Review Article

Challenges in Quality Education during COVID-19 Pandemic Situation

Dr. Suhas Vinayak Patil[1] and Dr. Rakesh Kumar Bhujade[2]

[1]*Principal, Government Polytechnic Daman*
[2]*HoD (IT), Government Polytechnic Daman* (***Corresponding Author***)

ABSTRACT

The educational institute suffered during the covid-19 pandemic. As the covid-19 affected to the human, all the government closes to the school and colleges. Many of the children could not go to the school for education. The higher education is also most affected because the students cannot take the practical classes. For the school education, many of the school and private coaching, training center start the online study. The village children could not take the services due to lack of facility like smart phone, internet connectivity, power backup etc. This paper presents research works on the online artificial intelligence-based education system, challenges and impact in the pandemic environment.

KEYWORDS

Education, Covid, AI, Machine Learning.

1. INTRODUCTION

The smart revolution has infiltrated in a wide scope of utilizations. Shrewd grounds, as the top of the line type of schooling systems, conveys state of the art data and correspondence innovations to improve the viability and productivity of grounds administrations. Under the pandemic of COVID-19, brilliant grounds has shown extraordinary significance inferable from its remote, customized, and universal highlights. This multitude of elements have made shrewd grounds a continuous serious examination point as of late, though existing audits on brilliant grounds were directed in before years and accordingly an update is vitally expected to research and sum up the arising information, advancements, and applications in this setting [1].

From March 2020, the Mathematics Support Center at University College Dublin, Ireland, and the Mathematics Education Support Hub at Western Sydney University, Australia, moved entirely on the web and have generally remained so with the eventual result of composing (August 2021). The emotional and quick changes welcomed on by COVID-19, specifically to completely online methods of educating and picking up including science and insights support (MSS), have given understudies and guides a large group of new open doors for thinking and working. This study expects to acquire understanding both from understudies and mentors about their experience of entirely internet learning and coaching in the COVID-19 time [3].

To restrict the extent of the survey, just advancement concentrates on connected with the forecast and control of COVID-19 are thought of (general wellbeing centered), and

which use formal improvement procedures or AI draws near. In this specific circumstance and supposedly, this overview work is the first in the writing with an emphasis on the expectation and control related advancement studies. These examinations incorporate improvement of screening testing systems, expectation, anticipation and control, asset the executives, immunization prioritization, and choice help instruments. After checking on the writing, this work recognizes ebb and flow holes and significant difficulties that upset the conclusion of these holes and gives a few experiences into future examination bearings [5].
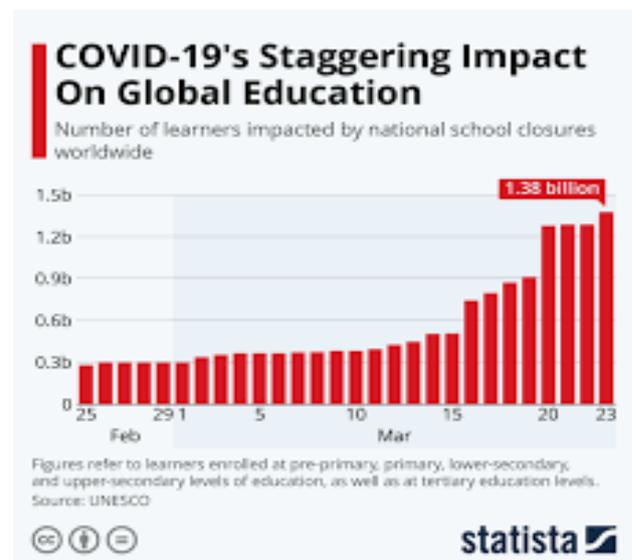

Figure 1: Covid-19 impact on education (google)

Nonetheless, understudies have wound up trapped in the present circumstance (unadulterated web based learning) with no arrangement or availability. Writing audits showed that understudies experienced a few difficulties that couldn't be quickly resolved[10]. Figuring out how to program in Primary Education has drawn in critical examination as of late. It is muddled however how programming conditions and dialects ought to be adjusted to youngsters to accomplish better learning and use, yet one pattern is by all accounts the utilization of Scratch[11].

2. LITERATURE SURVEY

Y. Zhang et al.,[1] presents directs a methodical survey on savvy grounds innovations and applications, and afterward decisively arranging them into various areas to explore the momentum research design. Also, sticking to the human-focused rule of shrewd grounds advancement, a human-focused contextual analysis has been completed.

H. E. Abdelkader et al.,[2] gives association FS strategies. In this association, a dataset was first gathered online by means of a survey of understudy audits on OL courses. Utilizing this data set, the presentation of covering FS methods in DM and arrangement calculations was broke down as far as wellness values. At last, the integrity of subsets with various cardinalities is assessed as far as forecast exactness. The discoveries of the current concentrate obviously support the notable combination of the presence of least number of highlights and an increment in prescient exactness.

C. Mullen et al.,[3] addresses a 'points of view' study, the thought being that before we analyze explicit parts of this experience, all things considered, let's know what the issues are. Utilizing a subjective examination structure of 23 one-on-one meeting records with mentors and understudies from the two foundations in Australia and Ireland, we distinguished five critical topics as vital to the common encounters and points of view of guides and understudies. In this review, we examine three of these topics according to the new typical determined to help MSS experts, scientists and understudies going ahead. The subjects portray the use of online help, how arithmetic is unique and the future of online MSS.

Y. Park et al.,[4] Many methodologies have been proposed to show the essential ideas of large information and man-made consciousness to K-12 understudies in light of square based programming dialects, like Scratch. Utilizing these methodologies, youthful understudies can undoubtedly encounter large information and computerized reasoning through a simplified methodology. In any case, it stays hard for them to perform more perplexing undertakings, for example, straightforwardly gathering information from the web or taking advantage of uniquely crafted AI calculations.

E. Jordan et al.,[5] presents an outline of a few vital outcomes from a group of advancement concentrates on that are explicitly connected with COVID-19, as revealed in the writing during 2020-2021. From these examinations, it is seen that since COVID-19 is a diverse issue.

A. Birk et al.,[6] The COVID-19 pandemic effects affected practically all parts of day-to-day existence, including instruction, where it prompted a quick and enormous change to web-based educating. There is proof that the reactions to the pandemic will have enduring impacts in advanced education and that they have sped up the pattern that (components of) online training will be the new ordinary in advanced education.

A. Altalbe et al.,[7] presents a quantitative examination technique. Relapse investigation and model appraisal were tried utilizing Smart PLS with the incomplete least square-primary condition displaying. The discoveries affirm the beneficial outcomes of the three aspects on the e-learning use in the two models (direct impacts and cooperation impacts).

P. Ghasiya et al.,[8] presents, examination of developing and generally revealed points/topics/issues and related opinions from different nations can assist us with better comprehension the COVID-19 pandemic. Our point displaying results featured that training, economy, US, and sports are the absolute most normal and broadly detailed topics across UK, India, Japan, South Korea.

M. Mircea et al.,[9] present recognizes and portrays the main advantages and difficulties connected with the reception of the IoT in advanced education. To break down the effect of the IoT reception in the instruction climate, the creators propose an appraisal model in view of six theories, including their definitions and depictions. They are approved against the Romanian advanced education framework, as well as a bunch of review information.

R. M. Nassr et al.,[10] presents the difficulties experienced by understudies of an administration connected college. Respondents were worried about the ramifications of lockdown on their presentation. The discoveries of this review demonstrate that an unexpected change to an unadulterated web-based elective makes significant difficulties to understudies who have no designs to be truly separated from classes.

J. M. Ocaña et al.,[11] presents proposition is that understudies matured somewhere in the range of 10 and 12 can profit from associating with an amicable learning sidekick utilizing p-code like Alcody. The theory is that understudies (matured somewhere in the range of 10 and 12) with information huge improvement in the scores of the understudies was recorded along with high fulfillment.

J. - M. Romero-Rodríguez et al.,[12] investigate the level of execution of the versatile learning procedure in Spanish colleges and to check the sociodemographic factors that impact the advancement of good showing rehearses in portable learning. Ten speculative connections were laid out and differentiated utilizing an underlying condition model. The example was comprised of 1544 college teachers from 59 Spanish colleges who were approached to finish a survey intended to assess versatile learning rehearses.

3. EDUCATION SECTOR RESPONDING TO COVID-19

In response to significant demand, numerous internet learning stages are sans offering admittance to their administrations, including stages like BYJU'S, a Bangalore-based instructive innovation and web based mentoring firm established in 2011, which is currently the world's

most profoundly esteemed edtech organization. Since declaring free live classes on its Think and Learn application, BYJU's has seen a 200% increment in the quantity of new understudies utilizing its item, as per Mrinal Mohit, the organization's Chief Operating Officer.

Tencent study hall, in the mean time, has been utilized broadly since mid-February after the Chinese government taught a fourth of a billion full-time understudies to continue their investigations through web-based stages. This came about in the biggest "online development" throughout the entire existence of instruction with around 730,000, or 81% of K-12 understudies, going to classes by means of the Tencent K-12 Online School in Wuhan.

Different organizations are supporting abilities to give an all inclusive resource to instructors and understudies. For instance, Lark, a Singapore-based cooperation suite at first created by ByteDance as an interior device to meet its own dramatic development, started offering educators and understudies limitless video conferencing time, auto-interpretation abilities, continuous co-altering of venture work, and shrewd schedule planning, among different elements. To do as such rapidly and in a period of emergency, Lark inclined up its worldwide server framework and designing capacities to guarantee dependable availability.

Alibaba's distance learning arrangement, DingTalk, needed to get ready for a comparable deluge: "To help enormous scope remote work, the stage tapped Alibaba Cloud to convey in excess of 100,000 new cloud servers in only two hours last month - establishing another standard for quick limit extension," as indicated by DingTalk CEO, Chen Hang.

Some school regions are shaping special associations, similar to the one between The Los Angeles Unified School District and PBS SoCal/KCET to offer nearby instructive transmissions, with independent channels zeroed in on various ages, and a scope of advanced choices. Media associations, for example, the BBC are likewise controlling virtual learning; Bitesize Daily, sent off on 20 April, is offering 14 weeks of educational program based learning for youngsters across the UK with famous people like Manchester City footballer Sergio Aguero showing a portion of the substance.

- A changing education imperative

Obviously, this pandemic has completely disturbed a schooling system that many declare was at that point losing its importance. In his book, 21 Lessons for the 21st Century, researcher Yuval Noah Harari diagrams how schools keep on zeroing in on customary scholastic abilities and repetition acquiring, rather than on abilities, for example, decisive reasoning and versatility, which will be more significant for achievement later on. Would the transition to web-based learning be able to be the impetus to make a new, more successful technique for teaching understudies? While some concern that the hurried idea of the progress online may have obstructed this objective, others intend to make e-advancing piece of their 'new typical' in the wake of encountering the advantages direct.

- The importance of disseminating knowledge is highlighted through COVID-19

Significant world occasions are regularly an enunciation point for quick development - a reasonable model is the ascent of online business post-SARS. While we still can't seem to see whether this will apply to e-learning post-COVID-19, it is one of a handful of the areas where speculation has not evaporated. What has been clarified through this pandemic is the significance of scattering information across lines, organizations, and all pieces of society. In the event that internet learning innovation can assume a part here, it is officeholder upon us all to investigate its maximum capacity.

4. CONCLUSION

This paper review about the education sector response and challenges during covid-19 pandemic. Various education private societies convert in online platform and grow in these days. The higher education has more affected due to online classes due to lack of the practical classes. The primary and middle education sector grows fast with good impact due to its theoretical concepts. Many of the website and apps designed based on the artificial intelligence and machine learning for the online education.

REFERENCES

[1]. Y. Zhang, C. Yip, E. Lu and Z. Y. Dong, "A Systematic Review on Technologies and Applications in Smart Campus: A Human-Centered Case Study," in IEEE Access, vol. 10, pp. 16134-16149, 2022, doi: 10.1109/ACCESS.2022.3148735.

[2]. H. E. Abdelkader, A. G. Gad, A. A. Abohany and S. E. Sorour, "An Efficient Data Mining Technique for Assessing Satisfaction Level with Online Learning for Higher Education Students During the COVID-19," in IEEE Access, vol. 10, pp. 6286-6303, 2022, doi: 10.1109/ACCESS.2022.3143035.

[3]. C. Mullen, J. Pettigrew, A. Cronin, L. Rylands and D. Shearman, "Mathematics is different: student and tutor perspectives from Ireland and Australia on online support during COVID-19," in Teaching Mathematics and Its Applications: International Journal of the IMA, vol. 40, no. 4, pp. 332-355, Nov. 2021, doi: 10.1093/teamat/hrab014.

[4]. Y. Park and Y. Shin, "Tooee: A Novel Scratch Extension for K-12 Big Data and Artificial Intelligence Education Using Text-Based Visual Blocks," in IEEE Access, vol. 9, pp. 149630-149646, 2021, doi: 10.1109/ACCESS.2021.3125060.

[5]. E. Jordan, D. E. Shin, S. Leekha and S. Azarm, "Optimization in the Context of COVID-19 Prediction and Control: A Literature Review," in IEEE Access, vol. 9, pp. 130072-130093, 2021, doi: 10.1109/ACCESS.2021.3113812.

[6]. A. Birk and D. Simunovic, "Robotics Labs and Other Hands-On Teaching During COVID-19: Change Is Here to Stay?," in IEEE Robotics & Automation Magazine, vol. 28, no. 4, pp. 92-102, Dec. 2021, doi: 10.1109/MRA.2021.3102979.

[7]. A. Altalbe, "Antecedents of Actual Usage of e-Learning System in High Education During COVID-19 Pandemic: Moderation Effect of Instructor Support," in IEEE Access, vol. 9, pp. 93119-93136, 2021, doi: 10.1109/ACCESS.2021.3087344.

[8]. P. Ghasiya and K. Okamura, "Investigating COVID-19 News Across Four Nations: A Topic Modeling and Sentiment Analysis Approach," in IEEE Access, vol. 9, pp. 36645-36656, 2021, doi: 10.1109/ACCESS.2021.3062875.

[9]. M. Mircea, M. Stoica and B. Ghilic-Micu, "Investigating the Impact of the Internet of Things in Higher Education Environment," in IEEE Access, vol. 9, pp. 33396-33409, 2021, doi: 10.1109/ACCESS.2021.3060964.

[10]. R. M. Nassr, A. Aborujilah, D. A. Aldossary and A. A. A. Aldossary, "Understanding Education Difficulty During COVID-19 Lockdown: Reports on Malaysian University Students' Experience," in IEEE Access, vol. 8, pp. 186939-186950, 2020, doi: 10.1109/ACCESS.2020.3029967.

[11]. J. M. Ocaña, E. K. Morales-Urrutia, D. Pérez-Marín and C. Pizarro, "Can a Learning Companion Be Used to Continue Teaching Programming to Children Even During the COVID-19 Pandemic?," in IEEE Access, vol. 8, pp. 157840-157861, 2020, doi: 10.1109/ACCESS.2020.3020007.

[12]. J. -M. Romero-Rodríguez, I. Aznar-Díaz, F. -J. Hinojo-Lucena and G. Gómez-García, "Mobile Learning in Higher Education: Structural Equation Model for Good Teaching Practices," in IEEE Access, vol. 8, pp. 91761-91769, 2020, doi: 10.1109/ACCESS.2020.2994967.