

Smart, Wearable Medical Alert Service

Healthcare

Qmedic
877-241-2244
www.qmedichealth.com



Sombit Mishra
CEO

BIO:

Sombit brings over 8 years of experience in Web/Mobile strategy, product management, marketing, and business development to QMedic. Previously, he conceived, designed, and launched an obesity management and telemedicine application on Android in partnership with one of the world's leading children's hospitals. He has been invited to speak at numerous conferences on mobile health and healthy aging, including AARP, Health 2.0, Aging 2.0, the Cleveland Clinic Summit, and Athenahealth's More Disruption Please. In 2013, Sombit was selected as a TEDMED Innovation Scholar and 1 of 14 Emerging Innovators by American Express and the Ashoka Foundation. While in graduate school at MIT, Sombit was awarded the Patrick J. McGovern Prize for outstanding contributions to the student community, which included raising over \$1M in sponsorships for MIT companies across health, software, and clean

technology. He continues to serve as a business mentor to hundreds of executives through the MIT Trust Center for Entrepreneurship and Sloan Fellows programs. Sombit completed his MBA from the MIT Sloan School of Management, an MSc from the London School of Economics, and a BA from Northwestern University.

About Qmedic:

QMedic's team is comprised of experts in wearable computing and health IT from MIT, Stanford, and industry. QMedic has become a leader in the mobile health market, forging partnerships with the National Institutes of Health, National Cancer Institute, Northwestern University Hospital, and the Rehabilitation Institute of Chicago. In 2013, the company received Cleveland Clinic's Future of Medicine Award and was named a top disruptor in health and medicine by AARP, TEDMED, and Amazon Web Services.

**Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine**

CEOCFO: Mr. Mishra, your site indicates QMedic is the world's smartest medical alert system. How so?

Mr. Mishra: QMedic is a smart wearable medical alert service. The reason that it is intelligent is that we are passively monitoring user activity level, orientation and location within the home. Some of the things that we can interpret, for example, are if the user is not wearing the device. Many caregivers really care to know whether their loved one is wearing or not wearing the device. We can also identify things like a late wake up time; this is the first wearable alert service where you can detect a late

wake up time. We can also identify bouts of inactivity and share text alerts in real time with remote caregivers.

If you want to evaluate decline over time, gradual changes are typically not observable through human observation. However, with a system like ours you can look at decline over many months and see that someone's mobility has declined. These are the ways in which we see it as a smart system.

CEOCFO: Is this atypical of alert systems? Are any other companies able to provide an offering as comprehensive?

Mr. Mishra: Most of the systems that are out there that are touting their monitoring capabilities are putting sensors in the environment. The reality is that this approach is both very expensive and cumbersome to maintain, and more importantly, it is not providing you with continuous objective data on the user's behavior. It is also not going to be able to detect things related to the orientation of the user, which we are able to capture. The orientation gives a lot of resolution as to what the user is actually doing at a particular time. Competing environmental sensors are also very expensive. In order to adequately fit an environment with motion sensors, you need many sensors. Some of our competitors charge upwards of forty thousand dollars for their systems, which is similar in cost to going to an assisted living facility. QMedic costs between \$400-500/year total for our service, if you count the activation fee. Therefore, it is just much more cost effective and seamless, and we are providing more objective measures of behavior.

CEOCFO: What have you figured out technologically that others have not?

Mr. Mishra: One is making it very simple for our users to wear this and not have to manage it. Our device lasts over one year without battery recharge. We patented the process through which that happens. That is a critical element for wearability and compliance. It also means that there is not downtime, and we are able to sample data continuously. From a compliance perspective, if you think about the other solutions that are out there that are wearable; other things from a FitBit to a Jawbone type of device, those things typically have to be recharged regularly and they cannot really be used in an emergency setting. One of the reasons that we are applicable for an emergency setting is that we have a range that is over one thousand feet, so it is very kind of consistent with what works in the panic button market. Devices like Lifeline and Life Alert all have a high range. They can penetrate walls with their signal, so when you press the button you can get access to emergency help. We work the same way. We have a panic button. We have an emergency call center if the user wants to press the button. And we also have a range that is consistent with what has worked with those products.

If you think about how those products did for thirty years, they have done very, very well. People are not just buying the panic buttons, they are also buying the subscription service and they are paying monthly for it. We do not believe that that part of the business model necessarily has to be reinvented. What we think has to be reinvented are the methods by which we proactively measure functional decline and improve remote care delivery. That is what we are working towards and we have already cracked a big nut in the panic button market. We identified what worked well with the traditional solutions, but also what was missing, which I think that most of the other competitors have not really nailed down.

CEOCFO: Regarding the passive information that you are collecting, do you routinely supply it to the user or whoever is paying for it? How do you decide when you need to make sure someone knows what is happening as opposed to just, "this might be nice data to have?"

Mr. Mishra: Before we built any products when we were just starting out, the first thing that we decided to do was to go out and talk to as many potential customers and users as we could. To that end, we talked to hundreds of users and customers about what their needs were, what was missing in the market, how they perceived panic buttons in general and what types of data would be useful. Today everyone talks about big data. I think that is more of a buzz phrase. If you want to think about the utility of it, it is how do you make this

"At QMedic, we are saying, 'How can we align what we are doing with what caregivers want, what users want, what hospitals want and what the entire care continuum is ultimately looking for,' which is to keep people aging in place."

- Sombit Mishra

actionable for the user of the caregiver. That is what we structured our early interviews around. All of our usability testing was around how to make alerts that are valuable for you. What we narrowed it down to were things that for a family caregiver are particularly useful.

How we share that information was also a question. As far as the alerts go, based upon our consensus from users and caregivers, we chose to share a few things: non-wear events, late wake-up times, and unusual bouts of inactivity. Once per week we will also send another summary of how active or inactive the user has been.

Then there are questions about who receives it. Right now, we focus on providing text alerts to caregivers. We did not want to go with something more complicated like a mobile app because we did not feel like it would be used based on our interviews. Text

alerts are more accessible because the user does not necessarily have to have a smartphone. They can have a regular feature phone and they can get access the alerts. It is a very push-driven notification. When something potentially wrong has happened we will send that type of alert to them. As far as the user goes, we have not to this point been sharing this type of data with them. We can share it with them, but we base that on a case-by-case basis. If they need it or they want it, we will share this type of information. However, we also have a twenty four/seven call center service that the user can contact by pressing the button. The call center will respond to an emergency. It will also be very happy to just talk to the person. Oftentimes, when these people are living alone, one of the things that we have found is that they are often just looking for someone to talk to. We are looking for a way to try and integrate that type of interactive service into the platform, where they can connect with other people potentially. That would be something we would consider for Version 3.0.

CEOCFO: How long has your system been available?

Mr. Mishra: We are quite new in the market. We released it in October in Massachusetts. We have been rolling it out gradually to make sure that we have quality assurance on the product. We are addressing the needs of the early customers. Then we plan to roll it out in early 2014 nationwide.

CEOCFO: How will you be doing that? How are you going to reach potential customers?

Mr. Mishra: The way we are doing it now, we have been quite successful with it. In Massachusetts, we have been going to discharge planners and skilled nursing facilities. We are looking for advocates who have a patient population who is in need. You have to target patients where there is a point of decision between the caregiver and the patient, between whether they can live independently at home or they need to go to an assisted living facility or a nursing home. Often, these people are

returning from the hospital after being admitted for a fall. Today, we are targeting people who are at risk. Maybe they have had a fall in the past or they have had other incidences that suggest that they need this product and the caregiver then has more leverage in that relationship to convince them to use and wear a service like this. Discharge planners at the hospital and skilled nursing are key influencers referring our services to patients and caregivers. They are the ones who are suggesting which wheelchair you should buy, which other devices you should buy, etc. We have been very successful, so far, in targeting those audiences. We have people who are pushing referrals to us regularly to get new people using the system. I think that makes for a compelling case, because discharge planners have identified people who are most in need. A bigger challenge is if you try to retail products like these. We do have it available for general purchase, but I think the question mark is around whether the person is in the right frame of mind to buy, unless their health conditions are creating immediate problems for them or their loved ones. This is a big challenge in healthcare. Although startups want to target populations that are healthier and figure out ways to improve wellness, the business models there have been a little bit problematic. That is because there is always the question of who is paying for it, how enduring is that solution for the user and is it providing them with some utility that will keep them engaged. From a startup perspective, the challenge in wellness is one of stickiness and retention. Think about the New Years' effect with gyms. Your gym membership is interesting in January. By March, you quit because you are saying, "I cannot stick with the program." It's similar for startups focusing on building wellness solutions. For them to work, there needs to be greater investment from self-insured employers and payers.

CEO CFO: I cannot imagine why anyone would not recommend your system as it does so much more than others. When you are talking with potential recommenders do they understand immediately?

Mr. Mishra: It is interesting that you mention that and I do appreciate that. Since we just released it in October, we have found a very positive response from the people who have been working across the care continuum. Everyone from home health agencies to skilled facilities; they are all looking for ways to help people age in place. I think that they are all fairly convinced that the standard panic button does not help you do that. That is because there is no additional information about a person's safety or wellness and we are providing that type of information. One thing early on that we realized too is that many of the people in this market, users and caregivers, are quite price sensitive. The people who are often most at risk are the 9 million dual eligibles. These people who are both on Medicare and Medicaid are at high risk, and they also do not have high income levels. Therefore, there are always questions about who is paying for it; will your adult child, the caregiver, pay for it or will it be reimbursed by Medicaid. A couple of great things about this is that the product is reimbursable in many states by Medicaid. They will reimburse for the installation of the service, the testing of it and the monthly subscription at the call center. That is a nice piece for patients who are lower income to get this reimbursed.

Another challenge is just getting the attention of discharge planners. It can be difficult. Discharge planners are often very busy. They are not necessarily a dedicated person in the hospital. They may be the nurse, they may be a social worker, but they probably have multiple jobs. That said, we have been getting good traction through this channel.

CEO CFO: What have you learned in your previous ventures that has been of most value at QMedic?

Mr. Mishra: With startups, the key lesson that I learned is that you really have to validate your product-market fit before you try to scale up; whether that is scaling up sales or scaling up product, you have to really make sure that you are adjusting to customer needs and user needs first. I think that figuring out the right scale and validation points is critical.

We have also learned that you have to think about what the immediate incentives are for your customer or your distribution partner to buy into a system. This is a really exciting time in healthcare, where the Affordable Care Act has put so many things in transition: the incentives of 2011 are not the same as the incentives of 2013. One specific example is that in 2012 October, hospital readmission penalties went into place where hospitals are now penalized if patients are admitted within thirty days of discharge. When you think about the incentives that are tied to that, every hospital is evaluating, saying, "How can we recommend products and services that keep our patients out of the hospital for longer. There is now a greater alignment across the care continuum to keep people aging in place and it is a relatively recent development. For a long time you had brick and mortar businesses like nursing homes and assisted living facilities dominating the long-term care market. Those will continue to exist, but I think they are going to be phased out over time, where fewer people, especially Baby Boomers, are going to want to live in a nursing home. At QMedic, we are saying, 'How can we align what we are doing with what caregivers want, what users want, what hospitals want and what the entire care continuum is ultimately looking for,' which is to keep people aging in place.



Qmedic
877-241-2244
www.qmedichealth.com