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# Proposal for Virus Virgil

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## Executive Summary

The current mass outbreaks of COVID-19 in the United States and other nations have created a need for up-to-date and accurate information. Sources for this information are disconnected and disparate, however. This means that tracking outbreaks, for the average person, is a veritable scavenger hunt across outdated government websites and hard to navigate apps.

Our Virus Virgil seeks to address this need by creating an easy to use application that aggregates information from a variety of sources and readily presents them in practical ways to the end user. Virus Virgil will also aim to be adaptable with several different plugins that can be created to tailor the experience to different groups in a sleek and intuitive interface.

Virus Virgil will also aim to be versatile and accommodate a variety of different diseases, not just COVID-19. This will enable Virus Virgil to cultivate a permanent user base while addressing a

constant and never ending need. While this market is niche, there are currently no large competitors delivering a meaningful experience in this way.

## Gap in the Market

While disease outbreak information is available from sources like the CDC and state governments, these figures can often be difficult to find and meaningfully interpret for the average person. Further, for state and federal governments, reporting the severity of outbreaks is not often in their best interest, hence the often limited availability of the data.

Virus Virgil seeks to further disseminate up-to-date information to the public in an easy to use way while being presented in such a way as to be tailored to different groups' needs. Changing the way information is presented so as to make it more digestible and intelligible can be a highly sought after need for most people's busy lives.

## Meeting the Market's Needs

By presenting data in a more usable way and offering the ability to tailor the user's experience, Virus Virgil will address the need for up-to-date and accurate information to the public so that they may make informed decisions relating to work, travel, preparation, and socialization. This provides people and businesses with a solid platform from which to keep each other aware and informed.

## Implementation

### Management

Virus Virgil will be managed by its contributors: Brian Tsai, Corin, John Luke Denny, Nicholas Levergne

### Development

Virus Virgil will be developed using the following technologies:

- Frontend (User Interface) -
  - JavaFX/Java Scene Builder
- Backend (Data analysis and API data interpreter) -
  - COVID Tracking project API
  - US Census Bureau data
  - Java 8

## **Marketing and Distribution**

Virus Virgil will be made available through a desktop app, Google Play, and the App Store. We can advertise on commonly used websites like Youtube, Reddit, Twitter, etc.

## **Monetization**

Our app will be available to users for free with advertisements and limited features. Users may pay a subscription fee to remove advertisements and gain access to the full array of features in the app.

## **The Problem and Our Solution**

The primary issue with finding outbreak information is that sources are often difficult to understand and the websites information are hosted on are often outdated and hard to navigate. Our goal is to create a proactive application that alerts the user when outbreaks are happening and makes it easy for the user to see and understand information that is relevant to them.

## **Industry Need for Our Technology**

For current contact tracing, businesses often rely on their own internal systems and data collection instead of pooling resources with other nearby facilities and businesses. This is inefficient and leaves gaps in organizations' abilities to track outbreaks in real time. A single, easy to use platform that enables data sharing will provide better results and more reliable contact tracing in communities.

## **Market Analysis / Primary Market / Secondary Market**

At the moment, there is no single, large COVID-19 tracker on the market that we would have to compete with. Instead, our main competition would be the myriad smaller trackers across government, CDC, and university websites.

Our primary market group would be individual users in the United States, mainly those in urban environments. Our secondary markets would be people outside of the United States and businesses that wish to have a single product through which they may keep their personnel informed about the spread of the virus in their area.

## **Marketing Strategies**

### **Overview**

Virus Virgil's main goal is to be as ubiquitous as possible while offering ways for users to customize their experience. The goal is for the product to become mainstream and a default in

the market. Ideally, the product should be free for the average user (though with advertisements and limited customizability) and those wishing to remove ads and gain access to additional features may pay a subscription.

### **Primary Customer Analysis and Entry Strategy**

The primary method through which our product will enter the market is through its free usage and accessibility. By making a product that is easy to use and install, we can quickly generate usage through a few well-placed, inexpensive advertisements on sites like Google, YouTube, Facebook, Reddit, etc.

### **Core Competency**

The core competency of Virus Virgil is its ease of use and the fact that it will be free to casual users. We also aim to make this product a proactive one, meaning that it will actively notify users of relevant COVID-19 information based on metrics like location, place of employment, travel, etc.

### **Expansion Strategy**

While this product will initially focus on the tracking of COVID-19, it could easily be retooled to track other infectious diseases. We could continually offer new disease tracking, or use the app's notification functionality for other business-related purposes.

## **Sales Strategy**

### **Pricing**

Users may individually download and install Virus Virgil for free and enjoy free, though limited, use of the product with advertisements. Customers and businesses may also pay a subscription for enhanced features, usability, and no advertisements.

### **Positioning**

Virus Virgil will be available through traditional search engines, available for download to PC, and (if time allows) downloadable to mobile devices through services like the Google Play store.

### **Promotion**

Inexpensive, region-targeted advertisements on search engines, social media platforms, and other web-based forums will provide a cost-efficient way to inject Virus Virgil into the market.

### **Place**

Virus Virgil is a startup and can be run from home.

## **Competition**

Currently, no mainstream competitors in this niche infectious disease tracking market exist. Government websites and a few research institutes host their own COVID-19 trackers, but they are generally not used by the public and are often unintuitive to access.

## Development Strategy

### Planning Phase

Our team will begin to roadmap our product, search for and collect resources and databases for its development, and build a more concrete picture of the product's features and their feasibility.

### Drafting Phase

The team will split into respective roles to begin the actual development of the application. This phase will focus primarily on building out the framework and getting a working prototype developed

### Testing Phase

The team will regroup to go over progress made and test the functionality of the application in its current state.

### Review Phase

Things that need to be improved upon from the testing phase will be fine-tuned while features deemed infeasible or broken will be dropped back into the **Drafting Phase**.

### Polish Phase

A final overview of the product will be conducted and things like graphics, user interfaces, glitches, and last minute tweaks will be made until the product is to be submitted.

## Barriers

The primary barriers to a product like Virus Virgil will be -

- The limited scope of its market
- Reliable access to accurate COVID-19 data
- Initial cost of marketing
- Any up-and-coming competitors that are also currently making similar applications but are unknown to us

## Critical Risks

The biggest risk involved in Virus Virgil is that the public will have simply grown apathetic to COVID-19 and no longer care to track the spread of the disease. Also after COVID-19's spread slows, customers may not be interested in tracking any other disease and experience something akin to "disaster fatigue". There is also the risk that users may not wish to share

# Interviews

## Phone Interviews:

NAME: Sarah L

1. Are you concerned with the current spread of COVID-19?

Yes, god yes

2. Has COVID-19 made you more aware of other infectious diseases like the flu?

In a way . . .

3. Are you more concerned with current seasonal diseases and potential future diseases with the current spread of COVID-19?

Oh my god yes

4. On a scale of 1-10, how informed do you think you are on COVID-19 outbreaks? Why?

Covid, a 7, outbreaks a 2 or a 3 due to a lack of local information

5. Do you use any service to track COVID-19 infections?

I do not because I do not know of any

6. Where do you currently get your COVID-19 news from?

Medical journals (research) and local new stations (outbreaks)

7. Have you come into contact with COVID-19?

Thank god I have not

8. How likely would you be to use an app that tracks and notifies you of COVID-19 outbreaks?

20 out of 10, whatever the highest number I can go, because there are no resources like that available to me and I am immune deficient so I want to be aware of where it is in relation to me

9. Would you be willing to pay a subscription for a service like this?

One time 30 to 40 dollars, or 10 dollars a month, would even be willing to GoFundMe

10. Does your university or place of business have an easy to access site or app through which you may track COVID-19 as it relates to you?

Place of business does not, just word of mouth

11. Would you like your university or place of business to have such a service?

Yes, I feel like it would be beneficial to both our staff and customers

12. Do you believe the current COVID-19 outbreak in the US will get worse, or better in the near future?

Much worse

NAME: Riley B

1. Are you concerned with the current spread of COVID-19?

Yes

2. Has COVID-19 made you more aware of other infectious diseases like the flu?

Yes

3. Are you more concerned with current seasonal diseases and potential future diseases with the current spread of COVID-19?

There could be something like COVID again so yes

4. On a scale of 1-10, how informed do you think you are on COVID-19 outbreaks? Why?

7, family keeps up with the news

5. Do you use any service to track COVID-19 infections?

Reddit notifications

6. Where do you currently get your COVID-19 news from?

Reddit

7. Have you come into contact with COVID-19?

Not that I'm aware of

8. How likely would you be to use an app that tracks and notifies you of COVID-19 outbreaks out of 10?

9, don't like scrolling through Reddit, wishes she had one app specifically

9. Would you be willing to pay a subscription for a service like this?

3-4 dollars maybe

10. Does your university or place of business have an easy to access site or app through which you may track COVID-19 as it relates to you?

Don't know, there is a site, but it's not a lot, there's no real tracking

11. Would you like your university or place of business to have such a service?

Yes

12. Do you believe the current COVID-19 outbreak in the US will get worse, or better in the near future?

Worse, oh my god

### **Survey Interviews:**

Name: Katelyn Thibodeaux

1. Are you currently utilizing a website or resource to track COVID-19 cases in your area (city, state, or country)? If not, why? Yes
2. How often do you check on the COVID-19 cases in your area? once a week
3. What website/resources do you use to check COVID-19 cases? LA Department of Health
4. What do you like about the resources you use to check on COVID-19 cases? Shows breakdown of case data- able to see cases per parish, as well as death count, # of tests, etc.
5. Q6 - How important is each product feature to you in an outbreak/virus tracking app?
  - a. Notifications regarding COVID-19 cases: Extremely important
  - b. Notifications regarding COVID-19 hospitalizations/deaths: Somewhat important
  - c. Map graphics: Somewhat important
  - d. Charts containing trends in COVID-19 cases: Somewhat important



- e. Tracking of other viruses, diseases, STIs/STDs, etc. in your area: Not very important
- 6. Would you prefer to receive notifications via email or push notification directly from an app? Push notifications
- 7. Which viruses, diseases, STDS, etc. concern you? Hepatitis(A,B,andC), SARS, STIs/STDs (such as Herpes, Gonorrhea, Chlamydia, HPV ,HIV/AIDS, etc.), Flu
- 8. Would you use an app that tracks cases related to the following: COVID-19, diseases, viruses, STDs, etc.? Please explain. Yes, would be much easier to have an app at your fingertips that would send out notifications on daily reports rather than having to go to the website daily

Name: Elizabeth Shoenberger

- 1. Are you currently utilizing a website or resource to track COVID-19 cases in your area (city, state, or country)? If not, why? Yes
- 2. How often do you check on the COVID-19 cases in your area? Few times a week
- 3. What website/resources do you use to check COVID-19 cases? The Advocate
- 4. What do you like about the resources you use to check on COVID-19 cases? Its on the front page and easily accessible
- 5. Q6 - How important is each product feature to you in an outbreak/virus tracking app?
  - a. Notifications regarding COVID-19 cases: Extremely important
  - b. Notifications regarding COVID-19 hospitalizations/deaths: Somewhat important
  - c. Map graphics: Somewhat important
  - d. Charts containing trends in COVID-19 cases: Extremely important
  - e. Tracking of other viruses, diseases, STIs/STDs, etc. in your area: Somewhat important
- 6. Would you prefer to receive notifications via email or push notification directly from an app? I wouldn't want to receive notifications
- 7. Which viruses, diseases, STDS, etc. concern you? STIs/STDs (such as Herpes, Gonorrhea, Chlamydia, HPV ,HIV/AIDS, etc.), Flu, and Ebola
- 8. Would you use an app that tracks cases related to the following: COVID-19, diseases, viruses, STDs, etc.? Please explain. Yes, if it were easily read and accessible I would use one. I think it is important to know the rates in your area

Name: Andrew Finn

1. Are you currently utilizing a website or resource to track COVID-19 cases in your area (city, state, or country)? If not, why? No, it stresses me out to tack things like that
2. How often do you check on the COVID-19 cases in your area? N/A
3. What website/resources do you use to check COVID-19 cases? N/A
4. What do you like about the resources you use to check on COVID-19 cases? N/A
5. How important is each product feature to you in an outbreak/virus tracking app?
  - a. Notifications regarding COVID-19 cases: somewhat important
  - b. Notifications regarding COVID-19 hospitalizations/deaths: Somewhat important
  - c. Map graphics: Slightly important
  - d. Charts containing trends in COVID-19 cases: Somewhat important
  - e. Tracking of other viruses, diseases, STIs/STDs, etc. in your area: Somewhat important
6. Would you prefer to receive notifications via email or push notification directly from an app? Push notifications
7. Which viruses, diseases, STDS, etc. concern you? E. Coli, STIs/STDs (such as Herpes, Gonorrhea, Chlamydia, HPV ,HIV/AIDS, etc.)
8. Would you use an app that tracks cases related to the following: COVID-19, diseases, viruses, STDs, etc.? Please explain. Yes, I need to keep up with these statistics whether it stresses me out or not