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Revolutionizing the Video Marketing Industry using Artificial Intelligence

At Vyrill's offices, towering above the Financial District and overlooking the Bay Bridge, Ajay Bam had a feeling that his team was about to revolutionize the video marketing industry. With an incredibly diverse team: Gay CEO, female CTO, a gender equal engineering team, three employees based in India, and one in Spain, Vyrill had the right foundation to disrupt Silicon Valley altogether. Their unique artificial intelligence technology was two years in the making; however, the series of events that led to this exact moment took a lifetime to develop. Vyrill was now ready to launch as the next "Google of video marketing". At the back of Ajay's mind, however, lingered pressing concerns. Vyrill was still trying to get its first customers-- their business model was not proven. Time was of the essence. Their 12-person team needed to bootstrap with little money and grow both faster and more efficiently than emerging competitors.

An Entrepreneurial Upbringing

Ajay Bam was born in Pune, India and raised in both Dubai and Muscat. As a child, he was surrounded by an entrepreneurial environment. His father owned a textile factory while his mother ran a greenhouse business – they were disconnected from the "9 to 5" lifestyle. Ajay was told at a young age to think big. As his father always used to say, "Own your destiny, don't work for one." Instead of asking "What must I do next to get by?", he grew up asking "What is the next big thing to solve?". His upbringing taught him to think big, be visionary, and to solve big problems.

Beyond this entrepreneurial mindset, Ajay also learned to think from many different perspectives. While, travelling the world, consequently, picking up multiple languages along the way, including German, Japanese and Arabic, Ajay learned to put himself out there and appreciate different cultures and backgrounds in addition to appreciating diversity. Ajay reflected, "You know who you are, where you come from, and what you have." He was ready to own his intel, instead of working for them.

This case was prepared in the Sutardja Center for Entrepreneurship & Technology by Lecturer Stephen Torres, editors Mudit Goyal and Thomas Ferry, and case researchers Adam Dada, Aneesha Lugani, and Austin Vuong, Devina Darmawan, Kevin Van der Eijk, and Tanvi Mongia. It was reviewed and approved prior to publication by a company designate. Funding for the development of this case was provided by the University of California, Berkeley and not by the company. Berkeley Engineering cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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An Education in Engineering and Entrepreneurship

Ajay earned his Bachelor's degree in Computer Science at the University of Mumbai and his Masters in Software Engineering from East Tennessee State University. After graduation, he began working in a rotational program at Lehman Brothers with the goal of developing his financial skills and background. After two years of learning numerous different skills while working at a large company in a rotational type program, he was ready to begin his entrepreneurial journey.

Ajay enrolled in Babson College's Entrepreneurship Intensity Track program to earn his MBA and further complement his skillset. This program was highly compressed and focused on developing the necessary skills to take a business idea forward to execution through the critical stages of exploration, investigation, and refinement. Classes, however, only made up 20% of his time at school, because the program graded more on the success of the new products that students developed. Ajay described the remainder of time getting an MBA as 50% networking and 30% pursuing your passion. At the end of the day, Ajay knew, "It was not about what your professors did for you, it was about your level of participation and what you brought to the table."

Ajay's First Startup

Between Ajay's first and second year at Babson College in 2000, he partook in a four-month international management internship by working at a startup in Munich, Germany. During this time, he noticed that fancier phones were becoming more popular in Europe. From this, he inferred that the same would happen in the United States. Along with better phones, it could also be inferred that mobile applications were going to soon explode. Ajay returned to the U.S. soon after and then, at the age of 26, started his first company, Modiv Media. Modiv Media developed both the first mobile wallet and mobile marketing technology in the country. The company pivoted from being a mobile wallet to more of a mobile rewards application after realizing that people were not enthusiastic about paying with their phones, but they were excited about reaping rewards points despite the payment method. Over a six-year period, the company raised over \$18 million in funding. After growing his company for eight years, Ajay was ready to exit and look for new opportunities. Modiv Media was acquired by Catalina Marketing, which implemented their technology in major grocery chains across the country.

With his extensive experience in the mobile payments space, Ajay was then given an offer to join Nokia as their Senior Global Product Manager for Mobile Commerce and Billing. He took it. Although he considered Nokia to be one of the best companies he's ever worked at, Ajay noticed the company was in trouble. The company had over three groups of teams with different operating systems competing for market share rather than working together on a vision for one platform or device. Furthermore, while Nokia lagged in stepping up their smartphone game, Apple swept the market by storm. Ajay foresaw this doom and left the company in 2012, right before its acquisition by Microsoft.

The Creation of Vyrill

One phone call set the wheels in motion. After leaving Nokia in 2012, Ajay received a call from the Berkeley-Haas Undergraduate Entrepreneurship Program to be a lecturer on

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entrepreneurship and innovation. Ajay gladly accepted and packed his bags for the San Francisco Bay Area, where he knew he wanted to launch another company, and was in the best environment to do so. Previously as the Global Product Management Leader of Nokia, Ajay wished he could make sense of the millions of customer review videos – what were they raving about? What were they complaining about? With over 3 billion smartphones in the world, every person in the room with a smartphone is a producer, director, and editor of video content. There was a huge market for leveraging user-generated video content, and thus, a huge opportunity.

After interviewing over 100 different brands about their problems, Ajay found the pain point: there was no platform to manage, analyze, and leverage video content. Brands had the desire to hear what people were saying about them on various social media platforms, but had no way to do so with one dashboard for video content. They wanted to be able to take action accordingly in real time, while needing the ability to use all this user-generated information for insights, promotions, and different digital marketing strategies. While working at Nokia, Ajay had led products and likewise wanted to make sense of customers' reviews.

Sifting through the millions of videos on social media about a product was impossible to do. For example, BMW cars alone have over 27 million videos on YouTube. If only there were a way to know which videos were reputable and which ones were not. If only learning the content of those videos, how many views they have, their ratings, and so forth could be found with a simple search. Ajay knew what he needed to build. But he also knew he didn't have the talent to do it alone.

Stronger as a Dozen

Vyrill began gaining traction in the penthouse of the Chase Building in Downtown Berkeley at the UC Berkeley accelerator, SkyDeck. Ajay lives by the motto, "take control of your story," which is exactly what he did while forming a disruptive, diverse group of people. Two star advisors – search expert Dr. Marti Hearst and artificial intelligence professor Dr. Michael Jordan – played key roles in advising the team. Dr. Marti Hearst recommended Dr. Barbara Rosario, who had completed her PhD in machine learning at Berkeley with her 10 years prior. It was as if Ajay had struck gold, as there are only 10,000 people in the world with significant expertise in machine learning. Barbara being one of them, joined the Vyrill team as co-founder and CTO. Ajay then formed a team of ten others over a two-year time period, including four Berkeley alumni as well as three India-based employees. Furthermore, many of the engineers on his team are women – a stark contrast to the lacking diversity in Silicon Valley.

Ajay not only strived to build a strong team, but also a strong culture where everybody feels safe and included. As a member of the LGBTQ community, he fostered a culture of diversity and acceptance so that his team could work well together and add value to each other. Under Ajay, there was an environment where everyone feels comfortable to grow.

Additionally, Ajay truly believed that the first 10 employees were the most important, because they would be the ones hiring the next 10 and setting the culture. Prior to joining the team, each potential member interns for four months. Then, both the Vyrill team and potential new member reassess whether they will be a good fit for one another. These values have set Vyrill apart from the rest of Silicon Valley – and investors have taken notice. The startup now operates out of the StartOut Growth Lab, an accelerator based in San Francisco that offers top quality office space, mentoring, education, and networking opportunities for young companies that happen to be founded or co-founded by LGBTQ entrepreneurs. With such a strong team and environment, Vyrill has developed an even stronger technology.

Pivotal Technology

Vyrill originally began with a B2C model, enabling potential customers to make sense of millions of reviews before purchasing goods all with one simple search. But first, the team needed to get brands to join their platforms so that potential customers could search for the companies' products. When companies saw the platform potential customers would use, they wanted it for themselves to monitor their own content – and they were willing to pay a lot more for it. So, the startup switched from a B2C model to B2B.

Vyrill's artificial intelligence capabilities enable brands to hear what people are saying about them on various platforms. Brand managers want to use Vyrill for deeper insights about their products, customers, promotions, and digital marketing strategies. For example, Vyrill is now able to go on YouTube and find every video for BMW and match it by car make, model, year, and more. This platform is being trained to watch millions of videos simultaneously, understanding their content on a massive scale and provide insights based on the Al-generated analysis. From there, the platform can notify brand managers to take according action in real time. Complaints can be addressed by the company's customer service department before the outbreak of a massive PR crisis while praise can be leveraged by the company's marketing department.

Not only can Vyrill identify information about the product being described, but it can also identify information about the person in the video. Sentiment and age analysis can determine whether the review is positive or negative as well as whether the person is a customer or professional expert. Soon the technology should be able to use facial recognition and tone analysis to identify sarcasm, anger, frustration, joy, and sadness. Interestingly, companies are not only limited to their own products but can also see the same information about their competitors and react accordingly. Currently, Vyrill is focused on electronics, beauty, consumer packaged goods, automotive, and appliance industries. Once these millions of reviews are deciphered, they can automatically be added to their corresponding Amazon product pages.

The Future of Vyrill

Vyrill still has a long way to go. With a new market to explore, the company needs to find ways to attract its first customers and figure out how much they will be willing to pay for this new technology. Though the business model has changed, it is still not yet proven to be effective. Competitors have begun emerging and are also in the race to become the leader of video marketing. Moreover, given the scarcity of machine learning experts around the world, Vyrill needs to compete for talent against other major companies that can offer far more appealing salaries. Ajay's concerns still remain, "How do we bootstrap this with little money and 12 people?"

Nonetheless, Vyrill is set on this ongoing journey to be a successful pioneer of the AI video marketing industry. In Ajay's own words, "We want people to just think of Vyrill when they think of videos, and let users understand these videos." With the hope of owning the video marketing space and becoming the Google of video marketing search, Ajay ponders Vyrill's path for success.

Founding Team



Ajay Bam - CEO

13+ years in e-commerce Experience in mobile & marketing 1 Exit of \$25M MBA, MS - computer science



Dr. Barbara Rosario - CTO

10+ years in Artificial Intelligence Machine Learning & Natural Language Processing Ph.D. in machine learning and natural language processing.

Solid startup and technical backgrounds from U.C.Berkeley

⊘vyrilL

Exhibit 2. The Inspiration for Vyrill

Questions other marketers ask themselves:



700+ hours of video-uploads / minute

How does my brand compete online/be seen?



Top video category "Product Reviews"*

How many posted? What are they saying?

*Animoto , **Reelseo

10x

User generated video views are 10x > than Brand generated videos X

Who is viewing? Are they brand safe?



60%** of consumers mention that influencer videos nailed purchase decision

Which videos are converting & why?

☆vyrilL

Exhibit 3. The Volume of Videos for a Company

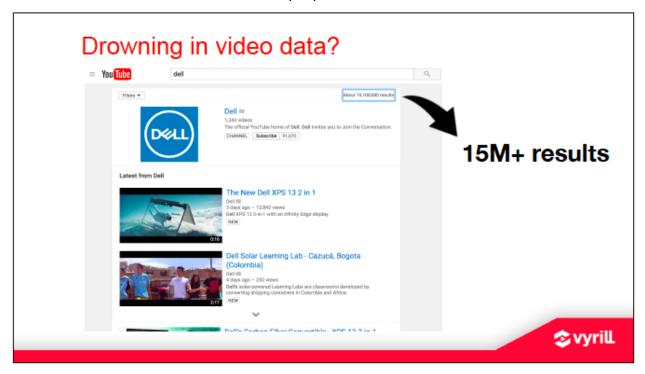
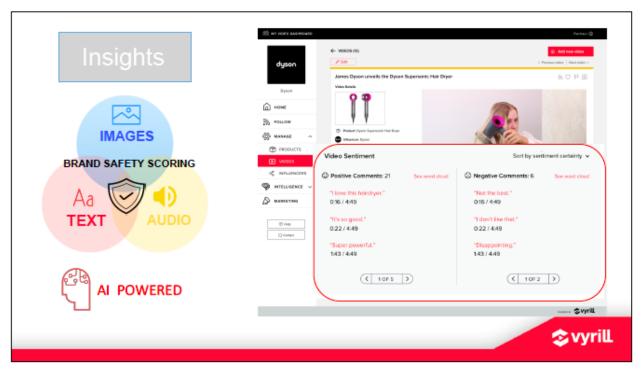


Exhibit 4. A Look at Vyrill's Dashboard



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Exhibit 5. The Business Impacts of Vyrill

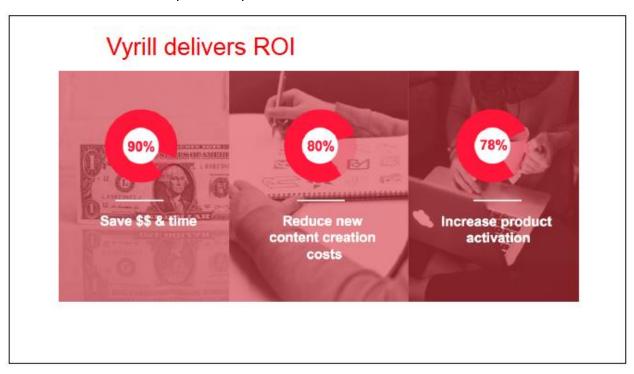


Exhibit 6. The Competitive Edge of Vyrill

	Vyrill	Crimson Hexagon	Medialy tics	Storyfu
Deep vertical focus – Electronics, Appliance, Beauty, Automotive, CPG		•	•	•
Brand safety video scoring				
UGVC Licensing				
Competitor tracking and insights				
Content Marketing for product activation			•	0
E-commerce API				
Brand point of view				