University Simulator

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Abstract

University Simulator, helping students decide their training and what qualifications they need for the labour market.

It emulates the reality of University life and the labour market by using different variables, such as professional contacts and events, which are found in the real world.

The simulator may be a tool to be applied in the educational world and in the professional environment.

It does this by covering the main areas and functions of the University and allows for distinct levels of difficulty, depending on the user.

Interacting with the Internet, the Simulator uses different educational models, from the classic classroom to online and distant learning.

It can be used as well from a competitive point of view, by comparing unlimited Universities exam results. This allows a definition of different products, markets, technologies and client bases.

This means students can choose their courses and ultimately, success or failure.

Students also learn from mistakes through the programme.

Moreover, it includes other relevant characteristics, like the personal abilities of staff at distinct Institutions, the use of other languages, prices and social economic factors.

Finally it contains a wide variety of graphics and info sheets to show the main points of Universities on the market.

To sum up, all of these factors of this Simulator are excellent tools for the student to help in the choice of academic or professional careers.

Students may submit their careers and carry them to success or not. It will depend on the suitable decisions they have according to the labour market emulated by the Simulator. Thus, pupils may learn from their successes and mistakes.

The Universities involved in the simulation can be controlled by humans or computer programs. These computer programs will be developed using artificial intelligence techniques such as machine learning, an area for building computer programs (virtual agents) that improve with experience.

In this case, these virtual agents will learn to manage the Universities in a similar way that students will do by trial and error.

This will increase the difficulty of the simulated market and will open the possibility of multi-player simulations, where some players may be human, but others can be controlled by computer programs built with artificial intelligence techniques.

Apart from these learning techniques, we may mention many other tools in the field of artificial intelligence that can be used, such as business intelligence.

The Simulator will follow a business model that will include economical basic rules like for example if the price of a product increases, that product demand is likely to fall, and therefore it may be sold less and other complex elements that must be encoded.

This model will be formalized by experts in business management by business and educational rules.

To develop this tool will be needed a multidisciplinary team of professionals, teachers and computer engineers.

References


