

# A study on use of AI in enhancing the effectiveness of learning and development programs in the organization

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## ABSTRACT –

**PURPOSE-** The purpose of the paper is to understand importance of AI in learning and development programs.

**RESEARCH IMPLICATION-** This paper gives a brief about the topic AI in enhancing the effectiveness of learning and development programs in the organization. It uses various sources including research papers and online sources.

**FINDING-** With help of AI organizations can improve its employee productivity with the help of effective training and development programs.

**ORIGINALITY/VALUE-** This paper is written on the topic use of AI in enhancing the effectiveness of learning and development programs in the organization. Secondary research done describes that with the help of AI managers can

**KEYWORDS-** AI, learning and development,

## I. INTRODUCTION

Every day, technology evolves, becoming more capable of doing certain repetitive tasks more effectively than any person would. AI is now driving decisions on everything from grain harvests to bank loans, and once-unthinkable possibilities like fully digital customer support are on the horizon. AI-enabling technology, such as production tools, large computing capacity, and data storage, are increasingly evolving and becoming more available.

There are times when the organization face issues regarding their workforce, when they become redundant. To solve that issue the organization have two options: either they change the whole workforce with the ones that possess the required skill or they can create program which can help the existing employees to learn new skills and knowledge. There are a variety of things to weigh, ranging from job longevity and commitment to financial aspects and comparative advantages, as well as prestige and recruiting new talent. World Economic Forum suggest that old employees should be re-skilled as it would be cheaper For that the organization hold learning and development programs. Many benefit can be derived from these program

not only for the employee but also for the whole organization. Most of the benefits are discussed further in this paper.

### Research objectives

1. To study the meaning Learning and development programs.
2. To study the role of AI in Learning and development.

## II. TO STUDY THE IMPORTANCE OF AI POWERED ORGANIZATION.

### Hypothesis

H1- AI can be used to improve the effectiveness of training and development programs.

H0- AI can not be used to improve the effectiveness of training and development programs.

## III. REVIEW ON LITERATURE

1. **Janet Kottke**(1999) believes that the basics of good organizational training systems should include the need of core competencies, while suitable framework to satisfy these basic necessities would go beyond individual

improvement. To achieve these basic goals, the theory serves as a pedagogical tool. It serves as a way to collect intelligence, to encourage collaboration, to assist the development of problem-solving skills, and to assist in coming up with ingenious solutions.

2. **Rosenwald (2000)** This paper talks about how the companies now have a number of different plans in place for the growth and growth of their workers, it is imperative that the services be cross-trained and designed to maximize learning potential. The paper discusses how businesses were enticed to provide a benefit to their workers because they believed this would lead to a better overall job knowledge and schooling.

3. **Gebraman (2000)**. This papers explains that employee leaning and development programs provides a range of instructional methods, as well as a learning opportunity for staff to use their skills. A variety of training and learning programs exist to assist the organization in achieving its basic objectives: to promote a deeper understanding of the mission and activities of the company.

4. **(Basumallick, C. 2018)** The researcher explains how with the influx of AI it is easier to gather information from large volumes of employee data, with in-depth analysis, and thus increase individualization efforts insight is also offers greater insight into learner behavior and how thoughtful content can be produced by businesses. AI as also revolutionized the world of business and also has a huge impact on the learning and development programs instituted by the organization.

5. **Klinga, P. (2020)** The author explains The majority of initiatives within Learning and Development (L&D) are far from fully effective, says the study. The research revealed that the current state of training within financial services is characterized by a significant amount of manual and administrative work. The empirical evidence similarly reveled a wide array of opportunities for adopting automation and AI technologies into the respective learning work flows of the case companies. The study was conducted to study three case companies, all primarily operating in the Nordic financial services industry.

6. **Settoon, R. P., et al. (1996)** The aim of this analysis was to delve deeper into these interactions by looking at the relative contributions of employee–organization and subordinate–supervisor exchange indicators. The author tries to compare nested models, structural equation modeling was used. The author tries to explain that perceived organizational support is linked to organizational engagement, while leader–member exchange is linked to citizenship and in-role activity, according to the findings.

7. **Shekhar, S. (2018, November 12)**. In this article the author in details explains the meaning of training and development. Also the author tries the explain the importance of AI in any organization. He tries elucidate how AI can be used to enhance the way training and development programs are created and end the end how it can be used to enhance productivity.

8. **Huskin, E. (2019, December 13)** In this article the author tries to gives points about the benefit of Artificial Intelligence and how it has helped big co operations achieve success as well as how it has simplified the working of the organization.

9. **Arthur Jr, et al . (2003)**. Meta-analytic processes was used by the authors to analyze the association between specific training architecture and assessment features and organizational effectiveness. Authors tries to show that executive preparation would be medium to high. Limitations are also discussed in this paper.

### **SIGINIFICANCE**

In this research paper the author tries bring light to the importance of Artificial Intelligence when used in training and development programs in organization. Artificial Intelligence has helped in the society in a lot of ways and it has provided a lot of gains to businesses.

### **Research Problem**

In this research paper it was found that, AI is getting advanced daily and new technology comes into play very quickly that is why it can be very difficult to keep track of it. The ever so fast changing technology can be termed as difficult to do research on.

## IV. CONTENT

### Learning and Development

One of the most crucial source that an organization possesses in their human resources and in all sectors organization rely on their human resources heavily. Many times organization believes that to retain employees it is necessary to give them only financial incentives and to provide job security. But this statement contradicts the fact that the majority of workers put a high priority on the inherent advantages of their employment.

There is a need for constant change due to changes in the environment and for that it is important that the employees are flexible enough to accept the change. For this organizational have adopted learning and development programs. These programs are conducted so that the employees improve their productivity, learn new skills, become more innovative etc.

Learning and development are vital to the growth and progress of our company because it guarantees that our workers have the requisite expertise, experience, and abilities to fulfill their assigned duties (Fountaine, et al. 2019). With this the organizations can train the their employee with the specific skills and knowledge that can help the organization

Employee development plans must be comprised of key competencies and an acceptable framework by which companies grow their enterprises at the corporate level, according to the author (Janet Kottke ,1999).

The main reason for this exercise is that the employee gain knowledge, learn new skills, improve co operations among peers, improve innovative thinking, induce proactive behavior.

### Components of Learning and Development

There is no one-size-fits-all solution to improving employee preparation, but there are several key metrics to remember. A ideal employee training and development program should combine expertise, job advancement, and goal-setting. Employees must be offered instruction on a new job so that they can comfortably do it. It should be the organization's

duty to ensure that workers have the necessary expertise, experience, and talents, and that these skills are appropriate for the job. Furthermore, where workers need specific skills and training, it should be provided promptly (Garger 1999). The primary goal of career planning as part of an executive training program is not only to inspire workers to feel that their managers are invested in their jobs, but also to assist employees in balancing different facets of their lives and creating a consistent advancement path. Workers' job growth should be focused on a bright career path that employees would be make it a worth career and have the right value (Nunn 2000). Employees must identify their jobs, work goals, and existing abilities in order to accomplish this goal (Moses 2000). It is important that an individual keeps his/her knowledge and skill up to date and keep on learning new skills that would help enhance their opportunities . This also allows the organization to pay them higher salaries.

All the learning and development programs should be made in such a way that it serves the purpose of fulfilling the goals and objective, but at the same time help employees in an affirmative way which in turn help the whole organization.

### BENIFITS FROM LEARNING AND DEVELOPMENT PROGRAMS

#### 1. Career Competences

Employee training and advancement offers various incentives to staff. They develop the soft and technological skills that their occupations need. Unemployment has been at its lowest levels in 30 years, which makes it difficult for people to start new jobs when prospects for advancement are limited (Dobbs 2000). Professionals in the information technology industry recognize that expertise is power, and they must maintain their skills and talent in order to meet business demands. It is also expected of a recent graduate who is ill-prepared for the ever-changing market world (Gerbman 2000). Employee learning programs help workers prepare for the future and improve their ability to deal with emerging technology. The market for blue-collar employment has been consistent for many years, and many

businesses have prepared a list of applicants. Modification for difficult-to-learn applications and computer systems. This condition forces staff to assess their professional skills in order to keep their jobs. As a part of this situation, many workers have changed their behavior in order to be rewarded within their organizations and to function and improve outside of the organization (Feldman 2000). Generally employees know that these programs lead to higher remuneration options and other incentives.

This also helps the employees of the organization to achieve job satisfaction.

## 2. Employee Satisfaction

This condition forces staff to assess their professional skills in order to keep their jobs. As a part of this situation, many workers have changed their behaviors in order to be rewarded within their organization and to function and improve outside of the organization (Feldman 2000). Companies who are able to invest in their workers add value to working with them, even though the commitment favors the company in the long run (Wilson 2000) All these programs have helped organization achieve low employee turnover and also increase employee satisfaction (Wagner 2000). Loyalty to the corporation cannot be assessed, but it is important in terms of the inherent reward that workers feel. Employees are at home and continue to remain in their employer because they think their contributions and expertise are adding to the company's bottom line (Logan 2000). When employee of the organization have job satisfaction they start believing that their work has meaning and purpose. While pay and benefits are essential factors in hiring and retaining employees. Employees are constantly on the lookout for new opportunities to learn new skills, gain experience with new responsibilities, and seek personal and professional growth (Wagner 2000).

## 3. Employee Performance

Training impacts on employee attitudes and job skills, resulting in improved employee engagement and more constructive improvements (Satterfield and Hughes 2007), which helps to improve employee performance (Kraiger 2002). Arthur et al. (2003) performed a study of 1152

sample size from 165 services and found that, as opposed to no-training or pre-training environments, training has a reliably positive impact on job-related results. The advantages of a learning program are often linked to the workers' professional abilities. Davis and Yi (2004), for example, performed two experiments of nearly 300 people using behavior-model training and were able to dramatically enhance computer abilities. Psychologically practicing tasks allowed trainees to expand their acquired skills, skills, and activities. According to Barber(2004), on-the-job experience leads to superior novelty and tacit abilities. Employees must have strong technical and professional skills in order to do their jobs effectively. Employee efficiency will be improved by providing educational facilities.

## 4. Market Growth

Employee growth plans are critical for any company to remain solvent and competitive in the industry. Though it is costly for the company to expend money on their workers, this spending is good for the organization's business position.

Employee preparation schemes, on the other hand, come at a high cost but have a good impact on return on investment. Microsoft and General Electric Company are also very broad and successful organizations that see preparation as an opportunity (Kleiman 2000). The American Society for Training and Growth has found that businesses that spend an average of \$1,575 per employee on schooling had a 24 percent rise in gross profit and a 218 percent increase in sales per employee relative to those that spent less on employee training and development. Investing in professional development is a situation that is ideal for both individuals and organizations (Rosenwald 2000). Furthermore, workforce recruitment and growth initiatives not only raise an organization's benefit but also distinguish it in the native market.

## 5. Organization Performance

According to research on the topic, investing in a training and development program can be justified by the effects it has on developing individual and organizational

effectiveness (Bartel, 2000). Furthermore, previous studies have found a correlation between preparation and organization effectiveness (Blundell et al,1999). According to Blau(1964), the emotional agreement between employer and employee is the most important factor in organizational success. According to Gould-Williams(2007), organizations developed social exchange theory when they agreed to think for their workers' needs. Employees respond with constructive attitudes and actions that are respectful of their company (Settoon, Bennett, et al,1996).

#### 6. Employee Retention

Several companies have reported that providing resources for employees to further their learning is one of the characteristics that continue to attract them (Logan 2000).As a result, it has been reported that there is a clear connection between workforce growth and growth and employee retention (Rosenwald 2000).

Companies should understand that skilled workers are valuable assets, and they must face the task of maintaining them (Garger 1999). As a result, businesses that provide training and learning services to their employees have a better chance of attracting them. Sears also discovered that in areas where managers help their workers improve professionally, attrition is nearly 40-50 percent lower than in locations where managers are not present to do so (Logan 2000). Employee engagement is a win for companies that have employee advancement services. An successful training program design will also improve employee retention. Employee engagement is a voluntary effort by companies to develop an ecosystem that engages workers on a long-term basis (Chaminade 2007).

### **AI IN LEARNING AND DEVELOPMENT**

This requires the computer's capacity to interpret and use words, to memorise what it understands and reads, to use this knowledge to draw new conclusions and discover solutions, and to respond to changing situations.Before we dive into the information on how AI can power Learning and development it is important understand the meaning of AI - Artificial Intelligence.

Artificial intelligence is described as “the philosophy and implementation of computer systems capable of performing tasks normally requiring human intelligence, such as visual vision, speech recognition, decision-making, and language translation.”

Most concepts, in general, concentrate on four major areas: human thought, logical thinking, human behavior, and rational acting. Although certain things which seem to be entirely distinct at first glance, they are all part of the broader AI subject. To think and behave as a person, a machine must be able to be viewed as human-like in any case. This requires the computer's capacity to interpret and use words, to memorize what it understands and reads, to use this knowledge to draw new conclusions and discover solutions, and to respond to changing situations. AI is often used in conjunction with personalization. This is due to the fact that personalization is being increasingly integrated into our lives and involves us in content consumption. Music, images, social media, and online shopping are all personalised and delivered via personal devices. There are many representations of this in the world:Google search, Netflix reviews, Amazon coupons, and applications such as Google Assistant, Amazon Alexa, and Siri all use AI to increase the accuracy of information delivered to users. All of these programs make insightful recommendations based on our interests and past interactions, as well as the actions of related groups of people. This results in greater productivity and time savings by supplying the required information and removing redundant data (Goes, 2018).

### **AI IN LEARNING AND DEVELOPMENT**

Simply stated, artificial intelligence (AI) is a sophisticated method of processing information, a computer programmed to measure, simulate, and function in order to achieve specific goals.

To maximize the learning process and outcomes, L&D practitioners must remain on top of constantly evolving technologies, designing new learning methods and methodologies that take advantage of these developments, especially when it comes to AI.

Big Companies like Amazon and Google collect huge data from its users which help them insight into their businesses and also help them achieve personalized outcome.

The same thing can be accomplished with corporate learning events by using AI. It will keep track of various forms of learning events and save the data in the Learning Record Store can gather data from other internal digital environments, such as a business intranet. Documents such as resumes and CVs, as well as surveys containing knowledge on qualifications, training, and certifications, will also include details on pre-existing know-how. Personalized learning has a major influence on learning outcomes. Employees are encouraged to think about subjects that concern them in the manner that they prefer. Personalization enables learning to help serve employees jobs while still achieving corporate goals.

When it comes to AI solutions, data is everything, and it is the most logical part. When it comes to learning, the organizations can compile statistics on the amount of time spent learning, the resources used, and the success rates, for example. This will provide a stable base for learning personalization by tracking learning events, success metrics, and organizational data.

Once the data has been gathered, the exploration, simulation, and reviewing process will begin. The aim is to discover previously unseen trends and connections in your results. Organization should apply more specifics and information to the data to see if you can find any more links. Unsupervised deep learning algorithms can be used for this. Organizations should do further surveys and research to get a better understanding of the learners' behavior and what behavior contribute to increased or decreased commitment. Having qualitative evidence in the mix can help you understand the underlying behavior and root factors deeper. Even as opposed to practice in the area, AI-based tutors can increase learning efficiency.

#### Personalized learning experience

With the onset of AI, one-size-fits-all model is no longer in use. With AI, you can glean information from massive volumes of employee data, supplemented by in-depth

research, and thus facilitate the development of personalized learning initiatives. Learning insights also add to a greater view of learner behavior, which contributes to quantitative ability. Organizations will use the insights to produce intelligent and wiser placed content that is flexible, insightful, and attentive to a learner's personal journey. As a result, AI would revolutionize how learning material is delivered and maintained, resulting in better harmony with corporate principles.(Basumallick, C. 2018)

#### Virtual Learning

Virtual trainers use AI strategies to monitor learner development when evaluating the several mental steps on a learner's journey to training-estimating subject learning and retooling the curriculum when required. This systems may also provide input and advice, thus increasing learning productivity and prescribing tailored educational programs for a learner. Intelligent tutor programs are a low-cost solution that makes face-to-face mentoring more strategic and effective. (Basumallick, C. 2018)

#### Advance Analytics

Smart tutoring programs are a cost efficient approach that increases the effectiveness and strategic face-to-face mentoring. All of this will occur in a constant, stable, and real-time curve, resulting in a regularized method of review, tuning, and distribution. (Basumallick, C. 2018).

#### Training Content Delivery

The proposition is also accepted that AI will eventually replace a great deal of human work and positions in companies and industries. In reality, with the formation of collaborative AI/human hybrid teams, AI will be used as an augmentation to existing employees rather than a replacement. The same can be said for training delivery. While AI can take the lead in short-duration courses like compliance or technology overviews, it can also collaborate with human colleagues on more complex training material like certification, with AI automating certain training elements and humans providing unique input when needed.

Analytic data from the Learning Management System (LMS) allow AI to gain an understanding of learners needs

and provide recommendations for more training or for updated existing programs for increased use and applicability. (Shekhar, S. 2018)

#### Feedback from the learner

The collection of learner's input is important to ensure that training and growth efforts continue to be improved. AI has a chat-based link that can automate feedback/surveys on courses and training with questions for the topics covered. AI can also provide insight by analyzing the course or training elements most common and potentially improving areas. These use cases reflect a possible short-term deployment of AI in various training and development areas. Long-term cases and advantages of additional usage will arise as AI gains momentum through many corporate and university training classes. We might still be a few years from what AI thinks, but AI may allow people to get to know the here and now quicker and more effectively. (Shekhar, S. 2018)

#### **IMPORTANCE OF AI POWERED ORGANIZATION**

There are immense amount of benefits that can be derived when an organization is AI powered some are discussed below :

##### 1. Saves Money

Automation as a long-term solution is extremely cost-effective, as computers can perform tasks faster than human beings. This enables people to use their skills and time in the market, since computer education automates the growing areas of mental work. Tasks can be simplified by breaking down a certain task into smaller tasks, and computers can accomplish them in a short time. When businesses can perform more tiring tasks on computers, workers can concentrate on more difficult tasks, expand expertise and creative new ideas for business growth. In some cases it is possible to fully eliminate the need for human labor and physical resources, thus reducing wages and resources costs (Huskin, 2019).

##### 2. Helps to improve relations with clients

A strong customer relationship is central to a company that is purely based on good service and a loyalty and trust

relationship. AI is expected to work and deal with high volumes at all times of the day in some operations such as 24/7 Online Support. The tremendous rise in internal activities also helps in the efficient delivery of services. In order to increase the efficiency of processes such as schedule, abstraction, machine learning and more, companies should use applications, such as Spark. Hadoop is an excellent alternative for organizations using multiple programming languages or those needing synchronization of application run-time. An organization can envisage using technologies such as Hadoop and Spark together with other AI tools to help streamline processes (Huskin, 2019).

##### 3. Helps in improving employee creativity

AI removes a large number of boring and repeat tasks which allow employees to concentrate themselves on other tasks that add value to the company. Where an employee is not required to do AI technology tasks, it would have the time and effort to think more creatively, particularly in order to solve the challenges of the workplace. While many worry that AI can be replaced, experts and analysts expect that AI will generate more jobs in the future. The advantage of innovation is that workers will concentrate on the more creative and exciting aspects of their work as technology takes on basic, repetitive tasks (Huskin, 2019).

##### 4. Improves decision making

Most companies depend on data to make decisions which have a major effect on the company's future and reliable data ensure that the company runs optimally. Digital migration and automation allow techniques that decrease business collapse due to human error. The bigger the business, the more data is gathered and this involves precise measurement methods that can usually be done through AI and human aid (Huskin, 2019).

AI has been used for many year but the new problem. AI had promised huge gains for the entire universe. Nonetheless, amid the promise of AI, several organizations' attempts to implement it fell short. Thousands of executives have been polled about how their organizations use and organize IT and predictive analytics, but results reveal that only 8% of companies are active in key activities promoting

broad-based implementation. The reason being that most businesses have ad hoc pilots or apply AI in one phase only.

## FINDING

In this research paper the researcher has found out that Artificial intelligence has given a lot of benefits to the society and it has entered all our lives.

Even in business aspects it has helped in a lot of ways to the organization. A lot of companies have benefited from using AI. In this paper the researcher has covered the benefits of AI in learning and development programs. AI has improved the efficiency of these programs and also helped in the effectiveness of them. When organization have a well planned Training and development programs the whole company benefit from them as it helps the organization to improve the existing skills that their employee possess but also help them gain new skills, which will improve the productivity of the whole organization.

In this research paper it was found that, AI is getting advanced daily and new technology comes into play very quickly that is why it can be very difficult to keep track of it. The ever so fast changing technology can be termed as difficult to do research on.

## CONCLUSION

In this paper the research has covered the topic of AI and how it has effected our day to day lives in a positive way. The main points covered in this research paper was regrading the effectiveness of AI when used in training and development programs. It also discusses the increase in productivity levels of these programs due to AI.

Training and development programs are an effective way of improving the productivity of the employees without the replacement of the current employees. There are times when the current workforce of an organization is not competent enough to increase the level of effectiveness and efficiency of the organization and for that different organizations take different methods. One can be employment of new workforce and other is increasing the skills of the current workforce of the organization. The

latter one is cost effective and also helps in improving the productivity of the whole organization. AI is a very versatile tool and helps organization to prepare an effective program for the whole organization. AI has been a boon to the whole society and it has also affected how the business work.

In this research paper the author has proved H1 hypothesis correct.

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