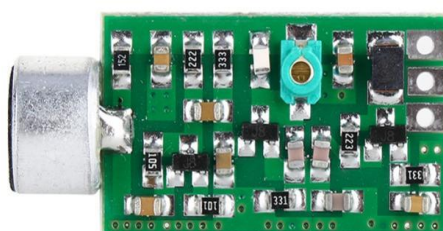


Modified microphone bug with speakers for people with speech problems



Business Plan

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1. Executive Summary

We are two graduate students currently attending Master studies at the Faculty of Mathematics in Belgrade. We are very enthusiastic, open minded and hardworking students.

Our interest in the field this business plan is about, actually started long before, when we had some school project of writing a computer application for people with speech disorders. This project and its business plan are actually just a continuing of this interest.

Our main goal is to make something that will make this world a better place, something that will help those who need help the most. With that thought in mind we started working on this project.

2. Business description & Vision

70 million people are estimated to have speech disorders worldwide. It is 0.75% of population. And even worse, estimates are that this number will grow until 2050. This is an information from the World Health Organization. Because of that, helping the people with speech disorders is one of the main topics to be addressed. We are trying to address this topic by offering a new revolutionary product that will help those people in their everyday activities. We are offering a product that merges one simple product (microphone) and one branch of machine science in expansion (artificial intelligence) combined with new medical results, into one new revolutionary product.

The idea of this product is to use a small modified microphone bug, both as input as output to detect internal speech, process the data and transfer to microphone speaker. In this way, user practically does nothing unusual and he feels like anyone else. This will reflect on his confidence, which will help him in other life situations.

The main goal we want to achieve is to make it easier to people with this speech problems, especially on daily basis, and to make communication faster. We hope that this product will go alive to make the world a better place to live.

We plan to develop a new product, product that has that virtue of constantly improving over the time.

Our vision is to break some new ground in this field, and to encourage others to follow our steps to do something better for this world, either for the people with speech problems, either in some other aspect in life, all with final purpose of helping those who need the help.

The executives of this project are Goran Milenković and Katarina Živković, both students on Mathematics Faculty in Belgrade.

3. Definition of Market

There are many solutions for helping people with speech problems like tables or some kind of monitors for sign communication or some tools in experimental phase like mind-reading machine from Facebook but none of them combines microphone bug with artificial intelligence technology. That is the reason we believe that this product is not just innovative but also revolutionary. Our target customers have different kind of speech problems and most of them are not satisfied with the current solutions. Having that in mind, we tried to adjust the specification of this product to them. We consider that market is lacking good solution with good technology, so we made this choice. With launching of this product to the market, we consider that at least 20% of our target customers will start using this product in 2 to 10 years, with potential of growing.

4. Description of products and services

Our product is a personal assistant to people with speech problems to help them communicate with their family, at work, while shopping at the supermarket. Microphone hardware is used to collect intercepted internal speech. After that, high-level artificial intelligence algorithms are executed connecting collected data with database words that can be on the speaker. Finally, as output, intercepted internal speech is on speaker. If this tool is used to communicate with computer, first need to be installed a software program on computer to process microphone bug output.

Our product serves as a speech tool with people, or as communication tool with computer. This second has great potential to spread this tool across the market. One of the main goals of artificial intelligence is to integrate people and computers and this product just gives that.

This product, with its services is competitive to other products on the market, because it gives people much more than standard products on the market. Our product can serve as standard microphone, but offers something new and useful. Our product picture can be seen in the Appendix part at the end of this document.

5. Organization and Management

Without proper organization it would be impossible to develop a product like this, where there are many companies and institutions involved in its development. All the work and people are organized in management staff, development staff, testing staff, marketing staff and researchers. Each of them has equal importance for a final product to work in specified way, and to be sold on the market. Communication between these groups of people is very important issue, so great deal of attention is given to this aspect.

Without management staff, there wouldn't be quality organization and therefore no quality product could be made. Management is the one responsible for putting it all together.

All the proprietorship goes to the managers of this project. We have partners in several companies and institutions which help us in development of this project: Faculty of mathematics (Belgrade), Faculty of Electrical Engineering (Belgrade), Swiss Federal Institute of Technology (Zurich), Braingineers (Amsterdam), German Autolabs (Berlin).

Key managers on this project are Goran Milenković and Katarina Živković both students on Mathematics Faculty in Belgrade.

6. Marketing and Sales strategy

Without marketing this product wouldn't get out of the boundaries of companies that made it. With quality marketing we can enable this product to get out to the market, so many more people could find about it. With more people that know about the product, greater the sale rate will be.

Our plan was to advertise and promote this product in specialized media, that is used by our target group – people with speech problems. By contacting organizations that are gathering our target group, we can make a large dial of marketing. Of course, internet marketing is also going to be represented. By going to places such as conferences and by organizing workshops we could promote our product.

As for a pricing, this product is going to be as affordable to people, as it can be, having in mind that it uses some of the advance technics. The price of the product must cover expenses made in development process. We hope that over the time, our product will become more affordable by people, when this technology that is used becomes cheaper.

Our plan is to make this available not only to those who are richer, but to all people who actually need this product. We will organize some promotions, where the luckiest and the poorest could get this product for free.

7. Financial Management

Development cost is given in the next table:

	Amount	Price	Total	Risk	Total with risk
Microphone production	1000	100€	100000€	20.00%	120000€
Speaker production	1000	5€	5000€	20.00%	6000€
Software production	1000	100€	100000€	25.00%	125000€
Other hardware production	1000	10€	10000€	20.00%	12000€
TOTAL					263000€

Marketing cost is given in the next table:

	Amount	Price	Total	Risk	Total with risk
Advertisement in media	20	5000€	100000€	5.00%	105000€
Advertisement by website	3	1000€	3000€	0.00%	3000€
Promotional material	1000	10€	10000€	0.00%	10000€
Marketing staff	10	1200€	12000€	0.00%	12000€
TOTAL					130000€

This gives a total cost of 393.000 €

8. Appendix



Picture 1: Our final product