Deliverable F

Date: 6/14/2020

GNG 2101

Presented to:
Professor Emmanuel Bouendeu

By:
Group Z11

Daniel Sui	300059600
Shivam Syal	300065225
Jacob Recoskie	300108518
Parva Pathak	300129609
Viktor Stojanovic	300137255

Table of Contents

Introduction

This deliverable focuses on identifying and choosing a potential business model that would be well suited to commercializing the team's soldering online course and developing a business model canvas. At the end describe the core prerequisites that we made during the process of making the canvas and choosing the business model.

Business model type: Freemium

We believe that the Freemium business model is the most well-suited model for our product. We chose this model because the main portion of the online workshop is a free-to-use course that's accessible to all users, so there is no cost to the user, but they have the option to buy an additional upgrade, being a physical soldering kit, to enhance the experience. The online course will contain all of the necessary information in basic soldering, so any users who choose not to buy the optional kit aren't missing anything, instead, the users who purchase the additional kit are upgrading their experience to further their learning. The only difference between our product and a standard freemium model, such Linkedin and Spotify (who offer a free service that can be improved with an upgrade) is that we don't profit from those who purchase the additional kit, as they buy it themselves from a third party, however, from the user's perspective, this is just like any other freemium based business.

Business model canvas

<table>
<tr>
<td rowspan="2">Key partners

Unity
Weebly
Makers lab
Github
CEED</td>
<td>Key Activity

Videos
Website development
Game development</td>
<td rowspan="2">Value proposition

Teach Soldering
provide practice
Share customer opinion;</td>
<td>Relationship

Uottawa students</td>
<td rowspan="2">Customer Segments

Students
Engineers</td>
</tr>
<tr>
<td>Key Resources

Internet
Hosting website service
Game Development tool
Soldering Information</td>
<td>Channels

Amazon
Weebly
Github</td>
</tr>
<tr>
<td colspan="2">Cost Structure

Web hosting</td>
<td colspan="3">Revenue Stream

Donations
Advertising</td>
</tr>
</table>

Validation board

1. Start with a customer hypothesis and a problem hypothesis

   Customer: Students who are required to take the course, without much spare money or time, that have a basic laptop or desktop, have internet access, and are able to understand and use computer programs.

   Problem: We aren't sure that we will have enough time to finish all the labs on time.

2. State all your core assumptions (e.g. everyone loves red)
   - (Student) Has access to PC and internet
     - It is feasible to assume most people have access to a PC.
   - (Student) Ability to receive information through the form of text and videos
     - It's feasible to assume that most users can understand and learn from an online course with text and video based learning.
   - (Dev) Whole course will take less than 90 minutes to complete on average.
     - It is feasible because the course will take about 70 minutes to complete and the labs will not be very long as there is only so much to explore while soldering in a simulation.
   - (Student) Ability to convert virtual skills into actual skills after completing the lab.
     - It is somewhat feasible because students can learn from watching videos and simulations but soldering is a very "hands-on" activity, but certain issues can arise if it's not clear enough for a beginner to understand.
   - (Student) Ability to look for help from different sources if problems are met
     - Most students already use external sources, like the internet, to better their understanding of any subject, so it is feasible to assume that students can find help from different sources when needed.
   - (Dev) Have enough time to construct 6 labs
     - It is somewhat feasible that we should be able to create 6 labs according to our project plan, but we haven't made any labs so far, so we don't yet have an entirely reliable way to measure our ability to complete them on time.

Assumption	Test plan	Success criterion	Usefulness	Risk level
We will be able to create 6 labs within the time frame. If six labs can not be made, we can not provide a full product, degrading our business.	Complete structures for the lab and get assets in place, then time how long 1 lab takes to make. (An overall time frame).	If after multiplying the time to make a lab by 6 is less than the time we are given, we will likely succeed.	This experiment cannot be done until we have begun working on our second prototype.	A medium-level risk level as getting the assets in place will allow us to set up a backup plan if the test plan fails.
Ability to convert virtual skills into actual skills after completing the lab.	Take a self test after a student has finished the course, and compare it with the actual soldering test which will be taken.	The user is able to comfortably soldering in real life with minimal practice after the course	This experiment will be extremely useful because the point of our lab is to have people be able to solder.	A medium-level risk: It is not likely for a student to get a good mark in the self test and fail the actual soldering test, but it would be time consuming to restructure the website.

Lifelong learning

We used our past knowledge of business models to help select the appropriate model for our soldering course. A business that stood out above the rest was Spotify, the way Spotify implements the freemium model is very effective in the sense of how it provides one a free option to listen to music, but also entices one to buy the premium service which provides many more features. We also explored amazon affiliate links as a possible method of monetization.

Conclusion

To summarize, choosing the freemium model provides accessibility to the lab while also providing the option to have a more thorough and in-depth experience. Through the business model canvas we have identified our main revenue streams to be donations and advertisements, but we are also exploring the idea of using the Amazon affiliate program for the purchase of the optional kit as an additional revenue stream. However, our priority is that these revenue streams will not affect the effectiveness of the lab and won't detract from the experience. Finally, after analyzing the riskiest assumptions, we concluded that completing the six labs on time, as well as ensuring a proper transfer of knowledge were both medium level risks that each provide unique obstacles to overcome. Despite this, we are confident that we can properly complete our product, without these assumptions causing major issues in our development.