

Biz4Fun, a Virtual 3D World for teaching Entrepreneurship Skills

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Abstract. Youth unemployment remains a serious concern in Europe. Poverty rates are higher for young people than for the overall population and involuntary part-time work or protracted temporary positions expose this generation to a risk of long-term poverty. Even if the number of young people, who want to start their own business, increased, they perceive an actual beginning of their business as unrealistic due to shortage of financial and other sources. So, it is vital to inspire and motivate young people to start their own business, assist them in gaining strong entrepreneurship skills and competences, and ensure that the next generation of professionals have strong knowledge and entrepreneurship spirit. Biz4Fun is an Erasmus+ project, that utilizes a 3D Virtual World as the medium to attract and teach young people the necessary skills for establishing and running a successful start-up business. A relevant curriculum has been developed, along with learning material and scenarios, implemented in the 3D World based on Gamification approaches.

Keywords: Virtual Reality, Entrepreneurship, Start-ups

1 Introduction

The European Union is facing a worsening youth employment crisis - youth unemployment rates are generally much higher, even double or more than double, than unemployment rates for all ages [1]. One of the ways to reduce the high amount of unemployed young people is to help them start their own businesses. Youth entrepreneurship is vital for creating employment and sustainable growth and has become a priority in the EU policy agenda as a tool to combat unemployment and social exclusion as well as stimulating innovation among young people. So, it is vital to inspire and motivate young people to start their own business, assist them gain strong entrepreneurship skills and competences and ensure that the next generation of professionals have strong knowledge and entrepreneurship spirit.

The Biz4Fun Project - under the title “Let's Have fun with the business start-up” - runs under Erasmus+, was commenced in October 2018 and is due to be completed in September 2020. The Biz4Fun partnership represents 7 organizations from 6 countries (Slovakia, Italy, Greece, Romania, Turkey and the Czech Republic). The main aim of

the project is to increase the competitiveness of young, mostly unexperienced people, on the job market in partners' countries using a 3D virtual learning environment with learning material and activities.

Several innovative open courses and learning scenarios have been designed to efficiently teach Entrepreneurship, focusing on the steps and the knowledge to build a successful start-up company. The educational platform that has been developed, uses advanced ICT-based educational methods like 3D virtual reality to host the learning material and the learning scenarios based on Gamification approaches. The three main outputs of the project are 1) a curriculum and learning scenarios, based on the study and analysis of best practices in the development of technology incubators and successful entrepreneurial activities, 2) content for the learning topics regarding the necessary skills to establish and manage a company, offered as Open Educational Resources, and 3) a 3D Virtual World that will host the learning resources along with a Game using the described learning scenarios.

The rest of the paper is structured as follows: In Section 2, the technical aspects of the 3D Virtual World are presented. In Section 3, the educational material and courses offered to the students are presented. Finally, Section 4 concludes the paper.

2 The Biz4Fun 3D Virtual World

Over the past decades, technology has offered new approaches and opportunities for more efficient and intensive learning. One of the latest technologies involves 3D Virtual Reality environments. A Virtual World environment offers the ability for students to virtually interact and experiment with items and constructions in a similar way they would do in the real world.

One of the most popular platforms that offer the ability to create Virtual Worlds is the Open Simulator (OPENSIM) platform. OpenSimulator is an open source multi-platform, multi-user 3D application server. It can be used to create a virtual environment (or world) which can be accessed through a variety of clients, on multiple protocols. Opensim empowers students - through their avatars - to move around the areas of the virtual world, to communicate with one another using text, voice and gesture animations and to interact with items. In figure 1, a part of the Virtual World developed is presented.



Fig. 1. An avatar approaching the initial course of the 3D World

The Biz4Fun 3D Virtual World is the main output of this project, hosting all the OER (textbooks, presentations, multimedia, 3D objects and constructions) developed as well as the learning scenarios. The environment will be freely available for young people to visit and use for self-learning purposes. Moreover, trainers will be encouraged to participate and extend the courses offered while improving their ICT skills. Furthermore, it will include functionality for gamification and carrying out virtual sessions like conferences and seminars, a media library and other learning activities. The game will be elaborated with knowledge from successful start-up cases through the developed OERs. The overall concept of the game will be based on real start-up companies. The participant will have to establish a start-up company and manage it from the beginning.

3 Courses formulation in the Virtual World

The courses that have been developed cover the key concepts and steps needed to design or innovate a business model. Students can learn about the trade-offs to be made, and the design issues that are critical for a viable and sustainable business model. In terms of demonstrating the understanding of how to develop a successful business, the student will be able to: a) design an appropriate business model; b) recognize appropriate financing models for their entrepreneurial career; c) articulate an effective elevator pitch to gain support for the venture; d) develop a well-presented business plan that is feasible; e) develop a multi-target marketing strategy.

The courses included in the Biz4Fun curriculum are the following:

- Introduction into the Entrepreneurship
- Business Opportunities and Market Trends in your Country and Europe
- Business Models
- Business Plan
- Collaborative Tools for Designing or Innovating a Business Model
- Marketing
- Digital Marketing
- Analysis on the Best Marketing Strategies for Small Businesses
- Financial Management
- Human Resources Management

Through these courses, young people will be able to follow step by step the establishment of a successful business.

4 Discussion and Conclusions

In this paper, we present the Biz4Fun project and explain its aims and its main outputs. The aim of the project is to increase the competitiveness of young, mostly unexperienced people, on the job market using a 3D virtual learning environment with learning material and activities. We have presented the technical aspects of the Virtual World Platform and an overview of the implemented courses and the learning material. Currently, piloting activities have been scheduled, the final Virtual world platform is expected to be completed and available by September 2020 and we are confident that it will provide useful training resources for entrepreneurship education in European countries.

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