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LEARNING: A TOOL FOR COMPETITIVE, SUSTAINABLE AND SECURE ENTREPRENEURIAL ACTIVITY

In the midst of today's global crisis, a true urgent need for competitive, secure and sustainable business initiatives arises, in the sense of implementing a strategy that focuses on certain key points, predicts and aims to make a profit, while, at the same time minimizes the risks, the loss of financial rights and of course the environmental pollution.

The purpose of this work is to integrate learning into the world of business enterprises by exploring their common features, their potential relations as well as the impact of impending mathesis to an entrepreneurial initiative. From a marketing, financial and operational viewpoint, any contemporary successful business requires multimodality, polymorphism and adaptability to socioeconomic and spatiotemporal changes without loosing its value, for which, learning seems to be an inherent element. In that prospect, any learning procedure is not subjected to legal restrictions, its kickoff is based on the human senses, simulates recyclable and reusable energy, is risk-free and so on, qualities considered as being essentialia negotii, that are gained ex tunc and act ex nunc for a general secure entrepreneurial activity that will be adaptable to any new and rapidly changing data as well.

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Introduction

An entrepreneurial initiative, in order to be successful, especially within today's financially and environmentally unstable conditions, should be based upon a safe, sound and sustainable plan (Black, 2014). Any such business plan should clearly and accurately determine its outflows and inflows, which are not only financial (e.g., capital, profit, bankruptcy) but social (e.g., reputation, maintenance, evolution) and cognitive (know-how, adaptability, prosperity) as well (Janiūnaitė et al., 2013). For example the reputation of the new business, aiming at its long lasting existence within the labor market and, particularly, cognition such as the know-how needed to set up the whole entrepreneurial initiative for its adaptability in the market and its prosperity.

In this context, for a business plan to be sustainable and secure, it should identify precisely, whenever possible, the inflows and outflows of its entire activities. The precise weighting of the outflows and inflows of an enterprise is not feasible due to the money factor and its upward or downward course, since they are elements directly affecting the society in general.

Knowledge seems to be the only factor that is controllable and predictable during the implementation of a new business initiative (Williams & Lee, 2011). Based on the idea that knowledge is a prosperous and controllable human activity, we can consider the learning process as a sustainable and secure plan, where inputs and outputs are strictly predictable. In that sense, we can conceptually align the learning process with that of an entrepreneurial initiative.

The purpose of the present work is to study the inherent features of the learning process that could make it so that it is a secure and sustainable entrepreneurial activity.

Integrating the learning process into the entrepreneurship field, since a business activity that clearly and comprehensively predicts the cognitive inflows and outflows of any interactive and transactional environment could only be considered as being a „safe” one.

In what follows, in section 2, we firstly define *mathesis* as being a term superior to *learning* and determine its *essentialia negotii* and in section 3 we give its semantic description. In section 4, we semantically align *mathesis* with a secure, sustainable entrepreneurial initiative, which is our future work, followed by the conclusion of the paper in section 5.

1. Essentialia negotii of *mathesis*

We use here the term „*mathesis*” instead of „*learning process*”, which is derived from the Greek language and means „acquisition of knowledge”. This term is superior since, in comparison to learning, which refers to acquiring specific skills; *mathesis* considers a multidimensional acquisition, deepening and applying skills, knowledge and emotions.

By „essentialia negotii” we mean the minimum set of critical features that attaches particular meaning to an abstract notion (Ueberweg, 2001). Some of the features that conceptualize mathesis are the following (fig. 1).

➤ **It is not subjected to any legal restrictions**

Everyone is being treated throughout his/her life without any legal restrictions. The right to have access to learning is a fundamental, individual right and any limitations and/or restrictions are prevented by the proportionality principle, derived directly from the concept of the „rule of law” and which gets its legislative basis in everyone's right to freely develop his/her personality.

➤ **It is acquired ex tunc (from the beginning) and acts ex nunc (for the future only)**

Through any learning process, knowledge is acquired ex tunc, that is, from the beginning, even if it has not been fully comprehended by the learners. Learning acts ex nunc, that is, for the future only. This means that whatever knowledge was gained in the past, it is possible, even if it seems to be „irrelevant” for that particular spatio-temporal dimension, to be useful in the future.

➤ **Does not involve any risks**

Learning and knowledge have never brought about any individual risks, apart from some extreme cases of science development and in particular, for purposes which contradict morality, have huge social impact and are usually rejected and condemned by the society.

➤ **It falls under the principle of free choice**

Every natural person is free to choose the cognitive subject related to his/her interests. To our knowledge, there are no cases of coercive learning in today's societies.

➤ **It works in short as well as in long term**

Knowledge can be used at the moment of its acquisition, in a short period of time, but it does not cease to be useful in the future, either in the form that it was obtained or in any other „mutated” form, which is incorporated into a new context.

➤ **It refers to all apperceptions (human experiences & influences)**

Learning, as a process, takes place throughout a human's life and the created mental forms are the results of all his/her senses and actions.

➤ **It does not require capital**

The major capital for any learning process is only the human senses.

➤ **It is subjected to spatio-temporal changes without losing its value**

Although information is subjected to change over time getting different values throughout different contexts, learning information has enduring value.

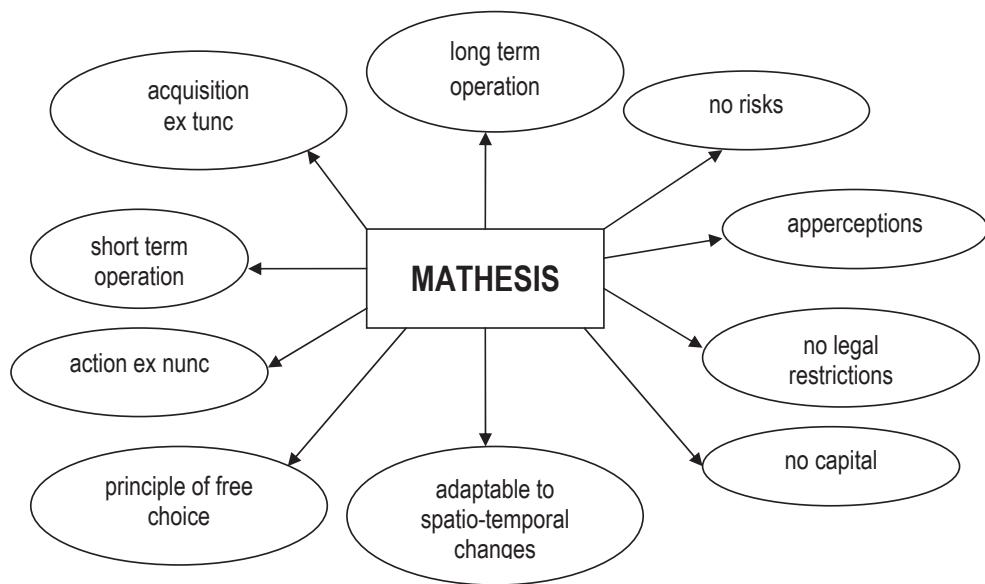


Figure 1. Conceptualizing mathesis

In the learning process the inflows and outflows are mainly based upon one and only one constant, that is, knowledge.

The only elements being modified concern the use of new technologies, which are constantly evolving as well as the human mobility that is rapidly growing, especially within the Balkan countries. Those unstable and rapidly changing elements lead to the development of new learning models (fig. 2).

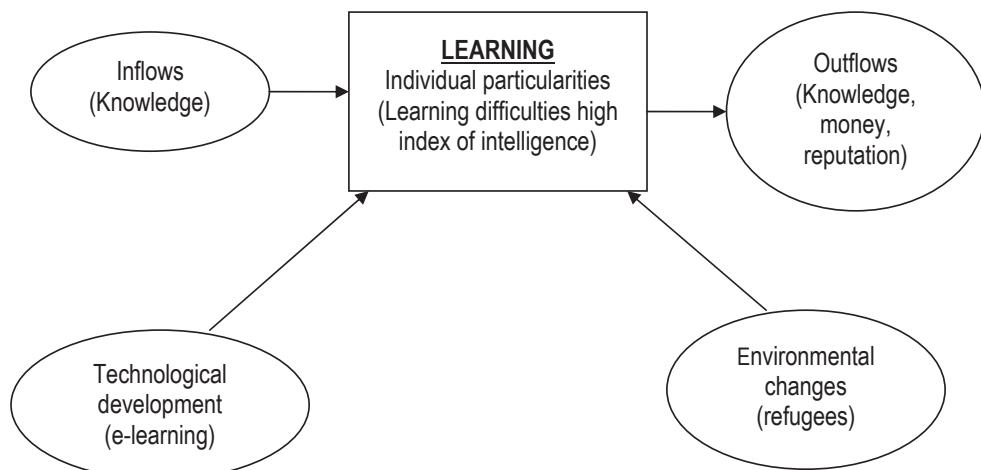


Figure 2. Inflows and outflows of the learning process

Therefore, since learning is a process in which outflows are predicted by the inflows and do not require only financial capital, it can be considered as a secure and sustainable business plan.

2. Semantic description of mathesis

Semantics is the study of the meaning of linguistic expressions (Sowa, 1995). The language can be a natural language, such as Greek or Polish, or an artificial one, like a computer programming language. In the scientific field of semantics, an ontology is used as a means for maximizing the capacity of human or computer agents to reason about the meanings of specific notion. In general, ontologies clarify the structure of a piece of knowledge and enable knowledge sharing.

In philosophy, an ontology is the study of existence (Coffey, 2011); while in science, it models an abstract notion by using a directed label graph, where nodes illustrate terms that are the essentialia negotii of the specific abstract notion and edges illustrate the relationships among its essentialia negotii. In this way, an ontology establishes a unique representation model of an abstract notion.

Although, an ontology is defined as a unique representation model of a domain of interest, in practice, many ontologies are used for describing the same domain, since anyone has a different perception of this domain (Chandrasekaran et al., 1999). In the domain of mathesis or more specifically in the domain of learning, many ontologies have been developed which have been used in learning in different ways, such as curriculum modeling and management, describing learning domains, learner data and e-learning services (Al-Yahya et al., 2015).

After having reviewed the existing ontologies in the domain of learning, we intend to build the ontology of mathesis, based on its essentialia negotii described above.

3. Semantically aligning mathesis with a safe entrepre-neurial activity

The future work that will complement this paper is depicted in figure 3 and its main purpose will be that of instantiating a proposal for a business plan to the under construction ontology of mathesis, by using a matching algorithm in order to conclude whether it is a secure entrepreneurial activity or not. In order for this attempt to be achieved, the following are required:

- The ontology of mathesis, which will be built by taking into account its essentialia negotii. The NeOn methodology for the ontology engineering will be used (Suarez-Figueroa et al., 2012).
- A knowledge extraction tool which aims to identify and extract knowledge triples from text documents and to provide it as RDF triples (Exner & Nugues, 2012).

- A tool (matching algorithm) for automatic ontology instantiation by using the extracted triples in RDF format (Alani et al., 2004).
- A rule-based inference engine to perform reasoning based on the ontology of mathesis (Zhong et al., 2012).

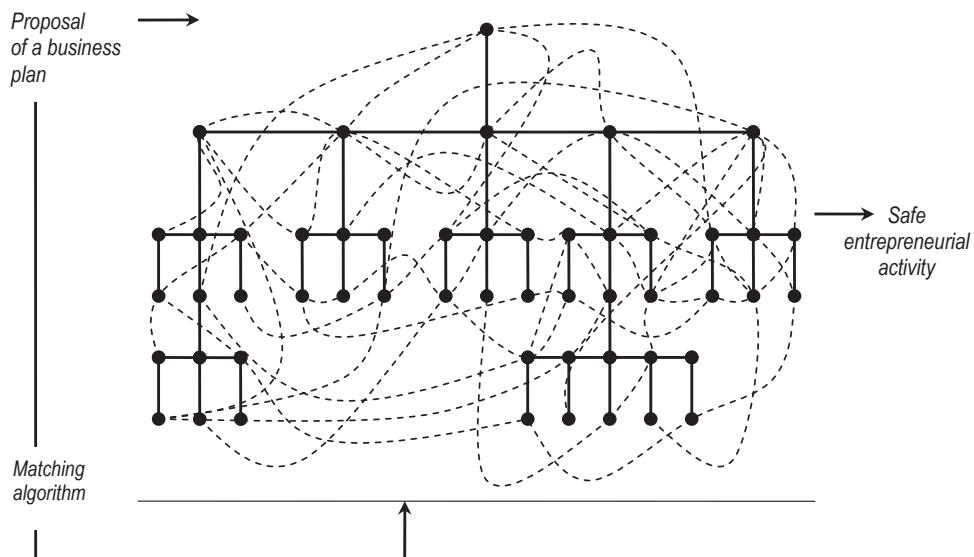


Figure 3. Instantiating a business plan to the ontology of mathesis

We are committed to implement the semantic technologies and publish the results of this attempt, the main idea of which is that, whenever the key points describing the proposed business plan are matching those of the ontology, then it can be classified as being a safe one.

Conclusion

In this paper, we attempted to model mathesis as an entrepreneurial initiative and to integrate its positive, sustainable features into those of any contemporary business activity, in order to ensure its safe and sound future and prosperity. The essentialia negotii of mathesis was semantically described by using the notion of ontology, in order to align them with a secure business plan.

Ontologies are formal structures that provide a shared understanding of a certain domain. They represent the semantics of a domain explicitly, enabling intelligent access to information. The main outcome of the proposed idea is that, an entrepreneurial initiative, which is modeled as an instance of the ontology of mathesis, can reduce enterprise

risks, based upon the principle of free choice within an unstable and unpredictably developing business context.

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