



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in>)

Patent Search

| | |
|-------------------------|--|
| Invention Title | AI-POWERED SYSTEM FOR AUTOMATIC QUESTION VALIDATION AND QUALITY ASSURANCE IN DIGITAL EDUCATION |
| Publication Number | 42/2023 |
| Publication Date | 20/10/2023 |
| Publication Type | INA |
| Application Number | 202311066662 |
| Application Filing Date | 04/10/2023 |
| Priority Number | |
| Priority Country | |
| Priority Date | |
| Field Of Invention | COMPUTER SCIENCE |
| Classification (IPC) | G06N0020000000, G06F0016930000, G06Q0020400000, G09B0007020000, G06F0040295000 |

Inventor

| Name | Address | Country |
|-----------------------------|---|---------|
| Dr. D. Appala Naidu | Assistant Professor, Department of Economics, Atma Ram Sanatan Dharma College, University of Delhi, New Delhi, India, Pincode: 110021 | India |
| Dr. Rajusing Mahasing Patil | Head, Department of English, Vidya Bharati Mahavidyalaya, Amravati (MS), Amravati, Maharashtra, India, Pincode: 444602 | India |
| Dr. Vishnu Pundalik Shekhar | Professor, Department of English, Vidya Bharati Mahavidyalaya, Amravati (MS), Amravati, Maharashtra, India, Pincode: 444602 | India |
| Dr. Nellore Manoj Kumar | Independent Researcher, Founder & CEO, Infinite-Research Organization, B.O, 15-225, Gollapalem, Venkatagiri, Tirupati District, Andhra Pradesh, India, Pincode: 524132 | India |
| Dr. Shailendra Kumar Mittal | Professor, Electrical Engineering Department, GH Rasoni College of Engineering & Management, Pune, Maharashtra, India, Pincode: 412207 | India |
| Dr. Ganapathi Rao Gajula | Assistant Professor, Department of CSE (DS), Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India, Pincode:500043 | India |
| Dr. Katikireddy Srinivas | Professor and Head, Department of Computer Science & Engineering, Bonam Venkata Chalamayya Institute of Technology & Science, Bhatlapalem, Amalapuram, Dr B. R. Ambedkar Konaseema District, Andhra Pradesh, India, Pincode:533201 | India |
| Mr. Guddati Tatayyanaidu | Associate Professor, Department of Computer Science & Engineering, Bonam Venkata Chalamayya Institute of Technology & Science, Bhatlapalem, Amalapuram, Dr B. R. Ambedkar Konaseema District, Andhra Pradesh, India, Pincode:533201 | India |

Applicant

| Name | Address | Country |
|-----------------------------|---|---------|
| Dr. D. Appala Naidu | Assistant Professor, Department of Economics, Atma Ram Sanatan Dharma College, University of Delhi, New Delhi, India, Pincode: 110021 | India |
| Dr. Rajusing Mahasing Patil | Head, Department of English, Vidya Bharati Mahavidyalaya, Amravati (MS), Amravati, Maharashtra, India, Pincode: 444602 | India |
| Dr. Vishnu Pundalik Shekhar | Professor, Department of English, Vidya Bharati Mahavidyalaya, Amravati (MS), Amravati, Maharashtra, India, Pincode: 444602 | India |
| Dr. Nellore Manoj Kumar | Independent Researcher, Founder & CEO, Infinite-Research Organization, B.O, 15-225, Gollapalem, Venkatagiri, Tirupati District, Andhra Pradesh, India, Pincode: 524132 | India |
| Dr. Shailendra Kumar Mittal | Professor, Electrical Engineering Department, GH Rasoni College of Engineering & Management, Pune, Maharashtra, India, Pincode: 412207 | India |
| Dr. Ganapathi Rao Gajula | Assistant Professor, Department of CSE (DS), Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India, Pincode:500043 | India |
| Dr. Katikireddy Srinivas | Professor and Head, Department of Computer Science & Engineering, Bonam Venkata Chalamayya Institute of Technology & Science, Bhatlapalem, Amalapuram, Dr B. R. Ambedkar Konaseema District, Andhra Pradesh, India, Pincode:533201 | India |
| Mr. Guddati Tatayyanaidu | Associate Professor, Department of Computer Science & Engineering, Bonam Venkata Chalamayya Institute of Technology & Science, Bhatlapalem, Amalapuram, Dr B. R. Ambedkar Konaseema District, Andhra Pradesh, India, Pincode:533201 | India |

Abstract:

A computer-implemented system for the automatic validation and quality assurance of questions within digital educational platforms. Utilizing a sophisticated artificial intelligence algorithm, the system assesses questions based on predetermined criteria, ensuring consistency and relevance. Integrating machine learning and Natural Language Processing techniques, the system continuously refines its validation processes based on new data and feedback from users. Additionally, the system offers analytics performance, makes tailored recommendations based on learner profiles, and provides insights into emerging educational trends. The invention promises a transformative approach to maintaining high standards of question quality in digital education.

Complete Specification

Description:The present invention pertains to the domain of digital education and artificial intelligence. More specifically, it relates to a system designed to leverage intelligence algorithms and methodologies for the automatic validation and quality assurance of questions posed within digital educational platforms, ensuring that questions meet predetermined quality and relevance criteria.

Background of the invention:

The rapid evolution of digital education in recent decades has been nothing short of revolutionary. With the advent of online courses, e-learning platforms, digital classrooms, and more, there has been an exponential increase in the number of questions, quizzes, tests, and assignments that are developed and delivered digitally. These digital materials play a pivotal role in assessing a learner's understanding, gauging progress, and providing feedback. Hence, the quality of questions posed on these platforms has a direct impact on the effectiveness of the learning experience.

In traditional classroom settings, educators often spend considerable time and effort in crafting questions, ensuring they are relevant, challenging, and aligned with learning objectives. However, in the vast digital realm, the scale at which educational content is generated and the diverse range of sources from which it originates made manual validation of each question a daunting, if not impossible, task. This has led to inconsistencies in question quality across platforms, with many questions either too simple, too complex, or not aligned with the intended learning objectives.

Furthermore, the vastness of the digital education space has also resulted in a variety of question formats, ranging from multiple-choice and fill-in-the-blanks to more complex problem-solving exercises. The multiplicity of formats has added another layer of complexity to the process of ensuring question quality. Moreover, the dynamic nature of knowledge means that questions valid today might become obsolete tomorrow, necessitating continuous review and updating of questions to keep them

[View Application Status](#)



[Terms & conditions \(http://ipindia.gov.in/terms-conditions.htm\)](http://ipindia.gov.in/terms-conditions.htm) [Privacy Policy \(http://ipindia.gov.in/privacy-policy.htm\)](http://ipindia.gov.in/privacy-policy.htm)

[Copyright \(http://ipindia.gov.in/copyright.htm\)](http://ipindia.gov.in/copyright.htm) [Hyperlinking Policy \(http://ipindia.gov.in/hyperlinking-policy.htm\)](http://ipindia.gov.in/hyperlinking-policy.htm)

[Accessibility \(http://ipindia.gov.in/accessibility.htm\)](http://ipindia.gov.in/accessibility.htm) [Archive \(http://ipindia.gov.in/archive.htm\)](http://ipindia.gov.in/archive.htm) [Contact Us \(http://ipindia.gov.in/contact-us.htm\)](http://ipindia.gov.in/contact-us.htm)

[Help \(http://ipindia.gov.in/help.htm\)](http://ipindia.gov.in/help.htm)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019