

Hello everyone my name is Nik, I am the Founder and CEO of Vastmindz, which is a healthcare technology company based here in the United Kingdom.

How was Vastmindz created? That's the 1st question everyone wants to know.

Following the career in investment banking, where I spent the majority of my time working with algorithmic trading teams, so through that process I developed a deep understanding of how algorithms work and how they are applied to real-world applications – especially applications with many dollars at stake! I've always been fascinated with applying smart algorithms to see how we could solve real-world applications in the healthcare field, hence the birth of Vastmindz. At Vastmindz we aim to enhance the virtual delivery in care to allow anyone, regardless of where they live, to access world-class healthcare.

Why was Vastmindz created?

Well, quite simply, a significant proportion of healthcare expenditure, global healthcare expenditure, is attributed to treating individuals with chronic and mental conditions.

This is a growing problem, it is a silent epidemic that is especially problematic in developing countries where accessibility to healthcare is scarce. Now telemedicine, which of course has seen large growth throughout the pandemic, is partially addressing the accessibility issue by providing a convenient way for patients to connect with doctors, physicians and other healthcare professionals, however there is currently no way of efficiently remotely monitoring patients without costly physical devices.

Now these physical devices could be regulating physical medical devices such as a pulse oximeter, blood pressure cuff, even some wearable devices such as the Apple watch can set a consumer back a couple of hundred US dollars. Really the goal here is to try and allow anyone to remotely access their physiology with little cost barrier to entry and extreme accessibility. So how do we do that? Vastmindz actually develops innovative software to make healthcare more accessible and affordable to everyone, by using artificial intelligence or AI as it is more widely known as. What we do is just by looking at someone's face, we can understand their health better. The way it works is that we use non-invasive facial screening where the light subtly illuminates blood vessels underneath the skin, and actually your skin slightly changes color every time blood pulsates throughout your body. So yes, your skin does change color and no a human can not see this, but a computer can see this. A computer can see the subtle color variations in your facial skin and so exploiting this phenomenon we are able to non-invasively measure someone's pulse rates, oxygenation levels, respiration rates, stress levels and other key vital signs in seconds. Our technology can be remotely installed on smartphones, laptops and anything really with an embedded camera, so this allows anyone who possesses such a device to conduct regular physiological assessments without the need for a physical device.

What is Vastmindz being used for and where are we being used?

Our technology can positively impact several industries including life and health insurance, travel and hospitality, telemedicine, mining, energy, and many more. In the travel industry for example, Vastmindz can help consumers to feel as safe as possible when traveling amid the COVID-19 pandemic. The tool simply acts as extra reassurance by using AI to make quick & effective health scans more accessible to the consumer. The technology can inform anyone

about their own health risk and also helps airlines manage their business risk. In a number of ways you could effectively measure the vital signs or physiology of anyone at check in points, we can conduct regular passenger health checks remotely via smartphones before arriving at the airport, and scan passengers vital signs before boarding too. And other applications within the aviation industry, just because it is such a fascinating industry for us, is looking at enhancing risk based screening tools for security purposes so remotely monitoring the dress of individuals entering international borders.

What is the importance of this type of technology?

It would help to answer this question with a more quantifiable metric and if you look at the US' annual healthcare expenditure, which is about \$3.5 trillion, 90% is for people with chronic and mental conditions. Vastmindz can quickly, effectively and accurately monitor the health and wellness of these individuals who may suffer from chronic conditions by simply looking at their face to reveal their vital physiology. If you consider the added pressure of COVID-19, our technology can support teams experiencing significant resourcing issues as well as help to monitor and manage key health indicators of staff - particularly for those in high-risk environments such as mining and energy for example.

Vastmindz as a company works hard to communicate the importance of accessible medical screening to everyone, accessible is really the key word here, to everyone and the potential to maximise health benefits or health outcomes as a result.

It's clear to see that the market size for this innovative solution is vast, and since we can pretty much be used on any device with an embedded camera, I mean if you just take the most regular consumer technology device that everyone uses, a smartphone, there are approximately 3.5 billion smartphone users globally and now you can approximate that about 350 million of those will be elderly users aged 65 or over that are considerably more prone to health risks. Therefore, from that statistic we can assume that 175 million users are likely to suffer from chronic illness, and our goal is to ensure that the chronically ill, anyone with a health complication, can easily access their physiology no matter wherever they are in the world.