



# POLITECNICO MILANO 1863

Team 16 Final Report

High Tech Entrepreneurship – A.Y. 2020/21

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## **1 – Executive Summary**

Technology has completely changed and improved the life of millions of people around the world in the past 30 years: in fact, nowadays, with just a smartphone in your hand you can almost do everything, from ordering food and shopping to check your bank account, from skipping queues to get in touch with everyone from everywhere. Nevertheless, due to the high speed of these deep changes, many people have not got accustomed yet with all the features that modern technology provides, but rather they cannot use it properly and they are often victims of frequent scams and frauds.

It is common routine day for every one of us to see our parents, grand-parents and relatives struggling with this kind of issues and, consequently, spend time in teaching them and repeating many times the same procedures to correctly use their phones. Seeking a solution to this problem scalable for every needs, our team came up with the business idea of GuidU, a smartphone application that gives easy and immediate tutorials on how to properly use almost every phone's feature and application, from basic levels to the more advanced ones.

A distinctive characteristic of GuidU is entertainment and the “learn-by-playing” approach (already applied with success to other fields of learning): in fact, trivial and bare tutorials are already available online, but they are not enough to help properly senior people, while in our idea every lesson is immediately followed by a quick exercise in a “minigame” style through which the user can immediately practise what he/she has just memorized. In this way the people who are learning can test if they have understood correctly from the tutorial without any fear of mistake (e.g. they can practise in a sandbox environment of the application they want to discover), they can train themselves any time they want to better get accustomed and, above anything else, they can have fun and enjoy while learning. Engagement and fun are, in fact, the basis to guarantee a complete understanding of all the topics treated inside our app and to also create more easily a connection with the other users.

As described in following sections, the market in which we aim to enter is rapidly growing because of the exponential development of new technologies and the increasing percentage of alone over-60 people in Europe and modern Countries. Due to the complete originality of our idea, very few companies can be considered as our direct competitors, but we still have to face the indirect competition of other applications and organizations.

Finally, we are aware of the risk and challenges that can occur both in the initial and growing stages (as shown in the final chapter of this report), but we believe that our team's strong motivation will ensure the best results in providing the suitable solution to the issues and pains previously mentioned.

## 2 – The Team

### 2.1 – Team organization and roles

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### 2.2 – Why we are a winning team

Our team, being made up of students from different countries, has a high variety of background and skills that is necessary for a proper development of the project and, at the same time, eliminates any language barrier preventing us to enter firstly in the Italian market and then in the European and International ones.

We are all engineering students, with strong roots in programming, statistics and operative systems: our CPO, CDO and CTO are also skilled in software and app development and in data analysis. Although we are still enrolled in university courses, each one of us has already some working experience such as a simple stage or a steady job (CTO has already been a founder of a start-up). For these reasons some of us have already acquired competences in management, finance and other topics not strictly related to engineering.

We have backgrounds in events organization and volunteering as elder assistance or as school tutors (CEO and CDO are members of charity and service associations), experiences that give us important prerequisites for the accuracy of teaching a senior and for making our software application enjoyable.

The differences we have on these many common capabilities is the core point that makes us a versatile team, so that each one has the role that best fits himself but at the same time we all share the same vision and the internal cooperation is guaranteed since we aim to do our best to develop our idea.

### 3 – The Business Model

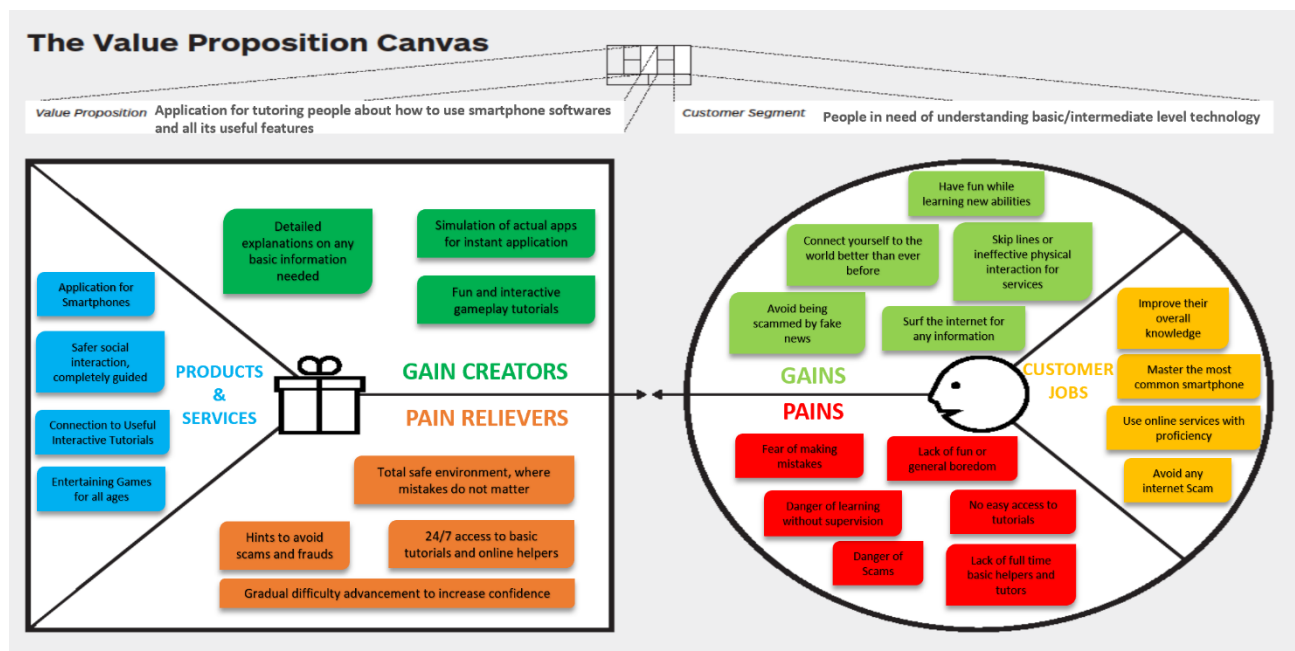
#### 3.1 – Values, Mission and Vision

**Values:** As a team we strongly believe in the disruptive power of modern technology, which is now able to improve our everyday life just with the features of a smartphone. In addition to that, we highly value a learning method experienced as a demanding challenge with a clear and funny interaction between teachers and pupils; these feelings increase more rapidly curiosity towards something new. That is why we have chosen fun and challenge as the core parts of our teaching app. We also strongly enforce the value of determination and self-reliability, because, according to us, everybody can find his own way out of every inconvenience as long as he is determined enough and believes in his own capabilities.

**Mission:** Our goal is referred both to the younger and elder generations: in fact, we aim to offer easy and interactive lessons to the second ones to get them accustomed in using their phones, and, at the same time, free the time younger people spent in teaching and repeating the same things to their older relatives. In this way also there will not be any technological barriers for interaction between different generations.

**Vision:** We think that our product will guarantee that many people will be more autonomous and conscious of the technology in their hands. However, it is our intention not to stop only with this kind of issues, but instead keep following the changes and improvements of new technologies, so that our application will be able to provide services also for higher complexity issues. Furthermore, we believe that our product will also contribute to create a new community for smartphone learners and users.

#### 3.2 – Value Proposition



A more detailed description of the Value Proposition Canvas is provided in **APPENDIX 3**.

#### 3.3 – Testing of the Value Proposition

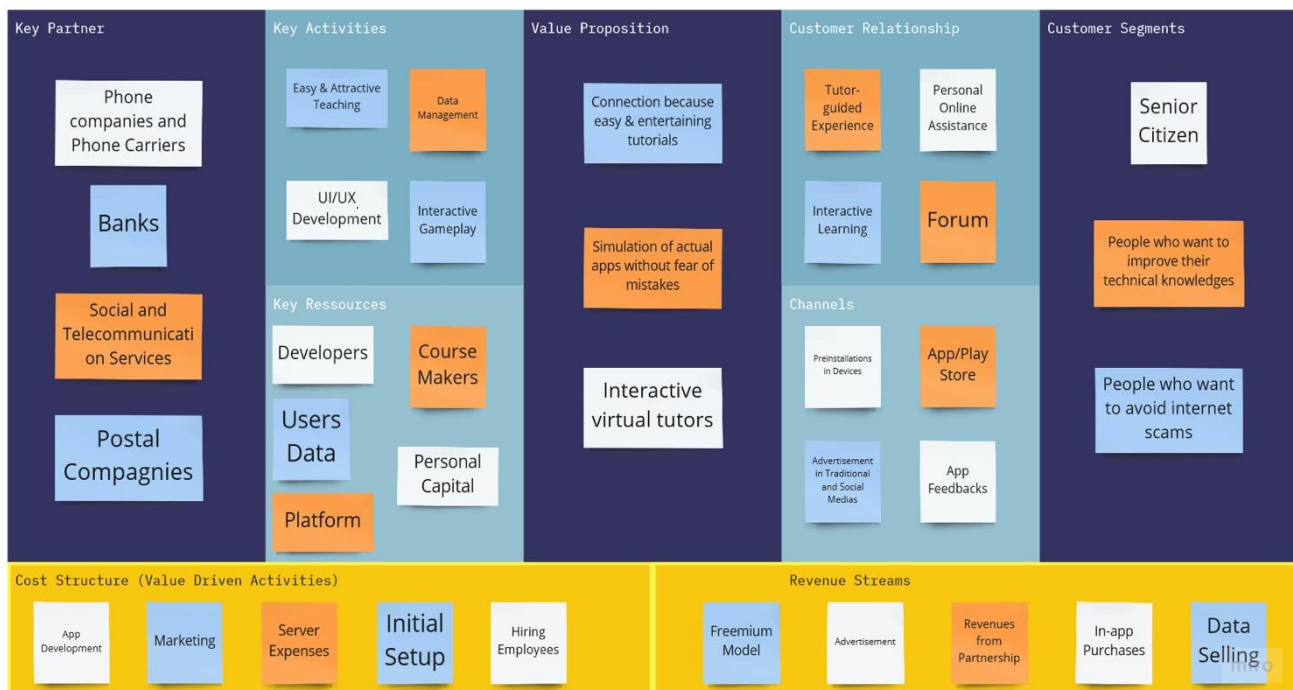
To accomplish a clearer analysis of our value proposition and avoid misleading results, we divided the testing analysis in three steps:

- Initial test on market and customers segment: we developed an online survey form and spread it among students, workers and older people until reaching more than 300 answers, which can be an initial set of people in order to develop our analysis.

Despite the partial limitation that most of the answers came from young students, we managed to collect a lot of useful data: more than 85% of elder relatives has a phone, usually an Android device (mainly Samsung, Huawei or Brondi), and they have common problems in using it, such as opening e-mails, set the alarm clock, surfing the web and even using the touch screen properly. To overcome these issues the main solution they adopt is to ask for help to relatives or other people. Even though less than 50% has been victim of an internet scam, the majority admitted that they would not be able to recognize one.

- Actual test on the Value Proposition: in order to correctly test our value proposition, we have developed our website with landing page and also two social accounts: Facebook and LinkedIn (All available at **APPENDIX 3**), which are the social networks with the audience nearest to our target customers, in terms of age. In addition, we developed a second survey (a “Buy a Feature” Test) to better estimate the most wanted features of our application. The results of the survey are available at **APPENDIX 3**.
- After-launch testing: to better match the needs of our users we plan to continue testing and monitoring our application through feedbacks and surveys. Specifically, we will study retention and engagement of our service and we will apply the Churn Analysis to better understand which issues prevent people from keep using our app. We will also apply the previous testing tools for every new feature and attempt to enter in a new market, to better analyse the environment response.

### 3.4 – Business Model Canvas



**Channels:** to deliver our product to customers we rely mainly on smartphones’ app stores and at the same time on a strong advertisement campaign through social and more traditional media (like local newspaper). We also aim to establish partnerships that can enforce our channels with customers: in fact, we will try to make alliances with phone carriers and companies to preinstall our application in their devices and make easier to obtain new users. For the after-sale part of communication with our customers we will use the feedback section of the stores to get directly reviews from them and for the same purpose also direct phone and social media contacts.

**Customers Relationships:** to stabilize and maintain the relationship with our customers we provide a tutor-guided experience in which every tutorial can be followed as the user want. Then, personal online assistance,

a chatroom for help and a vocal guide for every issue are reserved to premium users. The interactive and fun way of our learning method has also the purpose of make customers entertained while using our software. As a future objective we also aim to create a forum zone in our application so that users can be part of a community and share with others their experiences. We also see monthly “challenges and rewards” directed to app users as a good way to keep our customers even more engaged to the service we offer them.

**Cost Structure:** due to the low presence of competitors in our market we consider our business as a “value-driven” activity. Our main costs are related to the application development both for Android and iOS. In addition to these, there are also costs for marketing, advertisement (which will be both on social media and on traditional ones like newspaper, which is more common among our target users) and the salaries of employees. Moreover, we must consider the expenses for initial setup and registration of our start-up as an innovative company.

**Revenue Streams:** the versatility of our project guarantees various possible sources of income. Firstly, the payment of 6 €/months for premium features. To better satisfy our customers’ needs we also plan to realize different tiers of premium version, with different costs and features. Regarding those users who do not want to subscribe to a premium account we rely on three different revenue streams: users data selling, in-app advertisement and small in-app purchases (e.g., buy some special tutorials singularly or singular features). Finally, we estimate to get income also from partnerships, especially with the software companies for which we plan to realize custom detailed tutorials.

### 3.5 – Key Resources and Distinctive Capabilities

Intellectual Resources	Human Resources	Physical Resources	Financial Resources
Users Data Brand	App Developers Course Makers Data Officer	Office Space Computers Internet Connection Data Storage	Personal Capital Family & Friends Capital Business Angels

#### Distinctive Capabilities:

- Research and development capabilities to innovate new product and services (e.g., AI technology).
- Perceptions of product quality, reliability among customers.
- Ability to create immediate and easy tutorials.
- Experience in programming and application development.
- Managerial talent.
- Effective customer service.

## 4 – Industry Environment

### 4.1 – Market Analysis and Key Trends

Since the main target customers of GuidU are senior citizens, our business aims to operate in the market of Silver Economy and, in particular, to get the status of innovative start-up (in Italy called “Start-up Innovative”)

Between 2011 and 2020 the percentage of people in the aforementioned categories that regularly use internet increased dramatically: in the 65-74 group it has jumped from 13,8% to 47,3% and in the over-75 group it increased from 2,7% to 14,9% (ISTAT).

The main things these people do with an Internet connection are reading and sending emails, using social networks, reading the news, stay informed before elections or on social/political things. However, these data

should be contextualized in order to better understand why technology is becoming a part of seniors' lives: the population is getting older, the socio-medical needs are getting more and more complex and people have higher than ever expectancies about the service. In the area of socio-sanitary providers technology could help in creating new value propositions that respond to the users' needs, by bringing new tools to both users and providers and enhancing interaction between professionals.

In western countries old people living alone are continuously increasing: just in Europe the mean rate of seniors' growth is 2.9% between 2009 and 2019 and in Italy 2.5M of over-74 are completely alone. It is also expected to see a growth of the over-65 population to over 25% of all Italy inhabitants within 2030 (ISTAT).

Furthermore, this trend seems to keep growing and getting more and more important in society. Especially in these recent times, social distancing measures for elders that had little or even no interaction with other people imply severe consequences: older people are more likely to develop sleep problems and depression because of this, in addition to other aging-related condition such as Alzheimer. In this scenario technology could help prevent, or at least reduce, this kind of issues: tech is becoming an essential tool to overcome isolation and loneliness, both for auto-sufficient people and for those who are not.

ISTAT also says that more than 80% of over-60s used internet at least once in their life, but only 13% of seniors (retired people) use it regularly: their main use is for news, forecast, information about local events (i.e. news on construction in their city, info about taxes, etc.). Some seniors also use social networks extensively to find old friends or simply to chat with their relatives.

The main problem about all these aspects is the accessibility: only the more "tech savvy" seniors know how to benefit from technology and they represent only a small percentage of all elders. Technology should be a helpful tool for seniors, not an intimidating thing that scares and put them off. In recent times local associations started courses to improve the technological alphabetization of seniors, but they are not working because of the COVID situation and people must find them to participate (in some places they are not available at all).

## **4.2 – Competitors Analysis**

Due to the originality and peculiarity of our application, the market in which we aim to enter is not full of competitors and can still be considered, in an extended sense, a "blue ocean".

We identified as direct competitors Empowerji and Techboomers. The first one is an Indian start-up that realized the homonym smartphone application to assist people in using technology through simple tutorials; it is active only in local Indian market and it is covered by the main media of the Country: in fact, the software is distributed only in English or local languages. It does not have free version and it has different level of subscription with increasing per-month payment's levels. Despite not being at all inside our initial market, Empowerji has been included in our analysis since it is a software that offers a service to a similar customer segment of our application. The second one, Techboomers, is a website that provides free internet courses targeted for old people or inexperienced users. Although it started only in the American market, the company is very active on YouTube and Facebook social media, and its revenues come through affiliate advertisement.

On the side of indirect competitors, we collected under the general name "Tech Workshops" various technical courses organized by NPO or local association and present in almost every western country. They are generally free of charge and the lessons are held by tech teachers in presence (or through virtual classroom during COVID crisis).

In an extended sense, finally, we included among competitors two phone companies, Emporia and Brondi, both active in the Italian and European market, that realize smart devices to help seniors in getting

accustomed with their phones. Their products go from the essential old-style phones to easy and immediate version of smartphones (empowered by Android). This last kind of devices can be an obstacle to our business since it can relieve some of the issues our application work with. At the same time these two companies can also have a role as possible partners, as discussed in **APPENDIX 4**.

	GuidU	EmpowerJi	Emporia	Brondi	TechBoomers	Courses and workshops
Learn-by-playing approach	✓	✗	✗	✗	✗	Not common
Interactive learning method	✓	✗	✗	✗	✗	✓
Free product available	✓	✗	✗	✗	✓	Sometimes completely free
Already available on the market	✗	✓	✓	✓	✓	✓
Covered languages	Main European languages	English, Hindi, Marathi, Gujarati	Main European languages	Main European languages	English	Local language
Up-to date	✓	✗	✓	✓	✓	✓
Live assistance	✓	✓	✗	✗	✗	✓
Partnerships with existing corporates	Possible	✓	✓	✓	✓	Not common
Physical products	✗	✗	✓	✓	✗	✗
Anti-scam tutorials	✓	✗	✗	✗	✓	Maybe






### 4.3 – Competitive Advantages of Business Model

One of the main strong point of GuidU is the ability to provide more or less the same amount of services as its direct and indirect competitors (like tutorials, guided assistance and a non-steep learning curve) but at the same time there are many peculiarities that make our project unique.

First of all the learn-by-doing (or learn-by-playing) teaching method that manages to improve the interaction and the engagement of the user with the software and also improves the quality of learning and getting accustomed with the different tasks and technologies. In fact, guaranteeing interesting and interactive learning is the core point of our business and our main differential from other competitors in the market. Thanks to the “freemium” version approach we can also approach easily new customers that are interested in the idea but does not want to pay immediately for the service without at least a free trial before.

Eventually, despite being a smartphone application, we offer to premium customers also live and direct assistance and with the project of realizing an interactive vocal assistant, empowered by AI and able to better solve any possible issue of the users. In addition, we plan to activate an internal forum section we can move towards the creation of an actual community of users, a feature unique at all in our field.



	Online	Offline
Learn-By-Doing	 	
Classical learning methods		 

## 5 – Funding Requirements and Potential Sources of External Finance

As internally agreed, our team decided to start this business by investing 5.000 € each one of us, obtaining as initial funding budget a sum equal to 35.000 €.

According to the sketch of the financial situation (**APPENDIX 5**) 85.000 € is the total amount needed to cover the mismatch between Income and Expenses. This initial economic requirements has to be invested for setup (which involves also the payment of a lawyer/accountant to register our business as an “innovative startup”), to better test and analyze the market and to effectively start the development and afford marketing and server rental expenses. Thus, our aim is to collect the missing 50.000 € from friends, personal contacts and, especially, business angels willing to invest in our idea, since it is still in the pre-seed/seed phase.

Then, in the following years we plan to find resources to hire people that can enforce our development and marketing teams during our expansion in new markets (especially translators that can help us with foreign languages) and also get legal assistance. Our intention is to rely more on Venture Capitals to obtain external resources for these purposes: in fact, we are confident that by that time our company will be valuable and grown enough to get in contact with professional VCs and to ask for a loan larger than the one that a single business angel could provide us.

Furthermore, we plan to ask for incubator services for our initial development stages (from the first six month to even one year) in order to have a qualified assistance to properly develop our project and acquire the skills we still need for being “self sustainable”. More specifically, we believe that with the help of an incubator it could be easier to find companies which we can establish partnership with and which can be useful for us to reach and create an initial userbase. More details are provided in **APPENDIX 5**

## 6 – Roadmap

	SEMESTER 1 (AFTER FOUNDING)	SEMESTER 2	SEMESTER 3	SEMESTER 4	FUTURE
MILESTONES	Application Development Beta Launch	Launching on the Italian Market 1K Users step	Launching on the French, Spanish, German and English Market	Launching in North American market 10K Users step	Launching on the International Market: Japan, China, India...
NEW FEATURES	Courses Development Courses Testing & Updating	Development of new courses Development of the forum FeedBack and course rating Launching of the Private Tutor functionality	Development of new courses Vocal automatic assistant development	Development of new courses	Development of new courses Past courses updates
INFRASTRUCTURE	Application Development Application Update Backup setting	Functional Test	Functional Test Backup update	Functional Test UI update	Functional Test System improvement
SALES	Partnership development Freemium strategy development	Partnership development Launching freemium version	Partnership development	Partnership improvement Exploitation of users data	Partnership improvement Update of freemium version
SECURITY	Development of Authentificated account Development of Discoverer account Policy	GDPR Compliance PCI Compliance Start of users data collection	Improvement of data collection	Improvement of Datasecurity	Two-factor Authentication
INTEGRATION & MARKETING	Lead generation strategies Hiring people for the Italian marketing	Launch event planning Hiring people for the EU (French, German, Spanish and England) marketing	Launching of the advertismet	Partnership improvements	Market share reporting Hiring people for the International Marketing (Asia, North America...)
STICKINESS	Personal Account Involved status: Begginer, Intermediate & Master	Auto-save of the progress Reward for completing a course Launch of the FAQ	Forum & Community creation Invesment sharing	"Super Master" status creation Research for new attractive topics Launching of monthly webinar	Provide a skills attestation Diploma course

## 7 – Illustration of Main Risks

Distinctive characteristic of every entrepreneurial activity is the constant presence of various risks that could damage in many ways the project's development and our start-up is as well subjected to a series of possible obstacles with different danger degrees. In this section the main issues that our business can encounter are described, while in **APPENDIX 6** is exposed the full risk analysis made by our team.

**Technical Risks:** Since we will have to treat users' data, we must guarantee the safest possible management of them (that is the reason why we dedicate a role in our team only devoted to privacy and data treatment). Always on the security side, it is essential to avoid possibilities of frauds and scams inside our app (especially after the creation of the forum section) and a limitation on online access could be implemented to solve this. Furthermore, we must consider the problem of getting regular and correct feedbacks: in fact, many of our potential customers are not already capable of logging in the Play store and write a review of our software alone. To overcome this problem, we are thinking of providing also tutorials on this specific topic. In addition to these issues, the development of a clear user interface that do not confuse the people still not accustomed to their devices is a critical aspect, that will force us to pay lot of attention to it. Finally, as previously stated, it is very important to identify correctly our customers' needs, especially for every time we introduce a new feature for premium accounts and to better accomplish that every testing phase has to be empowered.

**External Risks:** Looking at external related issues the main one resulted to be attracting potential customers in the initial/launch phase. Certainly, we must spend the most of our energy in realizing a good advertising

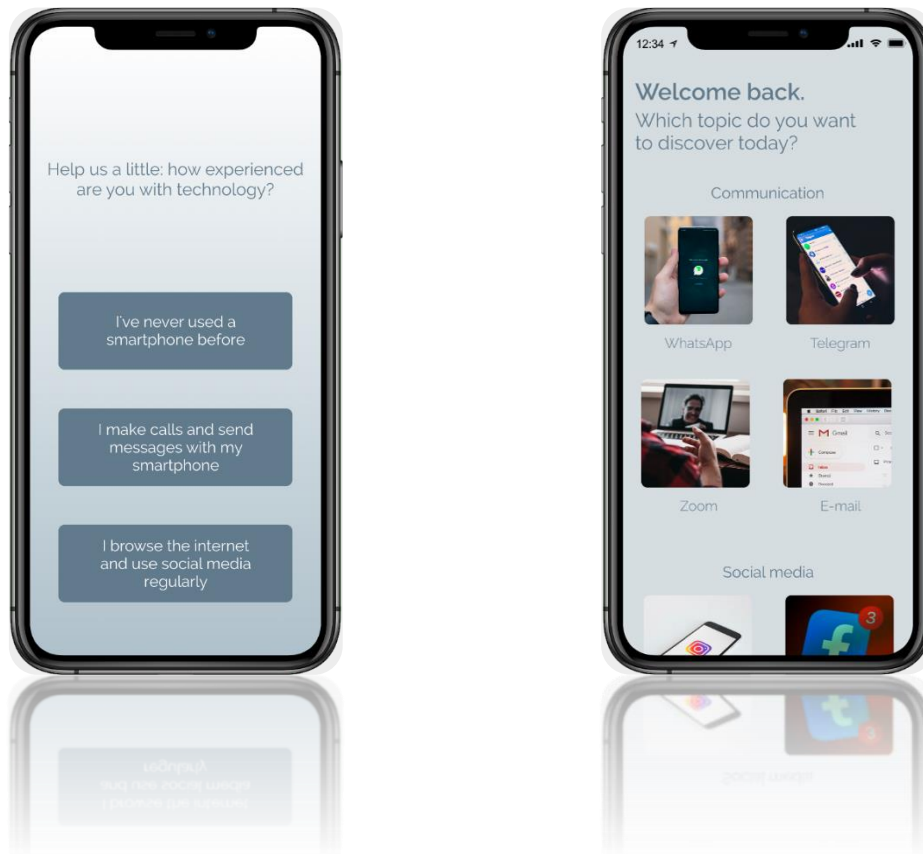
campaign, which can get the interest of our target users but also of younger people that may download the application for their relatives, and in signing possible partnerships with companies that could easily provide us a good initial userbase. Regarding this last topic, carefully looking at legal aspects of alliances and at the amount of time necessary to start working together are crucial to avoid dangerous situation for a complete growth of our business.

**Organizational Risks:** one of the predominant goals of our team is trying to overcome all the budget-related issues, which could prevent us from correctly following the planned roadmap. Among these, we noticed the problem of getting the right amount of external financing from Business Angels or other kinds of investors and, consequently, the one related to make a proper sketch of our economical requirements by not underestimating our expenses and, possibly, by periodically updating our budget valuation according to our current financial situation.

# APPENDICES

## APPENDIX 1

Examples of our application interface:



## APPENDIX 2

The role chosen for our team are the following:

- CEO: President and supervisor, he has a clear idea of the business model in general and what kind of objectives our team is aiming.
- CSO: Sales Manager, he oversees the sales situations and analyse the market and competitors, he cooperates with the rest of the team in defining the suitable growth strategy.
- CDO: Data & Privacy Manager, he is in charge for the management of all data users and their consequent monetization.
- CFO: Financial Director, he oversees all the financial operation like accounting and reporting.
- CPO: Product Officer, he follows the development of the software on the entertainment side and on how to increase the engagement of the application.
- CTO: Technical Director, he follows the technical side of the development of our application especially on programming and UI/UX design.
- CMO: Marketing director, he follows the advertisement parts and alliances strategies.

## APPENDIX 3

### 3.A) Value Proposition Canvas Description:

**Customers Jobs:** We identify our target customers as adult citizens (mostly seniors) that want to improve their overall technological knowledges: in particular, we target people who aim to properly learn how to use their smartphones and the related online services, avoiding any possible scam.

**Pains:** Most of the nowadays technologies expects a basic understanding of its fundamentals without providing effective methods to give them to people in need. As an example, we can pick the touchscreen, that is in every smart device, which has a learning curve for its proficient usage and if you are not skilled enough you are cut off from a very large group of everyday activities. But there are many other possible examples of convenient services accessible from a smart device: banks have most of their processes digitalized and accessible online to look for personal bank accounts and without the need to waste time and car fuel to physically go there, postal offices have virtual assistants through which you can book appointments and avoid queues, delivery services of restaurants and chemists and many others. Governments also are developing online services that often are not easy to access (for example SPID identity in Italy). Furthermore, especially old and alone people avoid trying these online features due to the fear of possible “mistakes” or even scams and frauds in doing things without a supervisor.

**Gains:** This new software is designed to gift the customer/player with every new knowledge he seeks, but always managing to provide it in an easy and fun way. Thanks to an initial level testing, the software instantly adapts itself to fit the customer’s needs, tuning the difficulty of its courses to make it more comfortable. The gameplay then completely guides through all his possible features using a direct explanation, mixed up with little tests to verify the user understanding step by step. This way we never lose the customer’s attention and we can reiterate several basic concepts to the point of complete understanding.

**Products & Services:** Our product is a software to teach the basics of many skills linked to smartphone technologies, using interactive and fun games with very simple step by step tutorials. Every user gets tested at the beginning with questions to be assigned to a certain tech-skill level. Based on that level, the user can start accessing to courses in our application: some of them are on practical and lower levels skills and they are structured like minigames with a limited number of attempts and experience points for every correct answer; while some other courses are more theoretical, based on video tutorials that will later test the understating with questions or less complex games based on the video (for example, try what has been learned in a fake app interface, complete the sentences, true or false questions, etc.). The User Interface will also be bright and crystal clear so that it does not get intimidating for people that know very few about technology, and with time it evolves with the player, either by levelling up or thanks to customization. With a high enough level or by subscribing to the premium version, more courses, challenges and features will be available and will increase the engagement of our software.

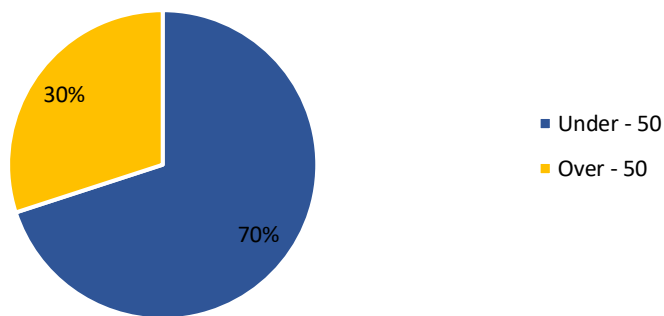
**Pain Relievers:** Our solution to client’s pains is a smartphone application that helps people in need of understanding these new skills by guiding through them step by step and teach in an interactive way how these technologies work, how they improve their lives with it and finally make them arrive at a level where they can use these new tools independently with proficiency. To sum up, they will use our platform to gain knowledge, skill they did not have before and ultimately to use effectively every new possible gadget or tech tool to finally obtain the gains they provide to everybody else.

**Gain Creators:** The most effective way to give the gains we promised is using several teaching courses, separated based on overall skill and experience showed at the beginning. Thus our customers will be able to test their skills repeatedly, in a sandbox environment, where they can learn every new abilities they want without fear of making a lasting mistake or to “break their devices”. In addition to that, every course provided to learn a basic or advanced skill is made the most rewarding and

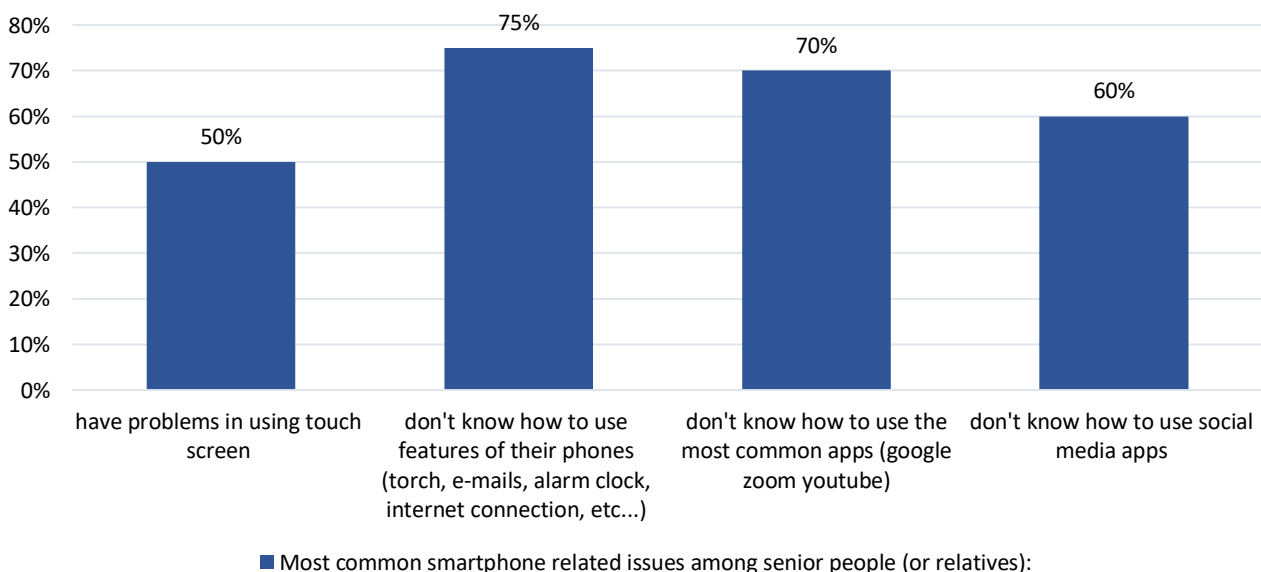
fun experience possible in order to keep the customer happy and satisfied until complete mastery is achieved. Some courses at the beginning are even actual games in which score is decided based on the level of skill with the ability that is being tested, this will ensure not only a higher experience but also the level of fun necessary to boost determination and to avoid them leaving out of boredom or even frustration.

### 3.B) Online Surveys Results:

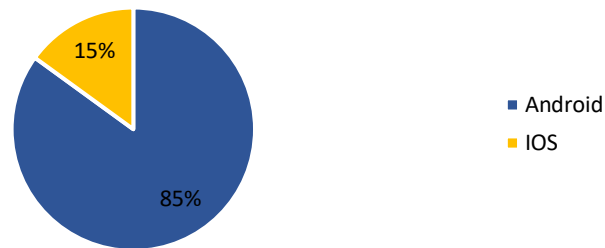
Age of the interviewed



Has the interviewed (or older relatives of interviewed) ever been victim of a telephone scam/fraud?



## Which O.S. they have in their smartphones?



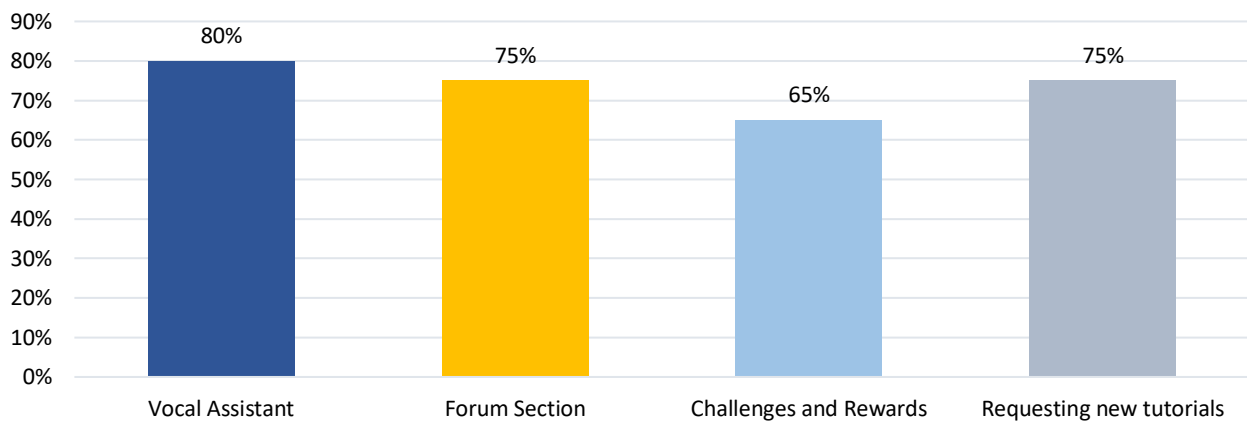
Most relevant comments:

“Tutor must be easy and clear”

“The app should be in constant updating”

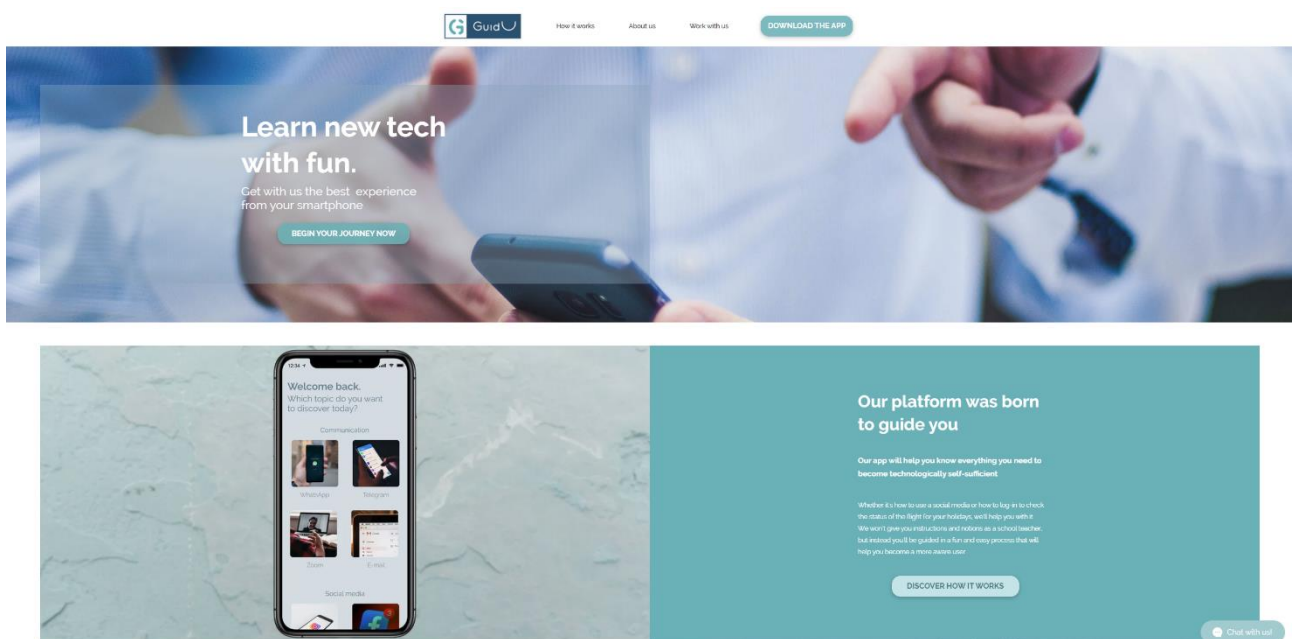
“The tutorials should be always available and rewatchable since often they tend to forget some features”

## Most wanted features



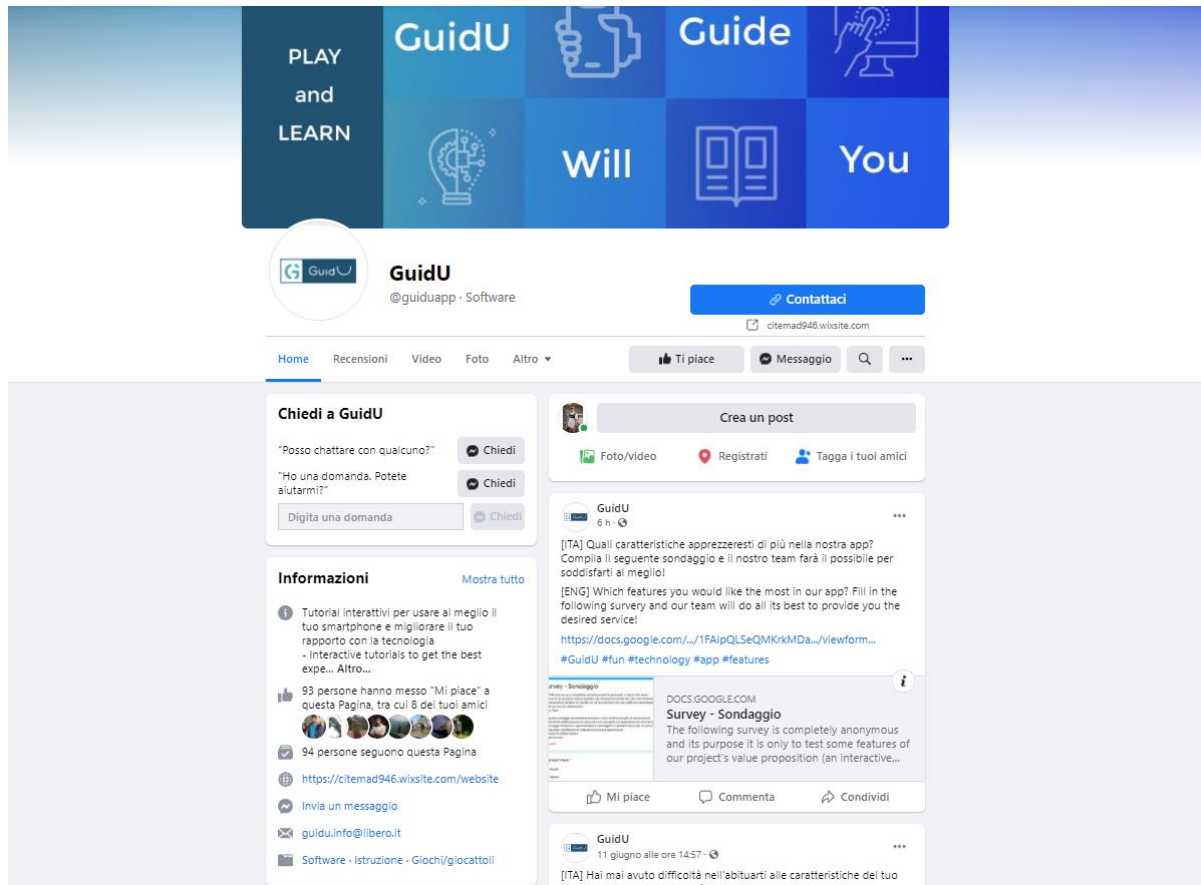
### 3.C) Landing Page

Website URL: [Home | GuidU \(wixsite.com\)](https://www.wixsite.com/guidu)

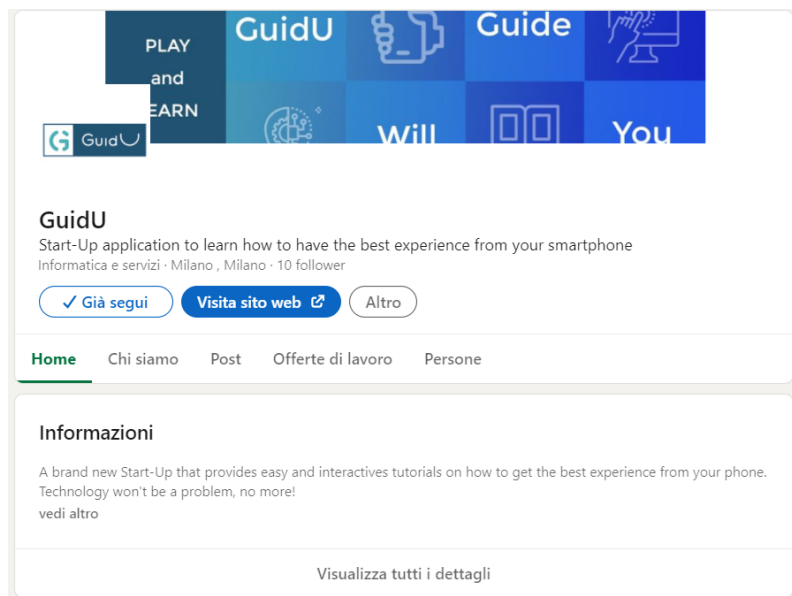


### 3.D) Facebook and LinkedIn Pages

Facebook page: <https://www.facebook.com/guiduapp>



LinkedIn page: <https://www.linkedin.com/company/78586631>

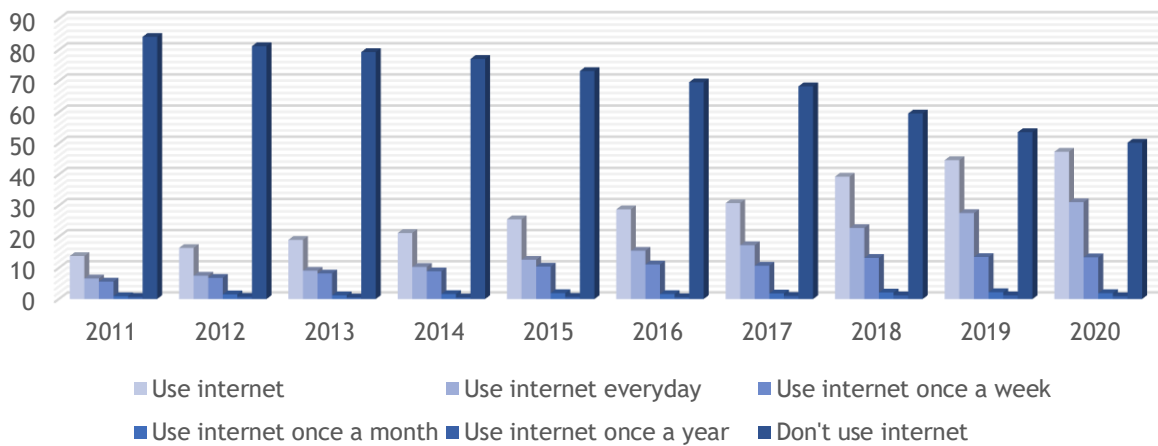




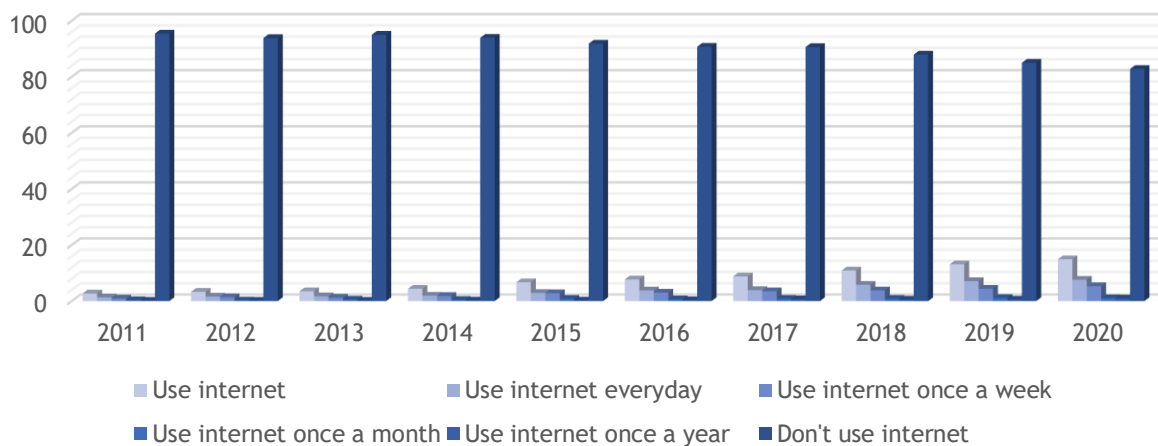
## APPENDIX 4

### 4.A) Age Groups Histograms

#### 65-74 Age group



#### 75+ Age group



### 4.B) Brondi and Emporia case

Brondi and Emporia are two phone companies that realize devices mainly for senior citizen or people that have never had a mobile phone in their lives. Their peculiarity is that they can both be considered as potential competitors and potential partners. The first case is related to the fact that they produce very minimalistic mobile phones, with no touch screen neither internet connection, but with buttons and huge screen: this kind of easy devices can, in fact, prevent our potential customers from buying more “complex” smartphones and consequently from downloading and using our app. Nevertheless, on the other side, the two companies have also started to produce and sell easy smartphones with Android systems: preinstall our application that can better guide their usual unaccustomed customers through their smartphones could be a good point for signing an alliance from which all of us can benefit.

## APPENDIX 5

### 5.A) Sketch of Costs Revenues and External Financing:

<b>Sketch Of Financial Analysis</b>		1st year	2nd year	3rd year
Expenses	Setup Expenses	5.000 €	0 €	0 €
	Application Development (Android + IOS)	10.000 €	0 €	0 €
	Website Development	2.000 €	0 €	0 €
	Testing and validation	1.000 €	0 €	0 €
	Server Cost	1.000 €	3.000 €	6.000 €
	Office Space Renting	1.800 €	9.600 €	9.600 €
	Expand in a new market (2nd European, 3rd International)	0 €	20.000 €	50.000 €
	System and Software Upgrade	0 €	15.000 €	20.000 €
	Advertisements (Newspapers, Facebook, Other medias)	10.000 €	20.000 €	30.000 €
	Others and variable Costs	3.000 €	3.000 €	3.000 €
Number of Employers		7	12	20
Salaries		128.338 €	300.000 €	640.000 €
<b>Total Expenses</b>		<b>162.138 €</b>	<b>370.600 €</b>	<b>758.600 €</b>
Finance	Initial Funding	35.000 €	0 €	0 €
	External Finance (VC, Business Angels, etc...)	50.000 €	100.000 €	100.000 €
	<b>Total Financing</b>	<b>85.000 €</b>	<b>100.000 €</b>	<b>100.000 €</b>
Income	Income from in-app Ads & Purchases	53.000 €	225.000 €	525.000 €
	Income from Premium Account	21.600 €	54.000 €	144.000 €
	Income from Partnerships	1.000 €	2.500 €	5.000 €
	Income from Data selling	3.800 €	15.750 €	37.000 €
	Number of Non-premium Users	3500	15000	35000
	Number of Premium Users	300	750	2000
<b>Income</b>		<b>79.400 €</b>	<b>297.250 €</b>	<b>711.000 €</b>

To compute some of the entries of this financial analysis table we made the following assumptions: the office rental cost is lower in the first year since we aim to use a coworking space for the first 6 month (if possible in partnership with the incubator) before find one on our own. Then, regarding employees' salaries we estimated for each person about 20k € for the first year, 25k € for the second and 32k € for the third. Finally in income part we considered 6 € per each premium user, while we estimated about 0.15 € for every advertisement viewed (including an additional amount due to single in-app purchases).

### 5.B) Incubator choice:

Regarding incubators we have found two possible different solutions: the first one is PoliHub, which is the most convenient for Politecnico di Milano undergraduate and provides service directed to students' start-ups; while, the second one is SellaLab-dpixel, which we considered mainly because we aim to establish in the countryside to follow the Italian trend of re-evaluation of cultural environmental areas, and Biella (the city where the HQ of this incubator is) is a perfect example of this, and, secondly, it also offer services of pre-acceleration that could be even more helpful for our development in the early growth stage. In any case, both could provide us very good connections with possible partner companies such as phone carriers like Vodafone or banking services such as Hype, that are good ways to better sponsor our idea among the largest possible group of potential customers.

## APPENDIX 6

Legend	Probability of risk occurrence	%
1	High probability	More than 80%
2	Medium-high probability	60% to 80%
3	Medium-low probability	30% to 60%
4	Low probability	Less than 30%
Legend	Risk impact	Rating 0-100
A	High/Catastrophic	100
B	Medium/Critical	50
C	Low/Marginal	10

		Probability			
		1	2	3	4
Impact	A	Maximum exposure	Very high exposure	High exposure	Moderate exposure
	B	Very high exposure	Moderate exposure	Moderate exposure	Low exposure
	C	Moderate exposure	Low exposure	Low exposure	Very low exposure

### Technical Risks Analysis

Requirements risks					
Brief description	We need to identify precisely which features should be implemented in the app: the customers' needs should be as clear as possible	We need to make the app itself as safe as possible: sensible data management is an issue	UI/UX design is crucial	We may need to restrict the online access via the app because of possible malicious activities (frauds, scams, etc.)	If we make a meta-implementation of ads we should discard confusing/controversial ones
Risk	Misidentification of customers' needs	Sensible data leak	Non user-friendly environment	Network access	Deceptive ads
Rating	High exposure (A3)	Very high exposure (A2)	Very high exposure (A2)	High exposure (A3)	Moderate exposure (A4)
Notes	We need to do further testing before releasing new features and further examine customers	Even when safety measures are implemented this remain an issue	A simple as possible interface should be designed	Online interactions should be limited	Ads implementation is difficult

Technological risks		
Brief description	We need to take into account internet traffic and connection speed	We need to make the app equally available on more than one type of device: iOS and Android have different requirements
Risk	Impaired performances for some users	Feature differentiation
Rating	Moderate exposure (B3)	Low exposure (B4)
Notes	Nowadays they're basically all sufficient	Taken into account in development

Performance risks	
Brief description	Optimization is a real issue (different OS, different devices, etc.)
Risk	Non equal performances across all devices
Rating	Moderate exposure (B2)
Notes	It's basically impossible to optimize the app for all device

Quality risks		
Brief description	How can we get feedbacks on usability and features from people that are not capable of doing so?	The service must have high standards: older people don't want to fix things they don't know
Risk	Not getting user feedback	Non satisfied customers
Rating	Very high exposure (B1)	Moderate exposure (A4)
Notes	It would be difficult to improve the app if users don't give any feedback	Feature testing is key

### External Risks Analysis

Market related risks		
Brief description	At the moment the market doesn't exist, we can't estimate beforehand its size	Purchasing power of possible customers may vary
Risk	Non existing or too small market	Users won't upgrade to paid versions
Rating	Moderate exposure (A4)	Moderate exposure (B3)
Notes	We can do further research, but there's a need for this kind of service	Subscription prices shouldn't be too high

Alliances related risks		
Brief description	Alliances with corporate partners are difficult to obtain and/or require time (around 6 months)	They may lead to an exclusive use by a company (i.e. a phone carrier) and limit the user-base size
Risk	Without an established alliance we won't have a certain financial source	Corporate partners wanting exclusive service
Rating	Very high exposure (A2)	Moderate exposure (B2)
Notes	We need to have other financing sources, we can't solely rely on alliances	This should be discussed with the eventual corporate partner

Customer related risks		
Brief description	Attracting customers in the launch phase will be difficult: how can we attract them?	Customer retention is an issue: if an user fails to use the app because of the gamification, will he/her continue to try?
Risk	Non sufficient initial user base	Difficulties in customers retention
Rating	High exposure (A3)	Moderate exposure (B3)
Notes	Sufficient advertising and good media presence can be useful	Gamification can be a double edged sword in this regard

## Organizational Risks Analysis

Project dependency risks	
Brief description	Introducing some features may not be feasible because of the dependency on features provided by the platform on which it is running
Risk	Non feasibility of some features
Rating	Low exposure (B4)
Notes	Workarounds can be used

Planning related risks	
Brief description	Updates should be planned and rolled out as fast as possible
Risk	Not meeting expected quality standards
Rating	Low exposure (B4)
Notes	Testing is key

Budget related risks			
Brief description	Identification of development costs	The startup needs funds in order to distribute effectively the application (advertisements, social media contents, etc.)	External financing is an issue: we don't have actual data on the market to show us as trustworthy
Risk	Not knowing the cost "magnitude"	Subpar results from ads	Not obtaining funds
Rating	Moderate exposure (B3)	Moderate exposure (B3)	Moderate exposure (B2)
Notes	Estimation of development time and team size is mandatory	Advertisement budget should be used cleverly, targeting the correct audience	Business model is key

Resources related risks	
Brief description	We may need to hire someone in the programming field to have ready-to-do workforce
Risk	External staff needed
Rating	Moderate exposure (B2)
Notes	To get the project started as soon as possible we may need skilled programmers/software engineers