

L. (Brassicaceae) Extracts // Polycyclic Aromatic Compounds. – 2021. DOI: 10.1080/10406638.2021.1886126.

2. Gai, Q.-Y., Jiao, J., Luo, M., Wei, Z.F., Zu, Y.G., Ma, W., Fu, Y.J. (B) Establishment of hairy root cultures by *Agrobacterium rhizogenes* mediated transformation of *Isatis tinctoria* L. for the efficient production of flavonoids and evaluation of antioxidant activities // PLoS ONE. – 2015. – 10. DOI: 10.1371/journal.pone.0119022.

3. Jiao Jiao, Jin-Xian Fu, Lan Yao, Qing-Yan Gai, Xiao-Jia He, Xue Feng, Yu-Jie Fu The growth, adventitious bud formation, bioactive flavonoid production, antioxidant response, and cryptochrome-mediated light signal transduction in *Isatis tinctoria* L. hairy root cultures exposed to LED lights // Industrial Crops and Products. – 2023. – 195. URL: <https://doi.org/10.1016/j.indcrop.2023.116496>.

4. Tillaeva G. U., Xakimzhanova Sh. O., & Nabiev A. X. (2024). Izuchenie biologicheskii aktivny`x veshhestv, soderzhashhixsya v sostave suxogo vodnogo e`kstrakta vajdy` krasil`noj // Central Asian Journal of Medical and Natural Science. – 2024. –5(1). – P. 391-397. URL: <https://doi.org/10.17605/cajms.v5i1.2340>.

5. Wakeel A., Jan S.A., Ullah I., Shinwari Z.K., Xu M. Solvent polarity mediates phytochemical yield and antioxidant capacity of *Isatis tinctoria* // Peer J. – 2019. DOI: 10.7717/peerj.7857.

6. Yu B., Lin F., Ning H., Ling B. Network pharmacology study on the mechanism of the Chinese medicine Radix Isatidis (Banlangen) for COVID-19 //Medicine.– 2021. – 100 (32). DOI: 10.1097/MD.00000000000026881

7. Zhang D., Du K., Zhao Y., Shi S., Wu Y., Jia Q., Chen K., Li Y., Wang R. Indole alkaloid glycosides from *Isatis tinctoria* roots. // Nat. Prod. Res. –2019. DOI: 10.1080/14786419.2019.1624960

8. Zhi-Yong Xua, Yu-Fei Xia, Wei-Yu Zhoua , Li-Li Loua, Xiao-Bo Wangb , Xiao-Xiao Huangc , Shao-Jiang Song Alkaloids and monoterpenes from the leaves of *Isatis tinctoria* Linnaeus and their chemotaxonomic significance // Biochemical Systematics and Ecology. – 2020. DOI:10.1016/j.bse.2020.104089.

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## ADVANTAGES OF USING ARTIFICIAL INTELLIGENCE IN ADAPTIVE LEARNING

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**Abstract:** The article is devoted to the application of artificial intelligence in the framework of adaptive learning. Its positive aspects have been analyzed.

**Keywords:** *artificial intelligence, education, modern technologies, adaptive learning.*

Adaptive learning is a structured system in which the educational process is based on an individual approach to each student.

Based on the fact that educational activities are adapted to the specific needs of the student, a better assimilation of the material is formed.

It is obvious that with the individual selection of educational material, the student's level of interest in the subject under study increases, since it is presented in a form that is convenient and understandable to him personally.

In order for personalization to take place more accurately and subtly, it is able to use artificial intelligence technologies that will analyze data about the student and make an individual training plan based on his academic performance. "Artificial intelligence is able to adapt to a number of essential parameters: the speed of learning, the level of knowledge, the projected goals, and to form a personalized track from the general database of available data" [1].

In order for the selection of material to be more effective, it is necessary to provide artificial intelligence with data on previous educational experience, difficulties encountered during training, emotional background, and involvement [2].

In addition to interacting with students, artificial intelligence can also be used to automate routine processes. For example, based on the data received from students, artificial intelligence is able to create an optimal class schedule. Also, using artificial intelligence, you can check test tasks, after which you can analyze the results obtained.

According to a study conducted by Adaptive Learning in Statistics (ALiS), despite the obvious advantages of using adaptive learning in educational activities, in practice it turns out that this approach is more difficult for students themselves than the traditional one [3].

The results of the study show that artificial intelligence has a positive effect on the development of adaptive learning. Despite the fact that the technology itself is imperfect, the emergence of artificial intelligence in educational activities contributes to the active development and improvement of the educational process and educational activities of both students and teachers.

### **References**

1. Исследование российского рынка онлайн-образования 2021 и тренды 2022 от лидеров отрасли // Нетология. Код доступа: [https://l.netology.ru/edteh\\_research\\_2022](https://l.netology.ru/edteh_research_2022).

2. АНО Цифровая экономика. Влияние искусственного интеллекта на образование/ Р.А. Амиров, У.М. Билалова // Управленческое консультирование. – 2024.

3. Yarnall, L., Means, B., Wetzel, T. (2016) Lessons learned from early implementations of adaptive courseware // SRI International. DOI: 10.13140/RG.2.2.36760.39688. Код доступа:

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## ESG INVESTING IN AGRICULTURE SECTOR

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**Abstract:** *The article deals with the development of a methodological approach specialized for the agri-industrial businesses to assess investment attractiveness, the application of which will allow them to get an objective idea of their current operational situation, prospects and to make appropriate management decisions.*

**Keywords:** *agriculture, ESG factors, investment attractiveness, sustainable development strategies.*

Nowadays, the policy of sustainable development of the agri-industrial sector is considered both in the context of solving global socio-economic problems (including improving the demographic situation) and in the logic of protecting state sovereignty by the country's leadership. The adoption of new federal initiatives to support the industry in the near future is facilitated by the concentration of the vector on import substitution in the agricultural sector and the expansion of agricultural exports.

However, ensuring the implementation of strategic tasks facing agribusiness organizations is impossible without attracting the required amount of investment. The situation is complicated by sanctions pressure from unfriendly countries, geopolitical risks, and uncertainty of the external environment, which may lead to a decrease in the attractiveness of agricultural companies for investors.

Therefore, in the current conditions, agri-industrial organizations need to develop a methodological approach to make the industry attractive for investors, the application of which will allow them to analyze their effectiveness, prospects and make appropriate management decisions.

The study showed that the main disadvantage of existing approaches is the accounting of retrospective data, mainly on the financial activities of business entities. In order to attract financial stakeholders, companies in the agricultural sector have to comply with sustainable development principles in order to neutralize institutional risks and risks of environmental pollution. A modern approach to assessing the investment attractiveness of an enterprise is a complex approach