

# Friendly.AI

## Business Model Design + AI-powered Operating Models



*"A virtual chatbot and friend that helps you navigate life's big challenges"*

# 1. Business Model Canvas

# Business Model Canvas Diagram

## Cost Centers

### Key Partners

Who should be involved as you produce and deliver your solution?

**Government/NGO Organizations:** The National Institutes of Health (NIH), American Psychological Association (APA), etc.

**Academic Institutions:** Virginia Tech, U. of Maryland, George Mason, George Washington U., Georgetown U. etc.

**Industry Partners:** Amazon Web Services, Reddit, Twitter, Meta, etc.

- **Loneliness is such a pervasive problem that a holistic consortium of partners is needed to really address the problem's root cause.**
- From government institutions/NGOs to researchers in academia to industry partners, **Friendly.AI** will solicit feedback from all parties that may offer unique views and critiques of our solution.
- The app is most likely going to be deployed on a college campus as the initial pilot, so it's important to nurture relationships with students who may become early users of the app.

### Key Activities

What do you need to do to produce, market, and deliver your solution?

1. Get the UI/UX designs flushed out and totally ready to go.
2. Concurrent to #1, build the prototype and get a usable MVP working ASAP.
3. Identify innovators who would be willing to test the app, possibly via social media.
4. Publish the app on the Apple App Store as well as the Android App Store.
5. Monitor the app's adoption and see what feedback there is from users. Pay attention to data points and fix them.

### Key Resources

What do you need to have in order to produce, market, and deliver your solution?

- Capital to hire a really talented UI/UX designer who has strong taste in product design, product management, and marketing.
- A public library would work in lieu of an actual office space.
- Office space where the team can work and collaborate.
- I am the chief engineer who code the application and might need help from a subject matter expert (SME), so we'll bring in a few engineering advisors.
- **Material needs include:** laptops, monitors, software, hardware for testing the app. Lastly, grit and determination most of all!

## Value Propositions

What problems do you have and how do you solve them?

• **Problem:** In the United States, there is a big problem with loneliness; in fact, the U.S. is in the midst of a loneliness epidemic. According to Surgeon General Vivek Murthy, one in two Americans feel lonely. Due to the after effects of the pandemic as well as turbulent economic conditions and layoffs, people are feeling more lonely than ever.

• **Solution:** Friendly.AI's mission statement is stated as - **"A virtual chatbot and friend that helps you navigate life's big challenges."**

• Friendly.AI is a mobile application with an AI-powered chatbot that provides conversation capabilities through voice. Users are able to customize an avatar that is similar in quality to what you'd see in a video game. The user is able to talk to the avatar 24/7 as a conversational partner.

• It is hoped that by using this mobile app, millions of people will improve their mental health and suffer less from loneliness, even though the support system is an AI. The app is ultimately a social good that helps people in need and gives them hope, encouragement, and positivity!

## Profit Centers

### Customer Relationships

How do you talk to your market about your solution? How do you acquire customers?

1. Establish personal relationships with customers in the beginning and solicit their feedback.
2. The CEO will personally interview customers to understand their pain points in the beginning.
3. The Friendly.AI solution offered will be of high quality and reliable.
4. Communicate to users that all private information shared will be encrypted and NEVER be sold.
5. By delivering an unforgettable experience, the app will attract new customers through word-of-mouth.

### Channels

How do you deliver your solution to customers and where can they find it?

1. Start with social media, Facebook, TikTok, Instagram, etc.
2. Partner with a university and get undergraduate brand ambassadors to spread the word.
3. Go to conferences, conventions, meetups, and festivals with a booth and provide info.
4. Speak at conferences, conventions, and meetups to get the word out on Friendly.AI.
5. Always encourage people to download the app, rate it, and provide feedback!

### Customer Segments

Who needs your solution? How many people need your solution right now or will eventually need it?

Customer Segments	Est. Adult Population in the U.S. with a Mobile Phone by Segment
Males aged 18-29	~25.2M
Females aged 18-29	~25.9M
Males aged 30-49	~41.7M
Females aged 30-49	~41.2M
Males aged 50-64	~26M
Females aged 50-64	~26.8M
Males aged 65+	~9.7M+
Females aged 65+	~10.9M+

- We are going to start by targeting the adult male segment here in the U.S. between ages 18-29. Within this segment, it's estimated that ~25.2M have cellphones and could be potential customers. It has been found that **adult males aged 18-29 suffer the most from loneliness.**
- Therefore, a natural place to launch the app would be in partnership with some college student organization at a university. Depending on how much traction there is, the app would then be rolled out to other segments such as female and older customers.
- Eventually depending on how well the app does, viral/explosive growth could lead to **100+M** people who are active users here in the U.S.!

## Cost Structure

- **Fixed Costs:** Machinery and equipment (i.e. laptop, office equipment, noise cancelling headphones, etc.), salary, SaaS subscription costs (including the cost to publish the app with Apple and Google). There will be no rent costs because the chief engineer and chief product designer will work out of public libraries.
- **Variable Costs:** Server usage costs, licensing, advertising and social media influencing costs, traveling, research and knowledge gathering.
- The application is going to have a **price-driven** cost structure in the beginning; our goal is to keep costs low to attract users in the beginning. The first stretch is going to be about delivering high quality at a low price. Then as the app achieves traction, we will change to a **value-driven** cost structure and charge a higher premium for exceptional service.
- The end goal is to achieve **economies of scale**, where millions of people are using the application. When that happens, it becomes much easier to negotiate prices with partners. Moreover, the app could potentially even expand beyond the U.S.

## Revenue Model

- The revenue model is going to be primarily a **subscription service**. There's going to be four different tiers of service: 1) **free tier**, 2) **bronze tier**, 3) **silver tier**, and 4) **gold tier**. Each tier unlocks more features and gives the user more features.
- In addition to subscriptions, revenue will be brought in through **advertising**. When the app has reached critical mass and has achieved a set of users who continuously come back to the app, advertisements will be introduced. The ads will be non-invasive in nature and really seek to provide professional services (i.e. counseling, therapy, meetups, events, etc.) so that people would get out of the house and meet other people in real life!
- Lastly, revenue will be brought in via **professional services/advisory**. Even though the application is primarily B2C, eventually the app could even serve B2B customers. For any company that wants to bring in Friendly.AI, we will have consultants and customer engineers to support them. This client-facing stream would generate revenue and sales for sure!

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## 2. Financial Models

# Gross Margin Model

Friendly.AI Income Statement	
	YEARLY (FY23-FY24)
<b>Total Revenue (Sales)</b>	150,000
<b>Cost of Goods Sold (COGS)</b>	
App Development & DevOps	10,500
Cloud Hosting Costs	5,000
Customer Support	5,000
<b>Gross Profit</b>	129,500
<b>Operating Expenses</b>	
Salary	40,000
Equipment (office and operating)	34,150
Advertising/Marketing	8,520
B2B SaaS offerings	9,200
Travel (Airfare)	4,000
Travel (Hotel, Uber, Meals, etc.)	3,500
EMI	250
Misc. (unspecified)	100
<b>Operating Expenses</b>	99,720
<b>Operating Profit</b>	29,780
<b>Reserve for Contingencies</b>	7,757
<b>Total Expenses</b>	107,477
<b>Net Profit Before Taxes</b>	22,023
<b>Federal Income Taxes</b>	4,361
<b>State Income Taxes</b>	1,817
<b>Local Income Taxes</b>	660.7
<b>Net Operating Income</b>	15,185

**Gross Profit Margin =**  
 $(\text{Gross Profit} / \text{Total Revenue}) \times 100$

**Friendly.AI Gross Profit Margin =**  
 $(129,500 / 150,000) \times 100 \Rightarrow 86.3\%$

# Operating Model

Friendly.AI Income Statement	
	YEARLY (FY23-FY24)
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**Operating Profit Margin =**  
 $(\text{Operating Profit} / \text{Total Revenue}) \times 100$

**Friendly.AI Operating Profit Margin =**  
 $(29,780 / 150,000) \times 100 \Rightarrow 19.8\%$

# Working Capital Model

Friendly.AI Balance Sheet	
<b>Assets</b>	
<b>Current Assets</b>	
Cash in Bank	\$ 50,000
<b>Total Current Assets</b>	\$ 50,000
<b>Fixed Assets</b>	
Machinery & Equipment (laptops, chairs, office equipment)	\$ 4,300
Other	-
<b>Total Fixed Assets</b>	\$ 4,300
<b>Other Assets</b>	
Patents	\$ 500
Software assets	500
<b>Total Other Assets</b>	\$ 1,000
<b>TOTAL ASSETS</b>	\$ 55,300
<b>Liabilities &amp; Net Worth</b>	
<b>Current Liabilities</b>	
Taxes Payable	700
Current Portion Long-term Debt	250
<b>Total Current Liabilities</b>	\$ 950
<b>Long-term Liabilities</b>	
Bank Loans Payable (> 12 months)	\$ 15,000
Less: Short-term Portion	250
<b>Total Long-Term Liabilities</b>	\$ 15,250
<b>TOTAL LIABILITIES</b>	\$ 16,200
<b>Owners' Equity (Net Worth)</b>	\$ 39,100
<b>TOTAL LIABILITIES &amp; NET WORTH</b>	\$ 55,300



# Financing Model

## Friendly.AI Sources of Capital

Owners' Investment (name and percent ownership)	
Yingquan's investments (CEO/Chief Engineer)	\$ 25,000
Michael's Investment (Chief Product Designer)	25,000
<b>Total Investment</b>	\$ 50,000
Bank Loans	
Bank 1	\$ 15,000
<b>Total Bank Loans</b>	\$ 15,000

## Friendly.AI Summary Statement

Sources of Capital	
Owners' and other investments	\$ 50,000
Bank loans	15,000
<b>Total Source of Funds</b>	\$ 65,000
Startup Expenses	
Capital Equipment	2,900
Administration and Travel Expenses	3,500
Advertising and Social Media Expenses	3,000
Other Expenses	200
Contingency Fund	5,000
Working Capital	3,000
<b>Total Startup Expenses</b>	\$ 17,600

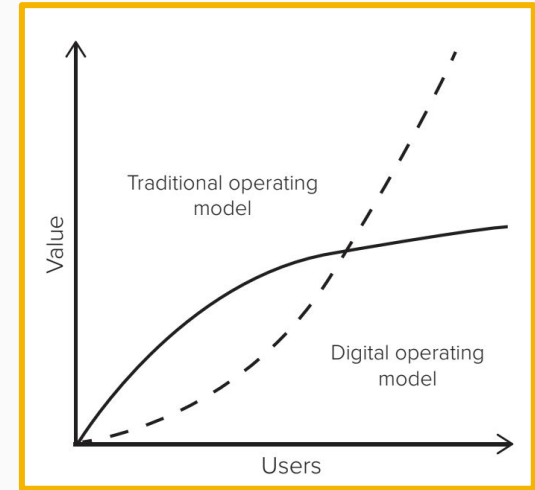
## Friendly.AI Startup Expenses

Capital Equipment List	
Laptop	\$ 2,000
Office chairs	400
Equipment (i.e. noise cancelling headphones)	500
<b>Total Capital Equipment</b>	\$ 2,900
Administration and Traveling Expenses	
Licensing	\$ 500
Traveling	1,300
Softwares	500
Research cost	1,000
Other	200
<b>Total Administration and Travel Expenses</b>	\$ 3,500
Advertising and Social Media Expenses	
Traditional Advertising	\$ 1,500
Social Media - Influencer Sponsorships	1,500
Other/additional categories	-
<b>Total Advertising and Social Media Expenses</b>	\$ 3,000
Other Expenses	
Other expense 1 (Team Happy Hour)	\$ 200
<b>Total Other Expenses</b>	\$ 200
Reserve for Contingencies	
	\$ 5,000
Working Capital	
	\$ 3,000

### **3. Scalability and Viability of the AI Operating Model**

# Scalability Analysis

- **Friendly.AI** is a very scalable solution give that smartphones are ubiquitous these days. The application was designed with *viral/explosive* growth in mind. Our belief is that a solution reaches **product-market fit** only when the majority of customers (>50%) use the product daily.
- **Scalability** is all about creating value for customers such that if the number of users increase exponentially, then so does the amount of value created. At the same time that users scale, it's very important that the human and financial resources are kept at bay and not scaling exponentially too. This is very important and the hallmarks of a truly **digital operating model**.
- Moreover by utilizing technologies that are *elastic* such as cloud computing services (i.e. Amazon Web Services, Google Cloud, etc.), the infrastructure would be able to scale alongside the user base.
- Lastly with respect to scaling, the team has to think about **automation** from the start. **Only through automating processes and modes of delivery will the company really scale**. The code has to be automated in a way such that it's deployed to production easily. Moreover, the app will be tested exhaustively for bugs and errors in an automated way. Lastly, design templates will be utilized to streamline all marketing/client-facing materials. All this will lead to a **whole product solution**!



(Source: [Digital, Data, and Design Institute; Harvard](#))

# Viability and Sustainability Analysis

- This is a very viable business in that there are not that many apps like it in the market. Moreover even if there are apps with **first-mover advantage**, the **Friendly.AI** team is focused on delivering an experience that will truly **delight** customers!
- A viable business must truly satisfy a deep need for customers; otherwise, it's not going to be a sustainable business that brings in revenue for the long term. From all the research that I've done + the customer segmentation work, it's clear that this problem w.r.t. **loneliness** is not going away soon. It's probably being exacerbated given the way that the world is trending.
- The key point is to iterate fast and build a customer base who really **LOVE the product**. It's better to have 10 people who love the product than 100 people who only like the product.
- In terms of **sustainability**, the team cares a lot about the **people**, the **environment** and our **society** at large. This app is ultimately a social good and seeks to serve customers first!
- **By serving customers and generating profits, this will enable the team to then invest the earnings back into local communities and make an impact on society at large.** It's important to support volunteering and community events that bring people out the house and into the real world!
- The big idea to all this is to give people an outlet to connect, to give people opportunities to feel heard, seen, and respected. When I did my customer segmentation, the biggest challenge I observed was the people felt like they *no hope*.
- This is something that the **Friendly.AI** team believes can be changed. Through our application, we will provide **hope** and **empower** people so that they will have a more positive and more optimistic outlook on life!