



*“Worry about go-to-market, not product”*

Punit Soni - CEO of Suki

## Dynamics of Innovation

Coordinator: Prof. Marco Cantamessa

May 27, 2019

Jacopo Pio Gargano

# Contents

I The Company	2
II Industry and Market Analysis	3
III Strategy and Business Modelling	5
IV Intellectual Property Rights	7
V Resistance to Change	8
VI Conclusions	9
VII Bibliography	10

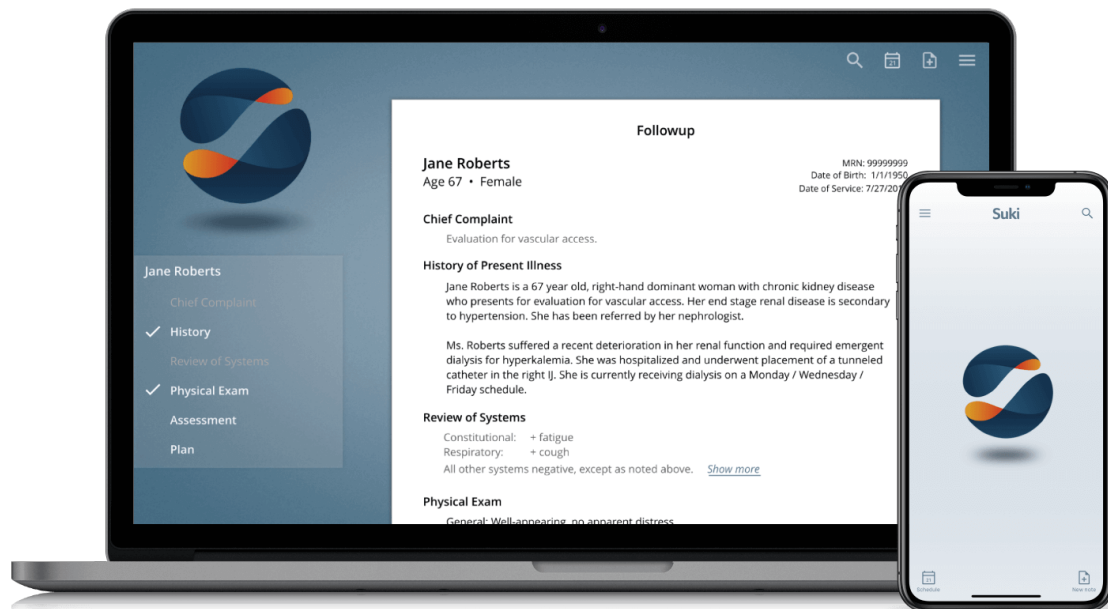
## The Company

Founded in 2017 by Punit Soni, headquartered in California, Suki is a startup developing a digital assistant for doctors. It is made up of 37 young and talented engineers, designers, economists and doctors, sharing the mission of “*putting doctors first*”[4].

After working for more than 8 years at Google as Lead Product Manager, Punit Soni identified as a healthcare problem “*that doctors [when visiting a patient] stare at screens instead of patients [...] [and that] the person in the room the most distracted is the doctor*”[1].

Moreover, he believes that “*clinicians burnout is the biggest public health crisis*”[1] and that it is Suki’s job to solve this issue by “*being an assistant [not replacing the doctor]*”[1]. As a matter of fact, according to [3], “*in the examination room with patients, physicians spent 52.9% of the time on direct clinical face time and 37.0% on EHR [Electronic Health Records] and desk work. [...] [physicians] reported 1 to 2 hours of after-hours work each night, devoted mostly to EHR tasks*”.

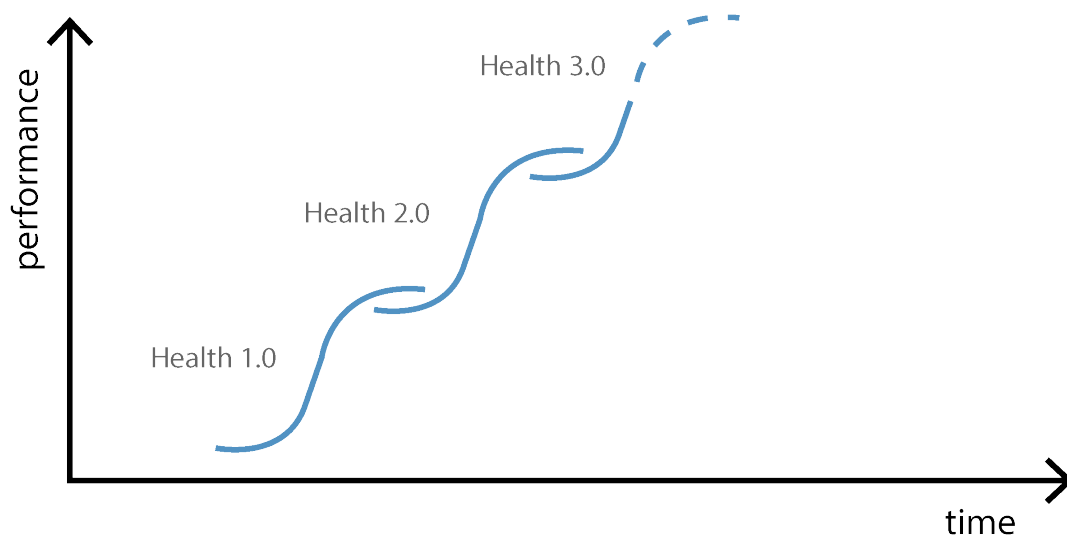
Powered by AI, activated by pronouncing “Suki”, the purpose of this assistant is that of helping doctors with paperwork saving them precious time, being as invisible as possible to them. In addition, Suki will be able to adapt to each doctor’s practice, becoming smarter as it is used [2].



## Industry and Market Analysis

The kind of innovation that Suki is bringing to the market is not purely driven by a technological advance. Although Suki uses powerful artificial intelligence algorithms, its innovation relies on providing an answer to a well-studied real-world issue: doctors spend several hours filling in EHR and are not completely focused on the patient during a visit [3]. Consequently, this generates a market demand for a digital assistant that can facilitate the doctors' job, such as filling in the necessary paperwork, in an invisible and seamless way.

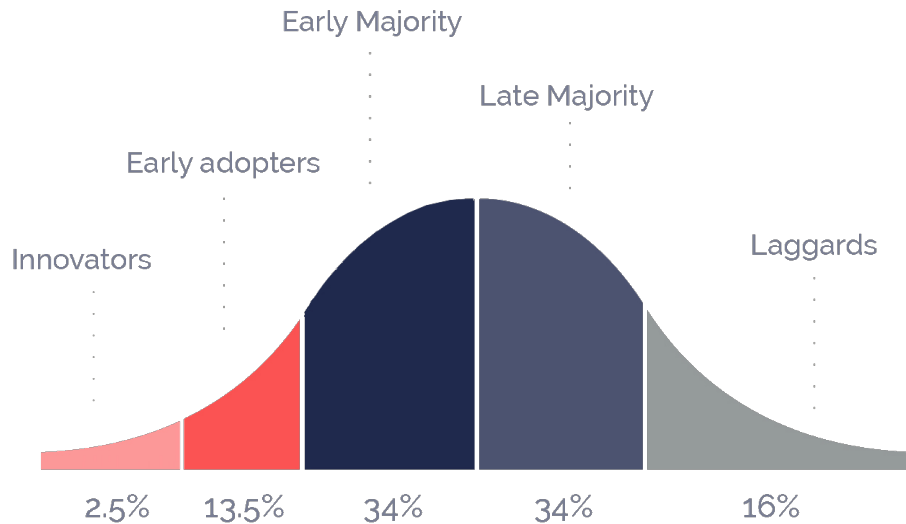
Suki has already a demo available and *“currently has 12 active pilots within internal medicine [...] in California”*[4]. Therefore, Suki can be classified as having a TRL (technology readiness level) of 7, as it is still under testing in an operational environment and it is being further developed by the company.



S Curve of Technology in Healthcare

In [1] Dr. Damania and Punit Soni, CEO of Suki, talk about the different phases of healthcare. Health 1.0 *“was [all] about this relationship [between the doctor and the patient] [...] [as] they [patients] didn’t have Internet [access]”*[1]. Health 2.0 comes along with the advent of computers and business processes, however *“the problem was they [technology improvements] suck the relationship out of it [the doctor’s visit]”*[1]. Because of Health 2.0 *“we lost something beautiful [the relationship] and that’s what we are seeing now in the moral distress, people are struggling”*[1]. New technologies, such as deep learning in natural language processing, allowed healthcare to take a big step forward towards Health 3.0, which, *“instead of creating a barrier [between the doctor and the patient]”*[1], adds meaning to data, in a semantic framework [10], and technology merely becomes an invisible assistant.

There are no doubts that Suki may become a disruptive innovation once it is launched on the market. Not having to spend hours filling in paperwork would surely result in countless benefits for doctors. Patients would be able to finally re-establish the patient-doctor relationship introduced in Health 1.0 and lost in 2.0 [1]. EHR vendors *“will be watching Suki, Google and other AI voice assistant developments closely”*[7].



Suki's Diffusion Curve

The diffusion of Suki can be represented through the adoption curve. As of now, only few pilot projects were launched. Therefore, the diffusion of Suki can still be considered among the Innovators, however it seems that not long from now it will be adopted by many more.

According to [8], the main competitors of Suki are Elation Health, Practice Fusion and DrChrono. These all operate in between Health 2.0 and Health 3.0, as they are focused on improving the doctor's experience with EHR. However, differently from Suki, they do not plan on limiting the doctor-EHR interaction, their goal is rather to increase it. [7] reports that *“the tech giant [Google] is already working with Stanford Medical to evaluate AI and voice recognition in generating EHRs”*. The Dragon Medical Virtual Assistant by Nuance [5] already delivers virtual assistants to doctors, however these are intrusive, as they work like Amazon's Alexa or Apple's Siri.

## Strategy and Business Modelling

“Worry about go-to-market, not product” is Soni’s, CEO of Suki, strategy [6]. He released an interview for First Round Review where he stated that usually the problem of startups does not rely on the product, which is totally dependent on technology. Instead, he focuses his strategy on “build[ing] a sustainable business model around that product”[6].

In [6] Soni talks about how his past experiences allowed him to build a solid business model for Suki. Before starting Suki, Soni worked for Google for more than 8 years and was CPO at Flipkart for more than a year [11]. His experience in such prestigious environments allowed him to understand what the key elements of Suki’s business plan and strategy were going to be.

First, he says that “whether you are in a big company or a small startup, a leader’s first job is to create a communication map”[6]. He believes it is fundamental that every member of a company knows who to talk to and when to talk. Then he prepared solid bases to his startup by “build[ing] a good network [...] [so as to] have strong connections with investors, as well as other entrepreneurs and engineers who would mentor me [him], help me and also join me”[6]. Not surprisingly, one of Suki’s main investors is Marc Benioff, CEO of Salesforce. Also Karthik Rajan, Suki’s CTO and Co-Founder [12], is an ex-Salesforce. Moreover, Soni’s work experience allowed Suki to have a solid financial basis, as he fixed an initial amount of money planning to be able to “survive a couple of years without any income coming in”[6].



Suki’s Business Model from data and deductions

The kind of research that Suki is bringing on is mostly about user experience. The goal Suki has is that of deeply understanding what a doctor's needs are. In order to do so, Soni spent *“six months just shadowing doctors and embedding myself [himself] in large health systems to learn what kind of issues they [doctors] were facing”*[6]. This is consistent with Suki's mission of creating a product for doctors, invisible to doctors.

Suki had a first funding round in 2016 where it was able to obtain \$5M through a seed round. About a year ago, Suki was able to raise three times more during a series A round. The major investors involved were Venrock, a venture capital firm investing in technology and healthcare companies, Social Capital and First Round Capital. Suki received capital also from Nat Turner, CEO of Flatiron Health, and Marc Benioff, Salesforce [8]. It is interesting to note that Flatiron Health is a healthcare technology company that *“offers a real-world evidence platform in oncology research for life sciences and an EHR data platform for academic medical centers and hospitals”*[13]. This shows how Suki is building strong relationships with partners, which are not only interested in collaborating, but also in investing in the company.

## Intellectual Property Rights

The company has no reported patents in Patent Inspiration and Google Patents.

A way Suki can protect itself from competitors is by establishing strong relationships with EHR software vendors in order to lock customers in by being the only virtual assistant compatible with EHR software.

Considering that AI products are still expensive, another way Suki could be preferred to competitors and reach more costumers could be by offering hospitals the possibility to opt for a low-cost version of the product, with limited functionalities. This would allow Suki to be a product for the mass and not only for wealthy hospitals.



## Resistance to Change

Customer acceptance is fundamental to understand what possible future users think about the product that is being designed. Interviews have been brought on in order to have a deeper understanding of how doctors and patients could react to Suki. Three people from Milano were interviewed, and are hereby anonymously described. The results of the interviews are then discussed.

- *A*: male, 23 years old, 5<sup>th</sup> year student at Vita-Salute San Raffaele University.
- *B*: female, 54 years old, geriatrician at L. Sacco Hospital.
- *C*: female, 32 years old, patient.

After a first explanation of the solution Suki offers, the reactions of the three interviewees were different. *A* was really interested in the matter; even though *B* showed stressed because of EHR paperwork, she was also skeptical; *C* seemed to like the idea of a better patient-doctor relationship.

*B* was the most doubtful about the technology as *“it is something new, that I [B] don’t really want to learn”*. This shows how older doctors may feel that technology is something difficult only getting in their way, without improving their tasks. *B* felt that she got used to the current technology and that it has now become a habit for her. *C* pointed out that learning something new that might not even be working well might just be a waste of time and money.

Doctors may also feel that technology might make mistakes while filling in EHR: *B* said *“what if Suki does not understand what the patient is saying and writes down something wrong? Who’s fault will it be then?”*. Doctors have many responsibilities and tend not to trust external agents in doing what they consider is their job. The regulations on legal responsibility might become a serious issue for Suki. The lack of legislation regarding virtual assistants may end up penalizing doctors for something they have not written in EHR.

*A* focused his thoughts on how this technology could reduce the time spent in EHR work and let doctors focus on something else stating *“every day I [A] see doctors busy filling in EHR. What if they could spend that time in research or in visiting more patients?”*. However, *A* was concerned because of the economic factors that would come in with Suki: he showed insecurity when asked *“where would the money for Suki come from?”*.

*C* showed concern for data processing and anonymization: *“I don’t want people at Suki to eavesdrop over my conversation with the doctor, which I consider strongly private”*. The concept of trust and relationship introduced in Health 1.0 is what patients may really care about nowadays. *“For sure I would like a better communication with my doctor”* *A* said; *“I would love to completely focus on my patient without being distracted by paperwork”* stated *B*.

Finally, if Suki is not able to work properly and it makes mistakes, doctors might have to interrupt a visit to correct what Suki has just filled in, resulting in a waste of time and in an increase in doctors’ and patients’ frustration.

## Conclusions

The core strength of Suki, relies on its ability of being invisible to doctors while completing EHR tasks for them. Interesting results that Suki achieved include the following:

- Suki was nominated the best new startup of 2019 by Rock Health, a venture capital company that only in the first quarter of 2019 invested \$1B in healthcare startups [9].
- Despite the interviews and the analysis carried out in **Resistance to Change**, results show that Suki *“cuts the amount of time physicians spend on medical notes by 60%”* [14].
- Suki is reported to be processing *“more than 1,000 patient interaction per week [...] early feedback from the pilot shows a 70% decline in time spent on medical notes”*[7].

Punit Soni’s experience in large tech companies and in product management together with Suki’s skilled employees prove the strength of the team that makes up the startup. Having strong key partners and investors, clear key activities to be brought on, thanks to both capital and human resources, Suki has a solid strategy to convey great value to its customers, with an estimated annual revenue of \$1.5M [8].

For these reasons it is recommended to invest in Suki as it has a great potential, also considering the great advances in Natural Language Processing and AI.

## Bibliography

- [1] Dr. Z. Damania, *Meet Suki, the Siri for Healthcare*, ZDoggMD - YouTube, 2019, <https://www.youtube.com/watch?v=vHDOkOIDEGE>
- [2] Suki's LinkedIn Page, <https://www.linkedin.com/company/sukihq/about/>
- [3] Christine Sinsky et al., *Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties*, American College of Physicians, 2016, <https://annals.org/aim/article-abstract/2546704/allocation-physician-time-ambulatory-practice-time-motion-study-4-specialties>
- [4] Suki's Official Website, <https://www.suki.ai>
- [5] Nuance's Official Website, <https://www.nuance.com/healthcare/ambient-clinical-intelligence/virtual-assistants.html>
- [6] First Round Review, *Navigating the Leap from Big Tech to Startups, Advice from a Former Google and Flipkart Exec*, 2019, <https://bit.ly/FirstRoundSuki>
- [7] M. Bryant, *Suki AI-based voice assistant tops 1K patient encounters a week*, Healthcare Dive, 2018, <https://www.healthcaredive.com/news/suki-ai-based-voice-assistant-tops-1k-patient-encounters-a-week/539392/>
- [8] Suki on Crunchbase, <https://www.crunchbase.com/organization/sukihq#section-funding-rounds>
- [9] Rock Health, <https://rockhealth.com/announcing-the-top-50-in-digital-health-2019/>
- [10] T. Shaw, *Healthy Knowledge: Semantic Technology & the Healthcare Revolution*, EContent, 2010, <http://www.econtentmag.com/Articles/ArticleReader.aspx?ArticleID=69404>
- [11] Punit Soni's LinkedIn Page, <https://www.linkedin.com/in/punitsoni/>
- [12] Karthik Rajan's LinkedIn Page, <https://www.linkedin.com/in/karthikrajan/>
- [13] Flatiron on Crunchbase, <https://www.crunchbase.com/organization/flatiron-health#section-overview>
- [14] S. Sharma, *Venrock leads \$15 mn investment in Punit Soni's health-tech startup Suki*, VCCircle, 2018, <https://www.vccircle.com/venrock-leads-15-mn-investment-in-punit-sonis-health-tech-startup-suki/>