

# PosterBot – Business Project crowdfunding proposal

CP2405/CP5635: Collective Intelligence and Entrepreneurship

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## Contents

The Problem Statement.....	2
The Proposed Solution.....	3
AI model and Collective Intelligence .....	3
Crowdsourcing.....	3
Minimum Viable Product (MVP) .....	4
Prototype (lo-fi) .....	5
SWOT Analysis .....	8
Crowdfunding Campaign.....	8
Business Model.....	10
Key Partners.....	10
Key activities .....	11
Value proposition .....	13
Customer Relationship.....	14
Customer Segment.....	14
Key Resources .....	15
Distribution Channel.....	16
Cost Structure.....	17
Revenue Stream .....	18
Conclusion and Future Prospect .....	19

## **CP2405/CP5635 Crowdfunding Business Proposal – Poster Bot**

### **The Problem Statement**

Getting personalised artwork produced can be time consuming and expensive. As well as the cost of producing the artwork itself, the costs of creating a physical product using that artwork can be expensive. Not only this but finding the perfect posters to decorate your space that fit your personal style, taste, and interests can be impossible.

Our start up business, PosterBot, allows users to generate artwork that perfectly fits their personal style. Based around the emerging collective intelligence technology of AI bots used to generate digital images from language descriptions, our business uses this technology to generate images for them be put on posters. For our customers. We also allow users to specify a string of text to be included in their design, so that each artwork can be personalised to the users' specific tastes or requirements.

Once the user inputs a prompt, PosterBot generates 5 designs from which the user can select from. Once the user selects a design they like, they can see what their design would look like on a variety of different poster sizes and finishes.

The user is then given a cost for each item and the option to purchase. If the user purchases the item, it is created by the business and sent to the customer.

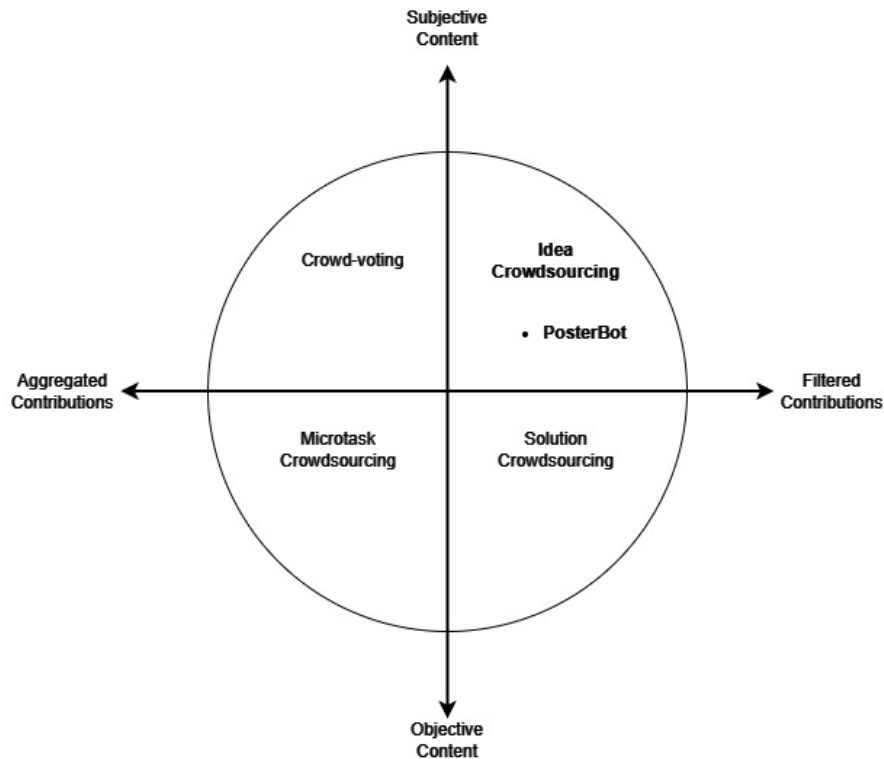
## **The Proposed Solution**

### **AI model and Collective Intelligence**

Our AI model is designed for generating related artworks from text. From any given text, PosterBot will generate multiple artworks in various artstyles, as to give the user multiple options to choose from. This AI model will be trained through collective intelligence technologies, by using a large dataset of images and corresponding descriptions. We will source this dataset by collecting images through various channels such as searching the Internet or crowdsourcing. The dataset should include images of entities such as objects, creatures or sceneries and their corresponding descriptions such as identity, perspective, action, state, texture, color, material, distance, and other related parameters. This will contribute to the AI's understanding of the objects, creatures, sceneries, and relationship between entities. Additionally, the dataset should include artworks of different art styles and corresponding descriptions, to contribute to the AI's understanding of various art styles.

### **Crowdsourcing**

Crowdsourcing is required in order to build the dataset that will be used to train our AI model. We can achieve this by crawling the Internet and collecting images from websites, social and image libraries. Additionally, we will ask people to images and descriptions on our website, we can direct more people to our website through social media. The images and descriptions submitted through this manner will further be filtered to ensure the accuracy of the dataset, only clear images will be added to the dataset and the descriptions will be rewritten if necessary. Since submission of images and their corresponding descriptions is open-ended, our crowdsourcing model falls in the idea crowdsourcing category on the crowdsourcing canvas.

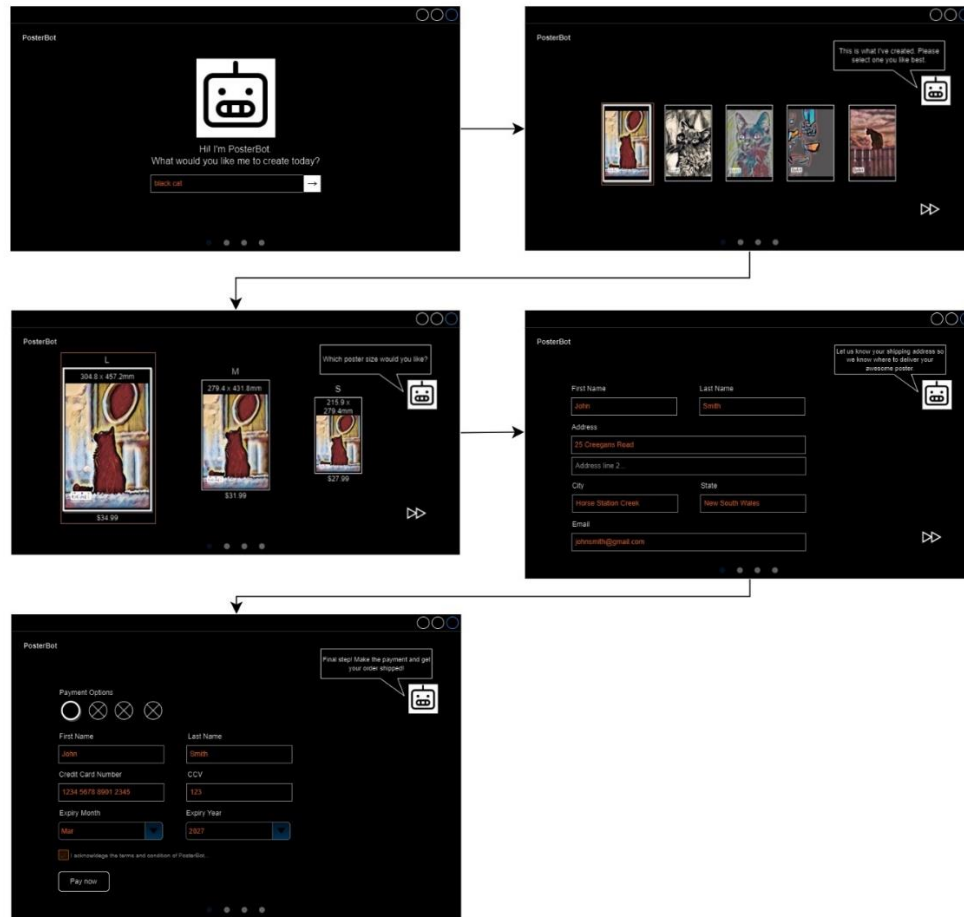


**Figure 1: Crowdsourcing Canvas**

### **Minimum Viable Product (MVP)**

The minimum viable product (MVP) of our project is a minimalistic website where the customers can order custom AI-generated posters. The customers can enter a prompt on the website, and our AI, PosterBot will generate 5 custom artworks with different art styles based on the prompt that the customer input. From the 5 artworks generated, the customer can select whichever one they prefer, and order high quality poster of the chosen artwork. The poster will be available in (S)mall 215.9 x 279.4mm, (M)edium 279.4 x 431.8mm and (L)arge 304.8 x 457.2mm.

## Prototype (lo-fi)



**Figure 2: Prototype of PosterBot Website**

Figure 2 describes how the users can interact with PosterBot website. The first page is the home page where the users land on when they first visit the website. The home page features a greeting message and a text box where the user can input a prompt to be created into artworks. The submit button on the home page will take the user to the artwork selection page where the user will be presented with 5 AI generated artworks. The user can select their preferred artwork and click the next button to proceed. The third page is the poster size selection page where the user can select the size of the poster that they want to order. This page shows the exact dimensions and price of the posters. The next page is the order form where the user can fill out their details such as name, address and contact information. The final page is the payment form where the user can select a payment option and make the payment. Figures 3, 4, 5, 6 and 7 describe the basic structure of each web page in detail.

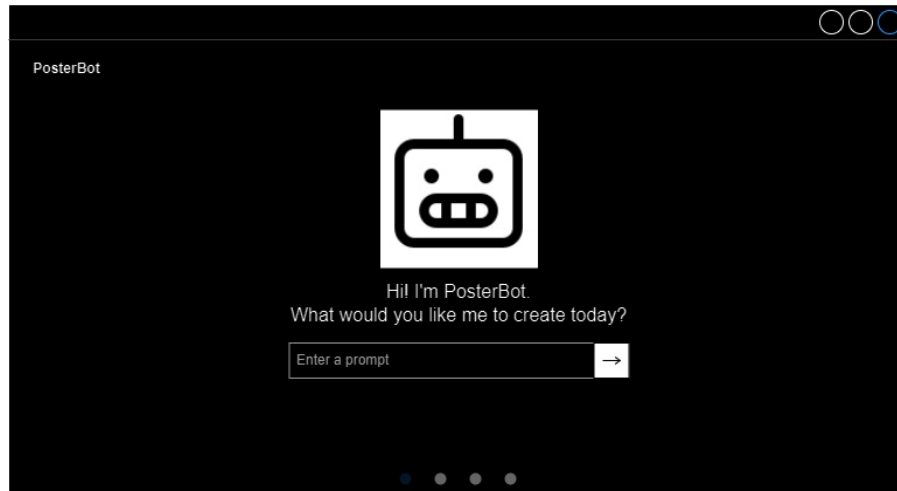


Figure 3: Home Page

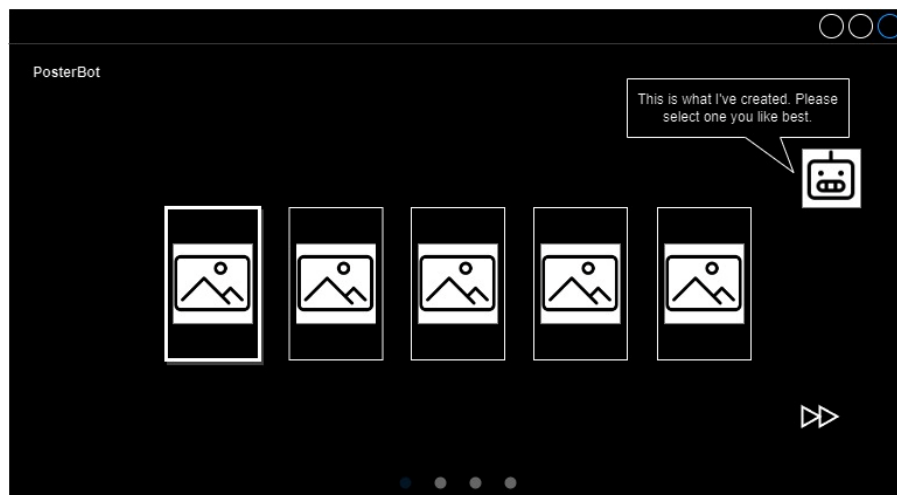


Figure 4: Artwork Selection Page

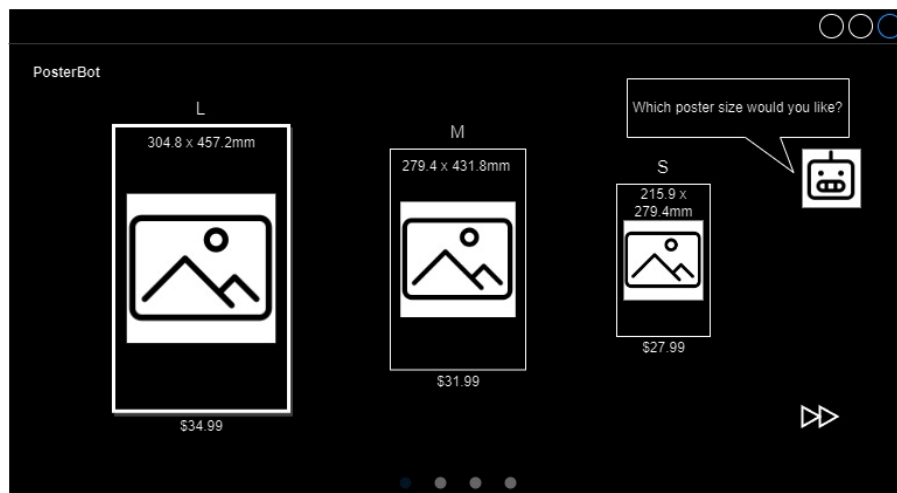
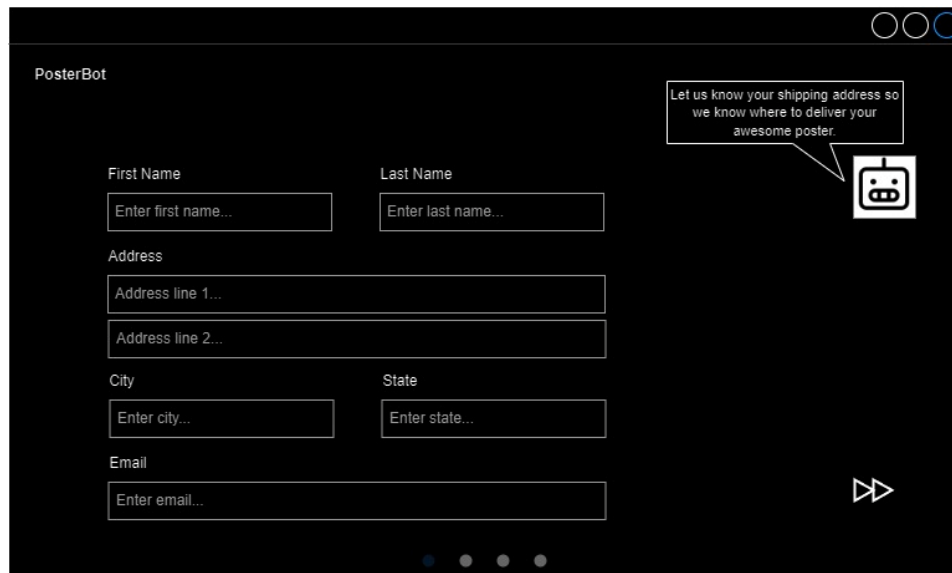


Figure 5: Poster Size Selection Page



PosterBot

Let us know your shipping address so we know where to deliver your awesome poster.

First Name: Enter first name...

Last Name: Enter last name...

Address: Address line 1..., Address line 2...

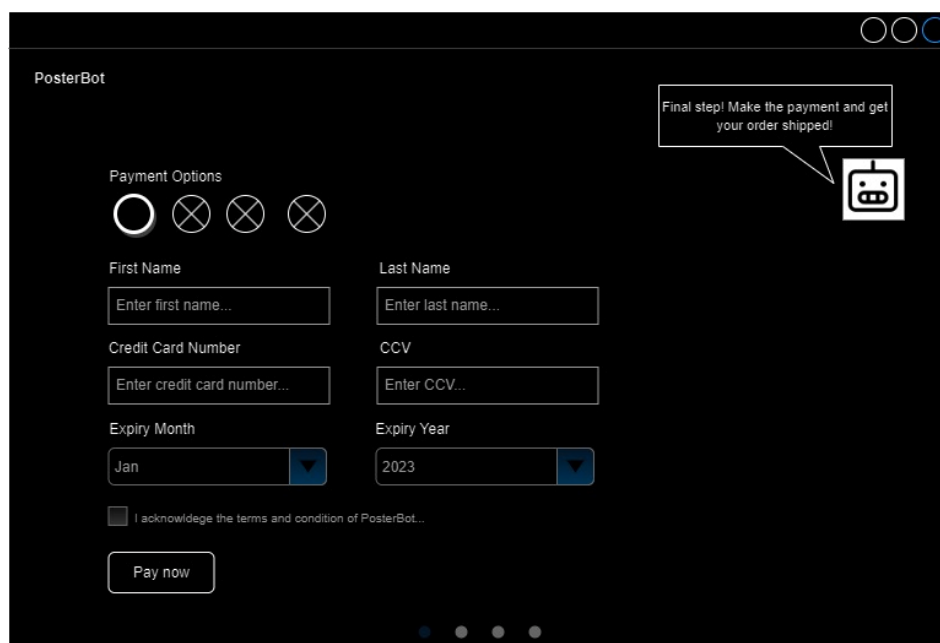
City: Enter city... State: Enter state...

Email: Enter email...

Navigation: Four dots, with the first dot highlighted.

Next button: A double right arrow icon.

Figure 6: Order Form



PosterBot

Final step! Make the payment and get your order shipped!

Payment Options: Four radio buttons, the first of which is selected.

First Name: Enter first name...

Last Name: Enter last name...

Credit Card Number: Enter credit card number...

CCV: Enter CCV...

Expiry Month: Jan (dropdown menu)

Expiry Year: 2023 (dropdown menu)

I acknowledge the terms and condition of PosterBot...

Pay now button

Navigation: Four dots, with the first dot highlighted.

Figure 7: Payment Form



## SWOT Analysis

<b>Strengths</b> <ul style="list-style-type: none"><li>• Efficiency and Rapid Generation of Diverse Designs</li><li>• AI Technological Innovation with Unique Designs</li><li>• Customization for Customer Preferences</li><li>• High Cost-effectiveness and Affordability</li><li>• Strong Entrepreneurial Team</li></ul>	<b>Weaknesses</b> <ul style="list-style-type: none"><li>• High Initial Training Costs for AI Model</li><li>• Limited Initial Funding</li><li>• Intense Market Competition</li><li>• High Acceptance Among Youth with Limited Purchasing Power</li></ul>
<b>Opportunities</b> <ul style="list-style-type: none"><li>• Vast Market Scope, Low Cost: Diverse sectors, affordable AI designs</li><li>• Low Maintenance Post-Launch</li><li>• Diverse Revenue Streams: Ad income from traffic</li></ul>	<b>Threats</b> <ul style="list-style-type: none"><li>• Intellectual property disputes may arise concerning algorithmic data model</li><li>• Rapid Tech Changes, Vulnerable to Substitution</li><li>• Aesthetic Fatigue, Customer Attrition</li><li>• Unpredictable AI content might trigger moral or legal disputes</li></ul>

## Crowdfunding Campaign

### Our Crowdfunding campaign title:

“PosterBot AI: Personalized Artworks your way”

### Campaign Outline:

We proudly introduce our venture, "PosterBot AI: Personalized Artworks by PosterBot AI." We are an online platform dedicated to crafting exclusive AI-customized posters, tailoring each Artwork to our valued customers. Currently in the startup phase, our dedicated team of five is immersed in a three-month product development journey, encompassing two months of intensive creation and a final month dedicated to thorough product testing. We anticipate our market entry and the commencement of operations in the fourth month. With your invaluable support, we strive to make this vision a reality.

## **Crowdfunding Platform:**

### **Kickstarter**

Our chosen crowdfunding platform is Kickstarter, renowned for nurturing innovative projects and connecting passionate backers with groundbreaking ideas.

## **Crowdfunding Goal:**

### **AUD 50,000**

We aim to raise AUD 50,000 to fuel the evolution of Poster Bot AI and ensure its successful launch.

## **Perks for Backers:**

### **\$20-39 donator**

- Receive a small, customised AI-generated poster as a token of our appreciation.
- Next Purchase Half-Price Coupon: Delight in a 30% discount on your inaugural poster purchase.

### **\$40 Plus donator**

- Receive a large, customised classic AI-generated poster as a token of our appreciation.
- Next Purchase Half-Price Coupon: Delight in a 40% discount on your inaugural poster purchase.

## **Crowdfunding Video Link**

<https://youtu.be/8DRnSejewSM>

## **Business Model**

### **Key Partners**

Our value proposition requires the following key partners:

- AWS (Web platform, Server)
- Brother (Printing press)
- Accenture (AI tool supplier)
- Google ads (Marketing, social media)
- Australia Post (Distribution Centre)
- Mastercard, Visa (Payment method)
- Backers/Supporters (Campaign)
- Crowd (Crowdsourcing photos)
- Network Security (cyber partners)

### **Motivations Behind Our Partnerships**

Our business partners have different motivations for offering their services and support.

The partners that are motivated by making profit include:

- AWS
- Brother (Printing Press)
- Google Ads
- Australia Post
- Mastercard, Visa
- Cyber partners
- Accenture

The partners that are motivated by their interests and trends include:

- Accenture
- Campaign Backers/Supporters
- Crowd (Crowdsourcing of photos)

Backers and supporters of our business campaign are also motivated by the perks we offer.

## **Key activities**

Our value proposition requires the following key activities:

- **AWS Platform/Server Management and Development:**
  - Ensuring seamless operation of our AI-powered poster customization service through expert management and development on the AWS cloud platform.
- **Website Operations:**
  - Optimizing our user-friendly website interface and allowing customers to effortlessly interact with the AI poster customization tool will help in enhancing their experience.
- **Google Ad Platform Management and Strategic Analysis:**
  - Skillfully managing and refining our presence on the Google Ad platform, conducting in-depth analysis of ad strategies, and enhancing ad conversion rates to maximize customer engagement.
- **AI Tool Maintenance:**
  - i. **AI poster Sale Support:**

Engage with users and efficiently resolve their issues, ensuring a seamless experience through effective interaction.
  - ii. **AI Technology Issue Management:**

Aggregate technical concerns reported by users on the web and collaborate with AI partner companies to address and rectify these issues proactively.
- **Dedication to Customer Confidentiality:**
  - Making substantial investments to safeguard customer confidential information, instilling trust and confidence in our commitment to customer privacy.

- **Strategic Media Advertising:**
  - Strategically promoting our AI-generated custom poster service through targeted media campaigns, expanding customer awareness and reach.
- **Collection of Cloud Photo Data:**
  - Curating a comprehensive library of cloud-based photo data to empower customers with an extensive array of visual assets for their personalized poster creations.
- **Strengthening Supplier Relationships in the Supply Chain:**
  - Sustaining relationships with key suppliers in our supply chain, such as Brother Printing Company, credit card companies, and postal services, to ensure efficient and reliable service delivery.

**The most important activities in distribution channels, customer relationships, revenue streams**

**Include:**

- **Regarding the distribution channel:**
  - **maintaining strong relationships with Aus Post** to ensure that transportation logistics run smoothly.
- **In the realm of customer relationships:**
  - **Addressing AI tool sales support and issues** is the most important activity in terms of our customer relationships as we provide excellent customer service, collecting customer issues and providing expert technical solutions, making sure our customers are more tightly bound with us.
- **In terms of revenue streams**
  - **our website maintenance**, making sure our website has strong usability and minimal errors and sustainability collaborations with AI business partners for

updates and upgrades to the AI tool to ensure our creative posters remain up to date with the current trend, and is appealing for our customers.

## **Value proposition**

### **The core value delivered to the customer includes:**

- Experiencing Fun Through Creative AI Tools:  
Users can enjoy a unique sense of enjoyment while creating posters using the AI tool.
  
- Having Personalized and Cool AI Artworks:  
Users can possess personalized and impressive artworks generated using cutting-edge technology.
  
- Distinctive Customized AI Poster Art:  
Users can own AI-generated posters that are exclusively tailored to their preferences.
  
- Following Trendy and Youthful Labels:  
Providing users with an opportunity to pursue fashion and youthful experiences.
  
- Visual Enjoyment of AI Artworks:  
Offering users an artistic enjoyment that traditional paintings cannot provide.

Our AI poster artworks will satisfy the needs of the following customers:

- Young people who are eager to try new things.
- Young individuals looking to create using AI tools.
- Those who wish to showcase artwork in their social circles and express their unique taste.
- Collectors of AI artwork enthusiasts

- People seeking to purchase posters within a limited budget.
- Individuals desiring to adorn their surroundings with stylish AI artworks.

## **Customer Relationship**

### **What relationships do customers expect and how will these be maintained?**

Consumers would expect a trusting and fair relationship to be established with this business model. For example, consumers would expect the posters generated to be of high physical quality, as well as the AI-generated art be of high artistic quality.

In order to maintain trust with consumers, the business would have to invest in high-quality AI generation as well as poster production to ensure that consumers feel as though they are receiving a high-quality product, both in terms of physical and artistic value.

Ensuring high quality customer relations is also a high priority of the business. Customer relations refers to the methods the company will use to engage with and improve the customer experience. To maintain customer relations, resources will be dedicated to the establishment and maintenance of a customer care team available to assist with customer enquiries and complaints, as well as social media pages maintained to interact with consumers.

## **Customer Segment**

### **Which customer segments is the business creating value for, and which customer segment is most important for the business?**

The business appeals to those looking for personalised artwork for use in gifting to others or for decorating a personalised space. Since the business also incorporates elements of AI, the idea may also appeal to individuals interested in technology or involved with the internet.

Initially, the most important market segment for the business would be young people interested in technology. Additional market segments that could be of importance in the future include:

### **B2B (Business to Business) Clients such as offices or corporations**

The business could appeal to office workers or workplaces looking to personalize their space. Since our bot also incorporates the use of text, it can be used to generate specific messages or comments that can be added to incorporate specific business details into the image generated (Business logos, important messages, location or branch specific information, etc.)

### **Educational clients (Schools, universities)**

The business could appeal to educational clients for the fast and high quality generation of posters. As schools and universities often have many events that require specific information, posters must be created for these events which can become a time consuming and laborious task. Our business can simplify this task by making the generation of these posters more effective.

The use of AI-generated artwork would usually not be effective as most AI models cannot generate specific information requirements. The inclusion of these features with our AI model means it can be used to generate function specific information relevant to these clients.

## **Key Resources**

The key resources that our value proposition requires are:

### **Skilled Team**

- Web developers, who will maintain our user-friendly platform and AI poster customization tool.
- Marketing personnel for managing and refining Ad strategies on Google Ads platform to drive customer engagement.



- Casual workers who will take part in packaging of the posters and distributing them to Aust Post.

### **Computing Infrastructure (Servers)**

- AWS Cloud Platform and Server Infrastructure.

Resources that are important in:

- i. Distribution Channels:
  - Physical distribution infrastructure (warehouses, transportation).
  - Digital platforms, social media for online reach. (Facebook, Instagram, TikTok)
  - AWS Systems Manager Inventory to manage systems to optimize stock levels (number of posters to be printed, sizes and customizations) and fulfill orders efficiently to Aust Post.
- ii. Customer Relationships:
  - Customer support team to address inquiries, issues, and building relationships with customers.
  - AWS Cloud CRM, Customer relationship management (CRM) to track interactions, customizations, and preferences from customers.
  - Feedback from questions, polls, hashtags in social media to gather insights and improve customer experience.
- iii. Revenue Streams:
  - Online Payment processing systems (Mastercard and Visa) to facilitate transactions.

### **Distribution Channel**

Our customers would want to be reached through the following channel:

#### **Social Media Networks**

- Many of our customers will be the young generation, social media platforms like, Facebook, Instagram, TikTok, Threads, Pinterest and Reddit would be ideal.
- Social media marketing will be most effective for the business due to the relatively low costs associated as well as the potential for wide marketing distribution.

The costs of using social media can vary widely. Organic posting is generally free, but to maximize reach, engagement, and targeting, we can consider investing in:

- Paid Advertising such as sponsored posts on Facebook, promoted tweets, and Instagram ads. Costs depend on factors like audience size, targeting, and ad placement.
- Paying content creators and influencers to promote our posters.

To integrate social media into our business and customers' routines we need to:

- Consistent Posting of new custom AI generated posters, stick to a consistent posting schedule. This will build anticipation and will ensure that our audience stays engaged.
- Engagement: Respond promptly to comments, messages, and interactions on Facebook and Instagram. Engage with our audience by asking questions, conducting polls, on Facebook, TikTok and Instagram stories.
- User-Generated Content: Encourage customers to share their buying experiences from our AI custom generated designs by using a dedicated hashtag #PosterBotAI or by tagging our profile.

## Cost Structure

The largest cost to the business will likely be the development and maintenance of the AI software, as this will have to be outsourced. Additionally, our business requires various resources and activities for establishment and operation. The following are the estimated cost of each resource or activity regarding the business operations:

- Development of the AI model: **\$45,000 upfront**
- AI tool maintenance: **\$25,000 per year**
- Web server / hosting: **\$20-60 per year**
- Advertisement / marketing: **\$500-3000 per month**
- Sales, customer support and other business operations (employees): **\$30,000 per month**

The pricing of the posters and the cost of production for each poster are as follows:

- Price: **\$34.99 (Large), \$31.99(Medium), \$27.99(Small)**
- Production Cost: **\$4.5(Large), \$3.7(Medium), \$2.9(Small)**

## Revenue Stream

The main value our customers would be willing to pay is the ability to produce multiple iterations of custom artworks for a low cost in a shorter time, as compared to more traditional forms of generating custom artworks. We will be operating our business with online payments since a one-time payment made when posters are purchased from the online platform would be most beneficial and user friendly for consumers. All sales would be made online via:

- Credit cards
- Debit cards
- Digital wallets
- Other online payment gateways

The business would primarily receive income through the sale of posters on the business's website. The projected revenue and sales of our business based on the current market size are as follows:

- **\$2.5 million** annual revenue
- **6700** average monthly sales

With reference to the estimated cost and projected revenue, we can determine the profitability of the business:

- Average printing cost of a poster: **\$3.7**
- Average price of a poster: **\$31.66**
- Average cost of the artwork generation (cost of AI tool for each poster): **\$1**
- Average profit of a poster:  **$\$31.66 - (\$3.7 + \$1) = \$26.96$**
- Profit margin of a poster: **85%**

## **Conclusion and Future Prospect**

For our business, we propose PosterBot, an AI-powered artwork generator that will create customized wall art / posters. Our aim is to provide an alternative to artist designed custom artworks at a fraction of the cost and delivery time. The proposed solution utilizes emerging AI and collective intelligence technologies to build an AI model that can generate artworks based on the input text. During the product development, we followed the MVP approach and started with a baseline product that fulfils only essential features. Our MVP includes an AI model that is capable of generating artworks from text, and a website where the customers can create, choose and order customized posters.

This leaves us with many potential features that can be added once the business gets going. We currently offer the poster in 3 sizes with the same finish types, but in the future, we can expand our business by offering more sizes, finish types and stock types. Likewise, we can also offer products other than posters such as t-shirts, mugs, stickers, and phone cases. As of now, there is option to save the artwork that the customer has chosen, therefore, the customers cannot reorder the same artwork again. Having a feature that allows the customer to save the artworks that they like could be beneficial for the business and this is something we should be looking into in the future.