Joyfully Map Social Dynamics when Designing Web-Based Courses

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ABSTRACT

This paper provides a concept and a notation for optimizing the design of social processes in gaming and learning for individuals, groups of individuals and society as a whole. Traditional approaches to the mapping and designing of the emerging social dynamics in a joyful, social education setting have fallen short of producing desirable results due to the lack of joint consideration of social processes occurring in several dimensions and their intrinsic interconnectedness. This paper suggests writing down gaming procedures by means of musical score. Such a mapping strategy allows for heuristic analysis of the social dynamics occurring at the following four levels: logical information conveyed (S), team building (A), debate & discourse (T), and integration with others’ experience (B). This paper then concludes by identifying a dynamic structure of learning frameworks that may be capable of delivering an optimal learning effect for both individual and collective learning endeavors.

Keywords: Autopoietic Learning, Evolutionary Societal Procedures, Game Based Learning, Graphic Notation, Multi-Perspectivism, Rhythmisation, Teaching Methods, Web-Supported Learning

1. INTRODUCTION

Game-based learning is a concept long called for (Prensky, 2001; Klabbers, 2003, Mayer & Veenemann, 2002; Ahamer, 2004). However, suitable technological design necessitates mapping the emerging social dynamics in the resulting social setting of education and teaching. In order to step back from traditional understandings, the notion of ‘design’ is understood to refer to space (architecture or geography), time (music) and even to roles and perspectives (e.g. negotiation games). The understanding of one such substrate of design could be helpful in identifying suitably interactive settings of holistic learning and teaching.

“Life” (including gaming) is considered a continuous learning process and playground on a (1) personal and (2) societal level that calls for suitable design of underlying social and communication processes – also through technology. Rhythmisation, multi-perspectivism, and underdetermined gaming frameworks are

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identified as helpful structural principles and procedural values. These three help implement joyful social learning and provide repeated opportunities for gaming learners and other creative workers to “glue into the process”.

With a view to the dynamic design of web-based learning and teaching, this article will propose the discernment of four basic dimensions of any social (gaming or learning) procedure and to notate them graphically in a manner resembling music scores, symbolized by the voice types soprano, alto, tenor and bass. Such notation is applied to cases of simple and complex learning frameworks. Structural rhythms (e.g. such as “STAB” proposed later, meaning the sequence “inform – debate - build team - integrate”) are suggested in order to optimize complex individual and societal learning procedures. The same STAB pattern will also be diagnosed in trends of long-term economic evolution.

A suitable (dynamic, structural and technological) design of social learning processes may enhance the intercultural and multi-perspectivist success of global learning endeavors.

In short, this introduction:

1. Identifies the envisaged problem as a need to optimize the flow of web-based learning procedures and the research focus as an analysis of needed framework conditions for the target of self-optimizing the social interaction of learners;
2. Suggests as a solution to use graphical auxiliary means to visualize social dynamics and to learn from the various fields of design how to structurize dynamic procedures;
3. Identifies the contribution to research of this paper’s integrated, multidisciplinary view on suitable design of learning processes.

The void in the current research consists in the lack of interlinkages being demonstrated between cognitive, behavioral and constructive processes in learners by integrating several traditions of learning theories. Hence, this paper takes a pragmatic path of heuristic pattern recognition that is not bound to learning ideologies.

Therefore, this paper contributes detectable dynamical patterns in the fields of learning, music, architecture, and global techno-socio-economic evolution and infers sequences occurring in successful learning from such dynamic sequences in other fields.

The author has analyzed mainly (1) several dozen personally designed web-based courses for their social dynamics and (2) thousands of data sets of economic time series for their evolutionary pattern transitions and has tried to detect structural similarities between both.

The individual theses of this paper are developed in the sections 2 to 6; while discussion, recommendations and conclusions will follow thereafter.

1.1. Objective of this Paper: How to Document Learning and Gaming Processes?

The aim in the context of this paper is to optimize the design of learning processes (or more generally social processes) for individuals, groups of individuals and society as a whole.

The main particular interest of this article is: how to document social learning processes such as gaming? Such notation could eventually visualize helpful temporal, communicative and social structures in learning processes. Consequently, this may simplify the technological design of teaching, learning and gaming, especially if based on game-based learning (Prensky, 2001).

Hence, the issue at the core of this paper is the “notation of social processes for gaming and learning”.

The main question to be addressed and answered is: Which sequences of learning framework conditions deliver an optimal learning effect (understood here as change of behavior) independently of the learners’ initial stage of mastery?
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