

IMPROVING E-LEARNING USING ARTIFICIAL INTELLIGENCE & MACHINE LEARNING(AI, ML)

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ABSTRACT:-

- ❖ There has been significant progress in the development of techniques to deliver more effective eLearning systems in both education and commerce.
- ❖ Artificial Intelligence sparks excitement about the future of how we teach and learn.
- ❖ In reality, though, AI has been a part of many e-learning platforms for quite a long time, helping us learn more efficiently.
- ❖ the fundamental components of an adaptive learning system designed to fulfil the objectives of the teacher and to develop a close relationship with the learner, monitoring and adjusting the teaching based upon a wide variety of analyses of their knowledge and performance.
- ❖ This is an important area for future research with the opportunity to deliver significant value to both education and commerce.
- ❖ The development of improved learning systems in conjunction with trainers, teachers and subject matter experts will provide benefits to educational institutions and help commercial organisations to face critical challenges in the training, development and retention of the key skills required to address new, emerging technologies and business models.

INTRODUCTION:-

- ❖ There appears to be considerable potential to form significant progress within the application of Artificial Intelligence (AI) to learning systems.
- ❖ A variety of AI techniques (Russell & Norvig 2002) can be applied in realtime to analyse learner behaviour, tailor learning components to learner abilities and knowledge, and to exploit the very large quantities of subject and student data available in both the education and commercial sectors.
- ❖ The development of learning systems in conjunction with trainers, teachers and material experts will provide benefits to institutions across the board, from career/vocational development, revalidation and re-training through to education and faculty .
- ❖ Bridging the gap between emerging techniques in AI and Machine Learning (ML) described in section 2 and the essential pedagogy (the theory and practice of education) has proven to be a significant challenge (Jenkins, et al., 2014).
- ❖ However, we believe that the opportunity to make step change progress is now much stronger with the convergence of several of the required components for success increasingly in place. These are:
- ❖ The availability of appropriate learning platforms, with almost all learners owning computing devices both inside and outside of the learning setting.
- ❖ The increasing quantity and quality of the data (subject and analytics) available to the analytical learning systems using AI.

- ❖ The technology (hardware and supporting software) is now powerful enough to handle and exploit the quantity and complexity of data and algorithms necessary for success.
- ❖ Institutions are putting more emphasis into this area – exploiting e-learning opportunities and looking for efficiency gains (Johnson 2014).
- ❖ Learners are increasingly interested in learning and developing their knowledge on-line at least in parallel with the traditional classroom /campus model.

E-Learning:-

A learning system based on formalised teaching but with the help of electronic resources is known as E-Learning.

It delivering and teaching through the internet. online lessons with your place through the internet. Books are gradually getting replace by electronic educational materials like optical discs or pen drives. The Knowledge can be shared via internet which is accessible 24/7 anytime anywhere.

Artificial Intelligence:-

Artificial intelligence refers to the simulation of human intelligence in machine that are programmed to think like a humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a humans mind such as learning and problem-solving. There is a lot of sites we can learn through anytime at anywhere through the internet. Udemy.com, Shaw Academy, NPTEL, Learn free.com, Study online.com

While the current evaluation of Education / Teaching techniques indicates that one-on-one instruction from human tutor leads to better understanding than either classroom or any other online lessons. But it is not always possible for every student.

An Artificial Intelligence in E-Learning is still of all basically in its infancy. The future of Artificial intelligence lies in its potential for making the most of all the elements that make E-Learning so promising.

One of the best benefits of E-Learning is that it allows students to learn at their own place and explore new things turned by simple searching.

E-Learning from an Artificial Intelligence tutor means that students are free to explore new things, topics in a depth and they test their knowledge in different scenarios rather than discussion on simple right-or wrong answers.

The E-Learning industry continues to expand, offering an ever-increasing array of E-Learning tools to companies, government bodies, and individuals.

Machine Learning:-

Machine learning is a crucial component of the growing field of knowledge science. uncovering key insights within data mining projects. These insights subsequently drive deciding within applications and businesses, ideally impacting key growth metrics. As big data continues to expand and grow, the market demand for data scientists will increase, requiring them to help within the identification of the foremost relevant business questions and subsequently the data to answer them.

Machine learning and AI stats;

Machine learning is the core of artificial intelligence, and its widely used in numerous industries.

Google's machine learning program is 89% accurate.

(Source google) With 89% accuracy, google deep learning program is 15% more effective than pathologists.

In 2017 Netflix saved \$1 billion by using machine learning.

Interesting AI statistic for 2021

1. AI –powered voice assistants to reach 8 billions by 2023.
2. By 2025 the global AI market is expected to be \$60 billions.
3. Global GDP will grow by \$15.7 trillion by 2030
4. AI can increase businness productivity by 40%
5. The number of AI startup’s grew 14 times over the last two decades.
6. Investment AI startup grew 6 times since 2020.
7. Already 77% of the devices we use features one from of AI or another.

CONCLUSION:-

The reach of E-Learning today is greater than ever with the most rapid growth in emerging economics trying to close the education gap.

The Combination of low cost, high convenience and accessibility are transforming E- Learning into the predominant global education force to 21st century. While it won’t come as any surprise that the E-Learning industry is growing and changing.

