

## Use of Digital Learning Technologies in Education on the Example of Smart Education

Jurayev Tuychi Norbutaevich

Department Teaching methodology of Informatics,  
Karshi State University, Uzbekistan

Corresponding Author: Jurayev Tuychi Norbutaevich



### Article Info

#### Article history:

Received 25 September 2020

Received in revised form 01

October 2020

Accepted 03 October 2020

### Keywords:

Smart

Education

Interactive

Assessment

Program

### Abstract

Currently, the main task of teachers is to develop the needs of students for self-development and self-improvement, which is a decisive factor in the upbringing and formation of personality. Practice has shown that modern teachers better assimilate the studied topics as a result of using SMART technologies to effectively determine the goals of the lesson, compared to the indicators of topics studied traditionally. This article discusses and analyzes the methods of using smart learning apps in the classroom and the expected results.

## Introduction

The modern education system requires use of innovative teaching technologies for the effective organization of the educational process of students. Smart education is a form of education that is becoming more widespread and accepted with interest by young people in today's digital age. This reflects the fact that education based on modern technology makes it possible to transfer knowledge and skills to students more efficiently and conveniently.

The concept of intellectual education offers a solution to the problem, providing fast flexibility of available resources, maximum variety of multimedia, analysis of information at the listener and demand level. The simultaneous development of the continuity of education, the constant growth and renewal of knowledge is one of the urgent problems of the modern education system. The research carried out using the smart learning algorithm to ensure that a person acquires perfect knowledge and becomes a mature person in the future will serve the smart generations of Smart Education in the future.

Scholarly learning and careers are primarily used in information on the networks of students, workplaces, and educators. Although the field of research is growing rapidly, there is still a lack of research to show how writing can be the foundation for new design, as well as gaining insights into progress. in front of the light in the field. Therefore, we are conducting a cross-sectional study to develop the basis for designing a new educational intelligence system using the Student Career Assistance System (SCAS). Artifact can be seen as a basic design of a model based solution that supports students in learning and development work for a better future (Singh & Miah, 2020).

Smart Education – creating an active learning climate, E-learning provides two-way communication between teachers and students, allowing them to share knowledge, regardless of the distance of the interview from one another. It reflects advanced technologies that allow

learners to hone their knowledge and skills more efficiently, effectively and easily. Smart training should include smart technology, writing skills, internet speed, and software choice analysis. Smart education, an important part of ideal education, should include modern knowledge and supply programs. It is a complex learning structure built and updated based on new technologies and the use of Internet resources, and includes a structured display of knowledge in the field of science.

Many principles of education are not yet explained due to the ambiguity of this issue. A foundation of essential components for intelligent learning is suggested in this article. One of the six ways to build a complete smart training model. This means that different aspects of this situation need to be considered, and not just information and communication technologies. Educational work, representing many important areas of intellectual education, can be part of the educational intelligence system. Three key areas - the essential aspects of intelligent learning - were identified and analyzed for the author (Tikhomirov et al, 2015) in this research paper: educational outcomes, ICT, and organizational aspects.

The widespread acceptance of mobile phones has led to an increase in interest in the development of application for higher education. The main purpose is to check if college students are using or wanting to use cell phones and applications, especially school use. The information collected from the study gives an understanding of the applications accepted or implemented in primary education (Ojino & Mich, 2018). Education, and especially public education using smart technology, is more important than ever.

This is because not only do we need to rebuild and develop our business skills, but more importantly, we must use this unique technology to gain knowledge, learn from others and work with them all the talents in the world to gain a new understanding. The wealth of communications not only benefits us, but also all human beings. This chapter begins with the advancement of educational intelligence over the past decade. Next, we examine the Learning Intelligence Model - a four-level framework for smart learning methods and key elements of a smart learning environment (Lee, 2020).

The essence of smart technology is to create a smart environment using smart technology, so that smart teaching methods can be facilitated to provide independent training services and empower learners, so that the talent of knowledge and the most importantly organized and high-quality thinking and strong behavior can enhance skills (Zhu, 2012). The useful items for green learning should be in the cloud classification space. In addition to the general characteristics to be considered (scalability, interoperability, reliability, efficiency, availability, storage and security) we must also consider the specific elements of a smart learning environment.

## **Methods**

According to Spector (2016) they materialize in 10 key aspects that must simultaneously define and characterize an intelligent education environment including Location-aware: in intelligent learning real time location creates important data required to adapt the content and the process to the student; Context-aware: exploring various activity and information scenarios; Socially-aware: adaptation to social relations; Interoperability: establishing standards for various resources, services and platforms; Default connection: providing continuous services for any device connected; Adaptability: use of learning resources based on preferences, access and demand; Ubiquity: anticipation of student needs before a clear request, providing visual and transparent access to learning services; Full traceability: recording data about learning habits and in-depth analyses; providing a fair assessment, suggestions and on-demand service;

Natural interaction: transfer of multimodal interaction, senses, including face and expression recognition; Total immersion: multi-directional interactive learning experiences in highly technological environments.

Since a smart education system is also used in the teaching process, we can consider these programs as Pedagogical software tools. Software planned for training in research (mobile learning tool, electronic textbook) should basically meet the following requirements. It is desirable to analyze the software used for preparation of pedagogical software tools (hereinafter, PSTs) PST and choose the optimal option.

Implementation of science-related information in PST various formats (.pdf, .mp3, .mp4, .hd, .swf and others). Give attention to the quality of the information which has given and the permanent appeal label for the shortcomings hyper conversion. In this case, if the deficiencies are found, the PSTs creator's e-mail address will be referred for suggestions and recommendations.

Professional interactivity in this case, the ability to self-assess in the process of teaching with PSTs education has been carried out through the graphics, text, audio, video content. Ensuring the consistency of the concepts which have been presented in the science and the implementation of a series on the basis of modules. Clear guidelines and tendencies for ensuring interdisciplinary integration. The handbook of using PSTs and the list of worldwide, local literatures. We have seen the main requirements for preparation of PST on the basis of above mentioned concepts (Жўраев, 2019).

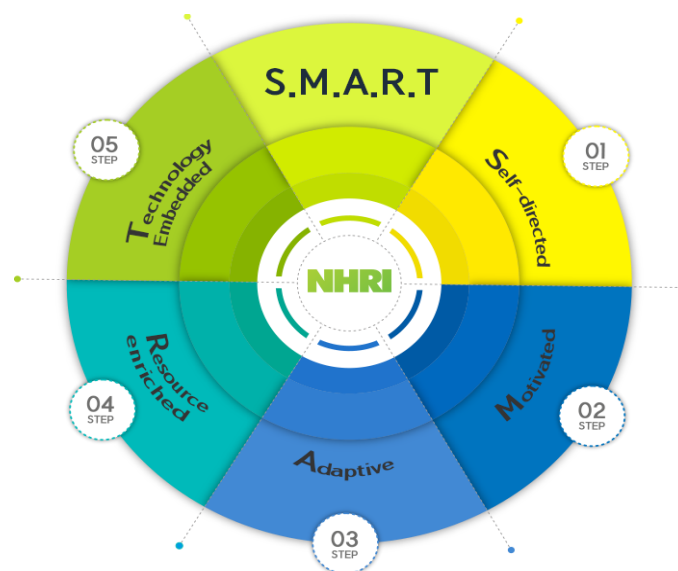


Figure1.Science Artisan

At Smart Education, students can learn scientific principles quickly and easily through modern two-way experiments based on IT technologies. Self-directed - learning-oriented Students make and implement their own study plans. Motivated - Experience-based creative learning-oriented Utilizes various activities and contents. Adaptive - Flexible and individualized learning-oriented Considers the level and aptitude of learning individuals.

Technology Embedded - Technology-based learning-oriented Creates the same learning environment in any place and any time. Since the science of transition in the SCIENCE ARTISAN SMART Education System is information technology, the artificial intelligence

loaded into the system is programmed only to teach the IT field. This means that the features of each subject can be used in the programming of smart learning systems.

## Results and Discussion

As a result of the study, an algorithm was implemented in the following order to formulate goals based on existing smart learning systems. Smart education system must make the same selection based on human knowledge for education in human activities: Nowadays, smart systems (IELTS, etc.) that perform such a process are more commonly used in the organization of paid courses. Smart learning systems should be designed at the level required by educational standards, maintaining the sequence and coherence of topics: Membership in smart education systems depending on the type of lessons (lecture, practical, laboratory, seminar, independent learning) must also be loaded into the system.

In smart systems, the learning process must be provided with different types of information: It is advisable to take into account the interests of the student, as well as age. At the same time, due to the fact that the student is interested in games in small classes, the presence of educational games in the system gives good results in mastering the lessons. The professional interests of older students are identified through a special survey in smart education, and literature and news on the profession will help the student become a professional in their field in the future. The process of assessing knowledge in smart learning systems: In this case, the system should take into account the logical approach to the process, so it is advisable to monitor the knowledge of the student. In addition, the process of assessing knowledge should not be based on the same approach.

The use of the usual test method in PSTs prepared by subjects can decrease the motivation of students to use software and to be tired of them. We can see from the world experience, interactive assessment in software applications which have been using in learning process, has been carried out in different types and explanation the one information in science to the user has been carried out in a few stages. The solution to the problem basically requires the implementation of different interactive assessment methods through information technologies, with approaching separately to each concept in the subject.

The requirements which are given above and carrying out them completely determine the efficiency coefficient of PSTs (Jurayev, 2020). In the assessment of knowledge, of course, the application of algorithms to encourage the student who has mastered well and the use of methods that motivate the student who has not mastered it, determines the level of intelligence of the system. Design of smart learning systems: Of course, once you have a smart system, you need to adapt the system interface to human psychology based on artificial intelligence status of smart learning systems in device memory. This is a very important task and is usually addressed in system programming, and the solution to this problem today is cloud technology. Proper memory allocation allows efficient use of the system and ensures timely communication between the user and the device.

## Conclusion

The requirements for smart education are, of course, simplified in the creation of a smart education system. In fact, for each of the above, a very large amount of information processing is done. In order to create such systems perfectly, it is necessary to thoroughly study the work done in the education system, the problems and shortcomings. The solution to the problem is mathematically modeled, then the algorithm is visualized and programmed. The use of smart teaching aids in the education system expands the opportunities for students to choose education and profession. It also liberalizes the notion of time in education in some way.

## References

- Jurayev, T. (2020). Interactive methods of assessment of knowledge on the basis of digital education on the subject "Information technology in education". *International Journal Papier Public Review*, 1(2), 71-77.
- Lee, R. S. (2020). *Artificial Intelligence in Daily Life*. Springer
- Ojino, R., & Mich, L. (2018). Mobile applications in university education: The case of Kenya. *Journal of e-Learning and Knowledge Society*, 14(1).
- Singh, H., & Miah, S. J. (2020). Smart education literature: A theoretical analysis. *Education and Information Technologies*, 1-30.
- Spector, J. M. (2016, March). Smart learning environments: Concepts and issues. In *Society for Information Technology & Teacher Education International Conference* (pp. 2728-2737). Association for the Advancement of Computing in Education (AACE).
- Tikhomirov, V., Dneprovskaya, N., & Yankovskaya, E. (2015). Three dimensions of smart education. In *Smart Education and Smart e-Learning* (pp. 47-56). Springer, Cham.
- Zhu, Z. T., & He, B. (2012). Smart Education: new frontier of educational informatization. *E-education Research*, 12, 1-13.
- Жўраев, Т. Н. (2019). Электрон Дарсликларда Билимни Баҳолашнинг Интерфаол Усуллари («Информатика Ва Ахборот Технологиялари» Фани Мисолида). *Современное образование (Узбекистан)*, 3(76).