Avatar-Based Automated Tools and Testing Cloud System as a Gateway of Modern Feedback Control in Digital Era

Vardan Mkrttchian, HHH University, North Ryde, Australia
https://orcid.org/0000-0003-4871-5956

ABSTRACT
This article is an enhancement of “Avatars “HHH” Technology Education Cloud Platform on Sliding Mode Based Plug-Ontology as a Gateway to Improvement of Feedback Control Online Society” an article from IJICTHD volume 6 issue 3, published in 2014. This article proposes the concept of creating an automated software system for monitoring student knowledge in the learning process. It is proven that for successful students to learn remotely, it is necessary to develop a knowledge assessment system that takes into account the various learning features, as well as the individual characteristics of the student. The block structure of an automated software system is presented and its elements are discussed in relation to the educational process. The role of the teacher in the virtual learning system is discussed and an algorithm of the learning process in this system is presented. The author using own concept avatar-based automated tools and testing cloud system as a gateway of modern feedback control in digital era.

KEYWORDS
Automated Tools, Avatar-Based, Digital Era, Gateway, Modern Feedback Control, Testing Cloud System

INTRODUCTION
The global process of globalization makes new demands on the quality of school and especially higher education, as well as on the professional qualities of a specialist (both undergraduate and graduate). Although many leading universities in the United States already understand that four years for education at universities is no longer

DOI: 10.4018/IJICTHD.2019100101

Copyright © 2019, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.
enough, and that it is necessary to move on to compulsory five years of education, especially in engineering, technical and physical-mathematical disciplines, but this will take time for the adoption of relevant laws on educational system. This naturally requires changes related to the modernization not of the education system itself, but of its elements related to the control of the learning process (Krasilnikova, 2002).

The global process of globalization makes new demands on the quality of school and especially higher education, as well as on the professional qualities of a specialist (both undergraduate and graduate). Although many leading universities in the United States already understand that four years for education at universities is no longer enough, and that it is necessary to move on to compulsory five years of education, especially in engineering, technical and physical-mathematical disciplines, but this will take time for the adoption of relevant laws on educational system. This naturally requires changes related to the modernization not of the education system itself, but of its elements related to the control of the learning process.

In a situation of new requirements for the results of training specialists in the system of professional (competency-based) education, the following problems come to the fore (Korikov, 2012):

1. Definition of common approaches to the formulation of diagnostic parameters of the educational process, understandable to students, employers and employees of educational institutions (universities);
2. The unwillingness of educational institutions to evaluate the educational process, which involves students at an automated level;
3. The lack of readiness of educational institutions to assess grades, the level of training and competence of students arising during the educational process;
4. Changes in the methodology of conducting the educational process, entailing corresponding changes not so much in the characteristics of teaching disciplines as in control and evaluation activities.

Consideration of all the identified problems highlights a feature related to the quality control of training, which leads to the need to develop quality assessment systems for training specialists at a new level (Mkrtchian, 2012). This article discusses one of the possible solutions to this problem, namely the creation of an automated software knowledge control system based on an analysis of student’s educational and test information assessments in the learning process.

**ACTUALITY OF THE PROBLEM**

Among the problems that modern society has to solve, one can single out one of the most important, related to the training of qualified specialists with higher education (bachelors and undergraduates) who meet the requirements of world standards. This is due to the fact that the speed of scientific and technological progress is constantly increasing, and this requires the emergence of new qualities from graduates. Many
The Use of Interactive Media in Identity Construction by Female Undergraduates in a Nigerian University
Oyewole Jaiyeola Aramide (2011). *Youth Culture and Net Culture: Online Social Practices* (pp. 112-125).
www.igi-global.com/chapter/use-interactive-media-identity-construction/50696?camid=4v1a

Investigating the Connection between Awareness and Internet Non-Use
www.igi-global.com/article/investigating-the-connection-between-awareness-and-internet-non-use/143758?camid=4v1a