wcveVR

Social Virtual Reality for All

Start-up Business Plan

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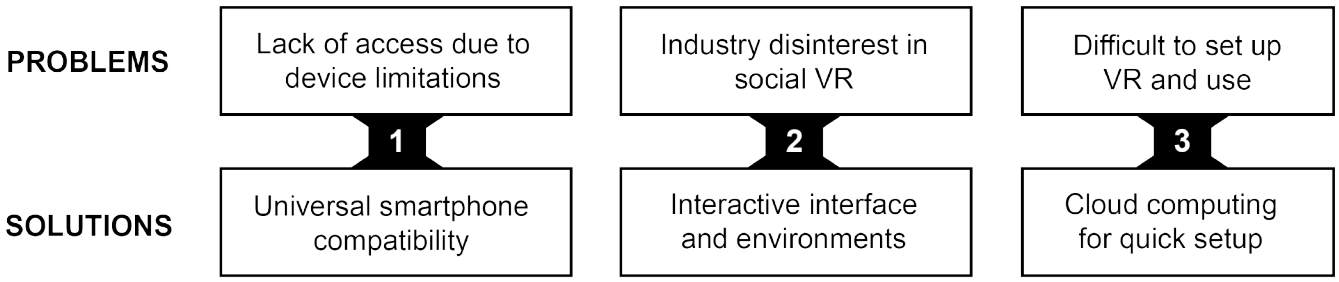
Social Virtual Reality for All

I. EXECUTIVE SUMMARY

The virtual reality (VR) industry is about to undergo a change that will be comparable to the introduction of personal computers or the smartphone. Social, mobile VR will revolutionize the way we communicate with others and interact with data. VR has the ability to simulate virtual environments that present the user with an experience that feels like real life. Our plan is to create a universal, inexpensive VR headset and social platform for customers to pass time with friends, work, or simply relax in different virtual environments. Our ***waveVR*** headset will utilize an innovate design that works in tandem with any user's phone as the display for the headset, providing VR access to billions of global smartphone users.



CUSTOMER SEGMENTS

- Primary Segment: Teenagers and young adults who effortlessly embrace new technology and are accustomed to constant social interaction over the internet (ages 12-24).
- Secondary Segment: Millennial business professionals who are looking for an immersive way to work and share ideas with others (ages 22-40).

UNIQUE VALUE PROPOSITIONS

- Lightweight App: Easy to use ***waveVR*** app that puts users in VR faster than traditional methods.
- Inviting Environment: Virtual environment that inspires curiosity to explore VR with others.
- VR Advertisements: Ability to tailor advertisements in virtual environments to certain individuals.
- Engineered Components: Active components such as sensors will go into the headset and other products to enhance immersion and overall VR experience.

CHANNELS

A. Pop-Up Demos: Free demo, with stock on-hand | B. Amazon Marketplace: Efficient distribution

KEY METRICS

A. Hardware Sales | B. Customer Engagement | C. Media Reception

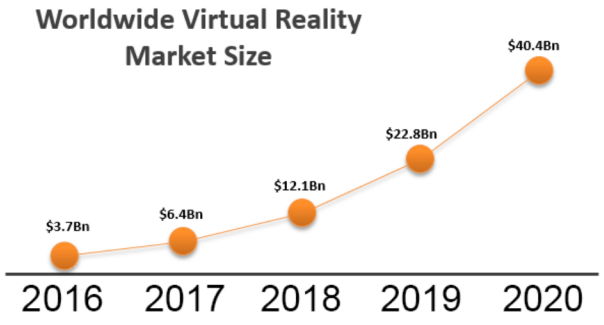
FINANCIALS

We would like to ask for a $500,000 investment for a 20% share in our company to manufacture our headset, create an ecosystem of add-on products, and develop our social platform. As more customers begin to interact with our virtual environments, we will have an opportunity to sell exponentially valuable advertising space that can be *tailored to certain individuals*. A portion of our operating costs will fund our pop-up demos, because we believe VR needs to be experienced to be believed.

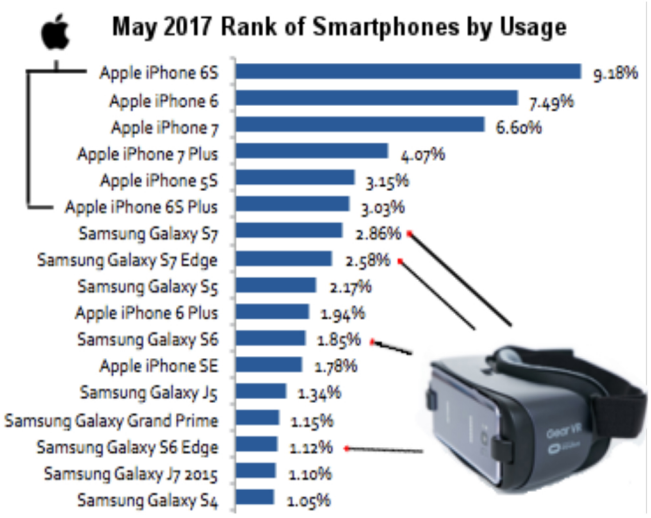
Cost Analysis

Pop-Up Demos	-$52,800
Employees	-$195,000
Development	-$240,000
Net Revenue at 10K Sales	$273,800

II. PROBLEMS



waveVR addresses limitations that currently exist in the VR industry with the introduction of a new social VR platform accessible for everyone. The consumer VR industry is still very new and is growing every year[1].



1. There is no streamlined system to bring social VR into every home. Every mobile VR experience out there is designed for a certain few headsets that only work with certain smartphones (i.e. Samsung Gear VR with Samsung Galaxy smartphones). Tethered VR solutions require a desktop PC with relatively expensive hardware ($1000+) to run the display of the headset ($400+).[2]
2. The VR industry has grown significantly in the past 5 years, led by a couple of big players such as Oculus (acquired by Facebook), HTC, and now Microsoft. Such companies have put most of their efforts into creating a community around game development, which has led to a lack of interest in the social aspects of VR in the form of social networks. While game development may progress VR, Oculus and HTC have failed to reach a large market in social VR experiences.
3. Companies have begun to focus on mobile VR tech, but widespread adoption is still unlikely at this point. The best mobile VR experiences are tedious and regular use is improbable for the general user. This in part is due to the technical limitations of using a smartphone as a display instead of a standalone headset, which is where mobile VR will ultimately end up moving. Before it can do that, the experience needs to be simplified and made accessible for the general user.

Is it easy for the user to purchase and open? ⇨ Does the setup require unnecessary steps such as downloading extra content? ⇨ Is it reliable and easy enough to use everyday?

III. CUSTOMER SEGMENTS

Primary Customer Segment - *Teenagers and Young Adults*

Demographics
- Age: 12-24

Psychographics
- Tech savy, adaptable

Teenagers and young adults who have a modern smartphone (within last 4 years) and access to the internet. Age range of 12-24 years (Gen Z and late Gen Y) because they are generally more accustomed to social interaction over the internet. Social media plays an important role in the lives of this target market, and virtual reality has the opportunity to take social experiences to the next level. This age range also has the ability to embrace new technology effortlessly, which makes them the primary customer segment.

Secondary Customer Segment - *Millennial Business Professionals*

Demographics
- Age: 22-40

Psychographics
- Work-orientated
- Efficient communication

A recent study of business leaders at the Global Leadership Summit in London found that 34% said more than half their company's full-time workforce would be working remotely by 2020. By 2025, Millennials (aged 22-40) will Comprise Three-Quarters of the Global Workforce[3]. Virtual Reality is just beginning to make its way into consumers' homes. This presents a huge potential for employers to eventually eliminate the need of a physical office presence for many occupations. Our secondary market will consist of those who use social VR for business use.

IV. UNIQUE VALUE PROPOSITION

Today in the VR industry, many companies are scrambling to find developers to create new and exciting content for their headsets and software systems. This is a step in the right direction, but lacks the main driving factor of popularity. Our plan involves the development of our smartphone-based ***waveVR*** headset that works with a wide range of smartphones, and the creation of a web-based app that will allow users to connect with each other in VR. Our headset is different from current products because of the wide range of people that ***waveVR*** will be able to reach.

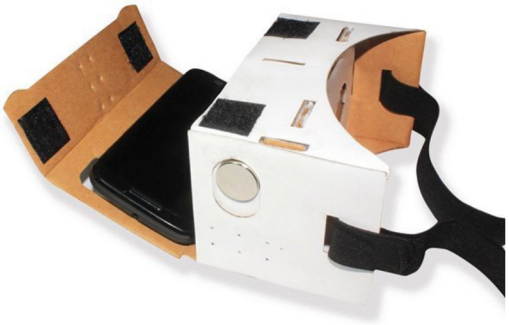


Figure 4.1 - Google Cardboard

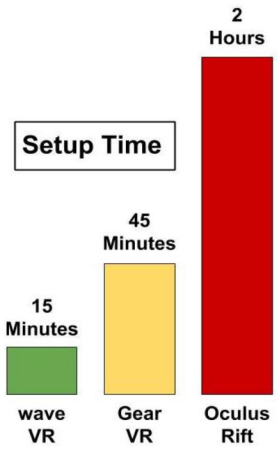
Figure 4.2 - Samsung Gear VR

Figure 4.3 - ***waveVR*** Concept Prototype 2

The majority of current smartphone-driven VR headsets, such as the Google Cardboard (Figure 4.1), are disregarded by most of the VR community because of their poor quality. To overcome this limitation, we incorporated active elements similar to those found in the Gear VR (a high quality mobile VR headset in Figure 4.2). These active elements greatly improve the overall VR experience for the user. Unlike the Gear VR, our headset will be compatible with a wide variety of smartphones because of its universal ability to hold devices of different sizes (Figure 4.3)

The ***waveVR*** app will power our social VR platform and will be available to anyone who has already purchased a headset. Our app will be very easy to set up in comparison to the many packages and updates required to use the Gear VR today. This is one of the greatest advantages of our app over our competition because it will reduce initial setup time and storage restrictions, making VR more accessible and practical for many devices and their users.

Social VR depends on the immersion of the user into virtual reality. This is the difference between the user wanting to spend two minutes or two hours in a virtual environment. Our main environment is inviting yet inspires excitement for adventure and ideas. Lined with limestone and futuristic architecture, *"HQ"* will inspire and excite every user upon entrance into VR (picture on cover). Users will have the ability to interact with each other and bond over small social VR experiences such as table tennis, mini games, or watching movies/videos. **waveVR** will be *the* hangout place, accessible by anyone with our product.



V. SOLUTIONS

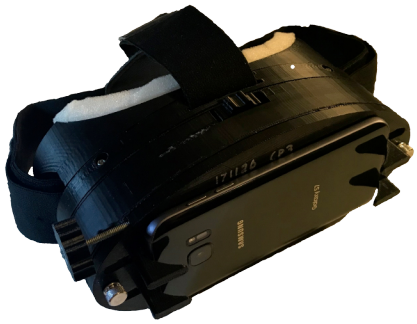
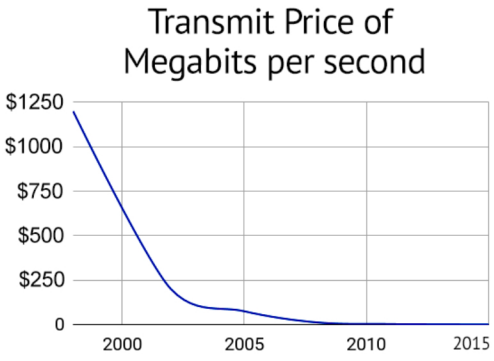


Figure 5.1 - ***waveVr*** with smartphone

1. Universal Smartphone Compatibility: The ***waveVR*** headset is designed to be compatible with most modern smartphones manufactured in the past 5 years[4], ensuring that our product will reach a wide variety of consumers. While the Gear VR represents only a fraction of the total amount of android devices, our product will be accessible to a broader market of smartphone users because of its universal design (Figure 5.1).

Figure 5.2 - 2D App Interface

2. Interactive Interface and Environments: The interface of our VR universal service has been designed as intuitively as possible. Settings are clear. Virtual environments are easy to join. The 2D app is engaging and makes it easy to launch into a social environment (Figure 5.2). One of the key features that sets us apart from our competitors is the way in which graphic processes are managed in the background. As soon as our app is launched, a background task initializes the 3D environment while the user interacts with a 2D interface in the app by logging in and choosing which "lobby" they want to join. Once the environment has been rendered, the user has the option to enter the VR environment by inserting their smartphone into the headset.



3. Cloud Computing for Quick Setup: VR setup is time consuming and requires large, complex, software to emulate a virtual environment. In order to provide an immersive experience while maintaining ease of installation, we have decided to base much of our software on cloud computing. This allows complex applications and graphics to be processed in the cloud, freeing valuable resources on our users' devices. The cost of transmitting data across the internet has decreased by 30% annually[6]. This means that even with streaming large amounts of data to our users, the cost of operation will be significantly less than our virtual profits.

VI. CHANNELS

When it comes to selling an experience as unique as virtual reality, we must make it a priority to provide customers a place to come in and experience social VR firsthand. These physical locations will be in addition to a modern online marketplace for our products.

Pop-Up Demos: Based on the results of our survey, many people expressed a desire to try VR before purchasing a personal headset[7]. This is why we want to provide pop-up stores at locations such as state fairs, festivals, and major shopping centers. The low overhead costs and great foot traffic through urban areas will allow many people to experience virtual reality firsthand. Another advantage of a physical location is the ability to have product on-hand. When a potential customer enjoys their experience, they will have the option to walk home with a new headset that day.

Amazon Marketplace: Outside of our pop-up stores, another channel of distribution we will implement will be through an online marketplace. We will partner with Amazon distributors in order to make the purchasing and distribution process effortless. Nearly every tech company has partnered with Amazon to sell their products through the Amazon marketplace. This is because of Amazon's unmatched efficiency in distribution and ease of access for customers looking to purchase our products.

VII. REVENUE STREAMS

Revenue Model: While we plan to generate a small profit on each headset, most of our profits will come from an ecosystem of add-on products around our ***waveVR*** headset. These add-ons will have higher profit margins than the headset and will include different motion controllers, rechargeable battery straps, and even prescription lenses for the headset. This strategy is utilized by companies like Fitbit and GoPro to build strong ecosystems of add-ons around their main products that end up generating more revenue for the company than the main products themselves[8]. *(Table on next page)*

Cost Breakdown of Different Products Offered.

***waveVR* Products**	Headset	App (service)	Motion Controller	Battery+ Strap	Corrective Lenses
Cost of Development	$60,000	$160,000	$10,000	$2,000	$8,000
Cost of Raw Materials	~$30	-	~$8	~$5	~$12
Price for Consumer	$59.99	Free	$29.99	$19.99	$29.99

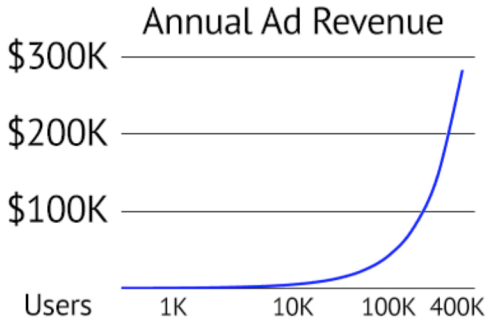
Although we would like to assume that every headset sale will incur the sale of of an add-on, we understand that not every add-on is going to be purchased by the consumer. Based on sale trends of other VR headset sellers, we can predict the probability of each add-on assuming the sale of a headset. We can predict the profitability of our products at the one-thousandth and the ten-thousandth sale.

Profitability of *waveVR* Products by the Numbers

Probability of Purchase	100%	100%	20%	10%	6%	Total
Net Profit (@1k Headsets)	-$30,000	-$160,000	-$5,600	-$500	-$6,920	-$203,020
Net Profit (@10k Headsets)	+$240,000	-$16,000	+$34,000	+$13,000	+$2,800	+$273,800
Per Capita Profit (@1k Headsets)	-$30	-$160	-$5.60	-$0.50	-$6.92	-$203.02
Per Capita Profit (@10k Headsets)	+$24	-$16	+$3.40	+$1.30	$0.28	+27.38

Lifetime Values: As more customers purchase our headsets and use our service, we will have a greater ability to monetize certain experiences. Various advertisers within our virtual environments will be able to reach their desired target markets very efficiently (Figure 7.1). We can generate great profit by allowing advertisers to tailor their ads or marketplaces to certain individuals. This is the most effective way to advertise, and has the potential to be more efficient than advertising in the real world. For a user interested in music, a Spotify ad may appear in a designated ad space. For a different user interested in the NBA, an embedded TV with a live game may appear. The advertising possibilities are limitless.

Figure 7.1 - Advertisements in Vritual Environment



VIII. COST STRUCTURE

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Customer Acquisition Costs: We will initially rely on social media to promote our business and our pop-up demo events. Most of our advertisement money will be spent on the following web services. We chose to allocate a specific amount of capital to each social platform in order to optimize our ROI (return on investment), and decrease our CAC (customer acquisition cost) by decreasing our overall spending on advertising.

Google Site Rank

$1000/mo

Facebook

$900/mo

Twitter

$800/mo

Instagram

$500/mo

Total:
$38,400/yr

Distribution Costs: The distribution costs of our products will vary depending on whether they were purchased in our partner stores or through our online marketplace. Because our products will be distributed by Amazon fulfillment centers, we do not have to worry about getting our products to the user. The cost of being an Amazon seller is $39.99/mo, with a small additional fee for each sale[9].

Human Resource Costs: Our human resource costs can be adjusted depending on the growth of our user base. For $67,000 a year, we can hire an application developer[10] to add more content and maintain the *waveVR* platform. We will also need someone working full time on marketing. So, for $48,000 a year, we can hire a social media manager[11] to interact with the community and devise ways to promote our products and service online. We will both work for $40,000 a year initially to coordinate the pop-up demo events around the country, and oversee the daily processes of business. We will also hire a worker at $10/hour to be positioned at our pop-up demos to assist potential customers and answer any questions.

App Developer:	$67,000
Social Media:	$48,000
Owners:	2x $40,000
Total:	**$195,000**

Additional Costs: Based on our research for a two-week duration, it will cost roughly $3,000 per shop.[12] We plan to host our demos once a month and have our pop-up demo open from 11 AM to 9 PM.

Demo Setup: 12mo | $3,000	
Worker: 10hr | 14day | $10	
Total:	**$52,800**

IX. KEY METRICS

Hardware Sales: After we have received customer feedback during our development phase, we can easily evaluate our competitive position based on sales of ***waveVR*** products. We will be able to tell if a certain aspect of our ecosystem needs improvement by initially comparing weekly sales figures of our headset and peripherals to our competitors. Ideally we want to generate enough revenue to fund the expansion of our service and fund research for future products such as higher quality headsets that don't require a smartphone to operate.

Customer Engagement: Before it was cost-effective to collect, transfer, and analyze information from every user who uses their service, businesses had to rely on crude financial statistics to predict their competitive position in the marketplace. Monitoring how our users interact with experiences is significant because it allows us to tailor our paid content to different individuals[13]. We can customize certain experiences in VR to an individual's preferences and track the time they spend with different content, optimizing the customer lifetime value (CLV).

Media Reception: We will be able to promote our ***waveVR*** platform by introducing promotional events soliciting our users to share their unique experience. We can measure the effective reach of our platform by comparing the impressions we make on social media with the growth of our user base. One of the key roles of our social media manager will be to interact with the community, answering any questions or complaints users may have.

X. COMPETITIVE ADVANTAGE

1. The biggest competitive advantage we have over our competitors is the versatility and value of our product. We are able to maintain these key advantages by ensuring the low cost of our headset and its ability to work with many types of smartphones. This directly solves the issue we mentioned earlier of accessibility in the VR industry.

2. One major advantage we would have over software distributors such as Oculus and SteamVR is the mobile accessibility of our platform. Although the Steam platform is considered to be the largest distributor on PC games[14], they lack content in the mobile sector of computing. Our service will be completely mobile based because of the great potential to reach a larger audience than traditional desktop-based computing. Immersive content will encourage developers to join our platform, further increasing the incentive for users to choose our service as their preferred social platform.
3. Another advantage we have over our competitors is the time it takes for our users to become interested in VR. We are able to provide our customers with a high quality experience while keeping the setup time at a minimum through a streamlined process. Instead of waiting to install large updates commonly found in many VR apps, our users will be able to jump right into our social environments.

XI. CONCLUSION

By the middle of this century, virtual reality headsets are expected to overtake mobile device sales[15]. Given the opportunity, ***waveVR*** products and social platform will have the ability to redefine the way we communicate with others. Our company will grow with an ecosystem of expansion products that will have the ability to generate a higher profit than our headset. As the amount of customers who use our social platform increases, we will have a greater ability to sell advertising in different virtual environments. Social virtual reality has the ability to connect millions of people across the world and will be the most common form of digital communication in the future. ***waveVR*** is in a very unique position. We are one of the relatively few companies to be directly involved in the virtual reality industry. With our plan and your investment of $500,000 for a 20% share in our company, we believe we will have the ability to evolve the VR industry into the greatest social environment of our generation.




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