Scout with a potential conflict of interest is recused from the process to ensure fairness and objectivity.

About Our Innovation Memos

Innovation Memos provide a comprehensive profile of an innovator, whether its a startup, hub, investor or more established corporate, highlighting technological and business model innovations. The Memo is written in direct consultation with a verified representative from that entity, and also outlines suggestions around how to rapidly scale their innovation further through use of The FutureList's network. Once published, the Memo accessible to our network of investors, partners, and the general public for free on our platform. The Memo process is completely free for the companies featured as well. The entire process, from initial contact to publishing the Innovation Memo, typically takes about 4-6 weeks, but this can vary based on the startup's availability and responsiveness. Our goal is to promote and scale innovation globally. The FutureList platform and events are sponsored by partners.

Scaling Innovation

How **The FutureList** identifies and scales innovation globally



Ecosystem and sector mapping

Our Ecosystem team identify the most innovative early-stage and growth-stage tech companies across key sectors in tech hubs around the globe.



Innovation memos and platform profiles

Our Research team interviews founders and tech executives to publish innovation memos and create a comprehensive company profile on our public online platform.



Introductions to strategic opportunities

Our Ecosystem team shares company profiles with relevant investors and strategic growth partners across our global ecosystem, and facilitate warm introductions where requested.



Private dinners and fireside chats

Our exclusive evening events bring together founders, tech executives and other special guests for networking and interactive discussions around technology and innovation.



Global summits & learning trips

Featured companies will be invited to larger annual events held at the regional and global stage that connect the most innovative companies with opportunities for further visibility.

Sponsor

The FutureList platform and events are sponsored by partners.



Sand Technologies, a global technology services company with presence across Silicon Valley, France, the UK, Romania, and several emerging markets, is at the forefront of supporting scale-ups worldwide in overcoming the challenges of rapid growth. We're currently aiding businesses in the United States, New Zealand, Denmark, the Netherlands, the UK, the UAE, South Africa, Kenya, and numerous other locations in developing scalable technology products, constructing world-class tech teams, enhancing revenue generation, and elevating customer satisfaction.

Learn more at www.sandtech.com

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