



Digital Health Triage Assistant

○ ○ ○ ○ The Business Need ○ ○ ○ ○

In 2020, with almost no sleep over the course of a month, a group of internationally recognized data scientists banded together and heeded the call to develop an advanced COVID-19 diagnostic technology. Once completed, the engineers intent was to create a technology designed to solve the issue of health information asymmetry and expand the solution beyond COVID-19 into diagnosis of other health conditions. What they really created was one of the most innovative diagnostic engines - a true machine learning and NLP powered technology that solved a problem that 50 PhDs from MIT could not solve in a year's time. Powered by WellAI's adaptive medical information engine, The Digital Health Triage Assistant solution - uniquely self-learning - offers the most accurate and broadest health diagnostic capability.

○ ○ ○ ○ The Digital Health Triage Assistant ○ ○ ○ ○

Misdiagnosis is a major cause of malpractice suits. The risk of misdiagnosis increases with staffing shortages where, in the essence of time, practitioners may skip critical triage questions or inexperienced practitioners may not know to ask particular questions. In ER settings, rapid triage is supported with faster AI driven execution, clinics and smaller hospitals can connect with patients efficiently through smarter telehealth and messaging, and the rise of home care and remote patient monitoring requires an integrative triage solution to provide ongoing patient condition monitoring.

○ ○ ○ ○ Major Challenges in Healthcare Diagnostics ○ ○ ○ ○

1. **Ineffective 'symptom checkers'.** Dr. Google and other symptom checkers not only offer a multitude of diagnoses but also have an average 50% accuracy rate. Many tools are powered by rules and/or decision trees which limit accuracy in light of ever-changing research and updates/discoveries pertaining to health conditions.
2. **The need to resolve information asymmetry.** Individuals need accurate and reliable health information that they can discover on their own without relying on medical practitioners or inaccurate web research sources. Web research sources also lack multi-dimensionality to properly define and identify a health condition.
3. **Ensuring 24/7 access to information.** Accessing an "always on" application from a computer or smartphone enables individuals and caregivers to have access to immediate care guidance.
4. **Creates a focal point for "at home care".** An integrative diagnostic tool provides instant health condition validation in conjunction with other monitoring solutions and can provide a direct line of communication to the care team or practitioner.
5. **Reducing Anxiety:** Having an immediate accurate diagnosis can ease anxiety and enable direction to proper care, whether a directive to see a doctor or visit the ER.
6. **Reducing Costs:** For employers, health costs are the second largest expense after payroll reaching \$15K-\$20K per employee. Unnecessary ER visits create enhanced costs for individuals in addition to creating overcrowding with non-medically urgent issues. Accurate diagnostics can also avoid costly malpractice suits.



Founded in 2020, WellAI, an AI health-tech company, is the developer of scientifically and technologically advanced medical applications. WellAI's engineers, fresh off the development of a COVID-19 research tool (presented at the IFCC annual conference) leveraged their expertise into developing an advanced clinical diagnostic tool (triage solution) for physicians, caregivers, and employees/individuals. The company is the developer of the Digital Health Triage Assistant, WellAI for Medical Providers, and the Adaptive AI Diagnostic Engine, plus provides custom solutions. Currently, the company is focused on providing solutions for healthcare, but envisions expanding the diagnostic engine to other business segments.

Case Studies: Promoting Better Outcomes

- 2:30 a.m. The co-founders' young daughter wakes up feeling odd. An unusual lump is prominent on her neck that had not been there before. She is generally in good health, with the exception of the lump and odd feeling. WellAI uniquely asked if she had a dentist visit - not a common question - it diagnosed a tooth infection that spread. They went to the doctor the next day, avoiding an expensive and unnecessary ER visit.
- A 49-year female WellAI user (since February 2021) shared her beautiful story of using the WellAI app. In otherwise good health, she started feeling unwell and used WellAI which diagnosed her with anemia. After visiting the doctor, it was discovered that the anemia was a symptom of cancer which was caught early. She is in great health today.
- A WellAI user reported that for a long time he could not get the right diagnosis for his rare back condition, spondylolisthesis. It took going to different doctors for several months for finally get to the bottom of his health problem. WellAI gave the right diagnosis in 50 seconds. Here is a quote from his testimony: "It did an excellent job of diagnosing a non trivial back surgery I had many years ago--spondylolisthesis. I didn't think it would get it. Very impressed on that one."
- WellAI's Marketing Manager was experiencing a tightening in the throat and difficulty swallowing with indigestion. The Triage solution, in less than 1 minute, came up with the diagnosis of acid reflux and Barrett's esophagus. The doctor referred her to a GI specialist who, after endoscopy, identified acid reflux (GERD) and found lesions that could lead to Barrett's (which ran in her family), plus dilated her esophagus as a result of reflux scarring. WellAI was spot on and validated a potentially serious condition.

The WellAI Engine

"This is the most unique thing I have seen this year" - CMIO major healthcare system.

The triage engine offers 83% accuracy in diagnosing more than 500 health conditions ranging from common ailments to rare diseases. It has assimilated more than 30 million case studies, publications and research articles and adds on new literature upwards of 100 - 200K daily. It is the key differentiator driving solutions - an adaptive true machine learning technology combining eight (8) neural networks and natural language processing enabling continual readjusting/optimization of new information, increasing speed and accuracy in diagnostic/triage capability.

WellAI's Digital Health Triage Assistant and AI Engine reduces risk, cost, and drive faster precise diagnostics

Referred to as a "doctor in your pocket" or an on-call speech enabled diagnostic solution, the mobile Digital Health Triage Assistant application offers the ability to have:

1. **On Demand Triage Capability:** More than 500 health conditions are diagnosed with 83%+ accuracy from over 5000 symptoms (and growing) including common and pediatric conditions, rare disease and current conditions like COVID-19.
2. **Speed of Diagnostics:** As a result of the engine, diagnostic conditions are realized in less than 10 -15 questions in under 1 to 2 minutes. It only provides the top two most probabilistic conditions.
3. **Instant Telehealth scheduling and connectivity:** With a button push an individual is connected to a telehealth service or one is initiated - the diagnostic report kicks off a more intelligently engaged session.
4. **Triage and Instant Reporting Bolsters Services:** Connect WellAI's Triage Assistant to other services like Appointment Scheduling or Communication for faster and more precise patient engagement. Connect it to a physician referral network platform to drive more precise patient/provider matching. Integrate the Triage Assistant to an EMR to capture real-time patient diagnostics and practitioner sessions.
5. **Automated Medical Transcription:** Automated compiling of patient notes where post-diagnosis treatment options after triage are suggested with the doctor's concluding notes input. The entire visit info is compiled into a PDF and attached or written to the EHR system.

All of this functionality is packaged in one point/click intuitive browser or smartphone application. It is device agnostic and can integrate with many EMR systems - providing read-write appending to the system of a diagnostic report.



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