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Lecture- 20

Lec 20: Learning and Development Programmes

Hello, learners. Welcome back to the course on AI in human resource management. We move to the second lecture of module six, where we'll look into one of the most important functions of HR today: learning and development, and how AI has integrated into it. I'm Dr. Abraham Cyril Issac. I'm an assistant professor at the School of Business, Indian Institute of Technology, Guwahati.

Now, when you look into learning and development, we had an initial understanding of human resource management as something which is essentially a function to recruit people or for basic selection of manpower. But things have changed. You know, how you condition the manpower, how you utilize or capitalize on them as a resource, how you train them, how you develop them. That's how learning and development as a core vertical has emerged in the industry in today's world. Now, when you talk about learning and development in HRM specifically,

Learning at work is all about acquiring new information. It's about mastering skills and adopting behaviors that lead to better job performance. Now, when you try to understand how AI has helped learning and development, you see that With the involvement of AI, performance has improved. The output has become tremendously efficient.

Now, when you look into AI and how it has impacted L&D, specifically learning and development, let's start by understanding what the basic requirements were. Requirements for learning and development—so let's look into that in greater detail. When you're looking into learning, as I mentioned, it's all about information: how you take up the information, how you actually delve into that, and how you perform based on

that. Now, when If you are looking into any company—be it any company—the human resources team has a special role. It helps employees grow and succeed. You can take as an example a workplace where people are constantly learning new skills and improving their knowledge.

Getting better at their jobs—this is what essentially learning and development is all about. You talk about learning: learning at work is significant. Think of it as learning by doing work. Many times, we use the word 'hands-on experience'—basically, it is learning by doing. Employees might attend, let's say, seminars, conferences, or hands-on workshops, or even read books or articles to expand their understanding. So this might involve something like leadership training. It might involve mentorship, job shadowing, or taking on challenging projects that stretch one's abilities altogether. So, unlike employees,

Learning, which is often required for current tasks, employees usually pursue development to unlock new opportunities down the road. So this is where the significance of development comes into the picture. And this is where it distinguishes itself from mere learning. So, together, Learning and development are the keys to helping employees reach their full potential.

And in turn, what we see is exactly what we understand as business success. Now, when you talk about L&D, what is the relevance of L&D in human resource management? We talk about employee retention. When you look into learning and development, as I already mentioned, it's about how you capitalize on your human manpower or how you capitalize on your human resources. Companies that prioritize learning and development are more successful at retaining their top talent.

There is no doubt about it. So when employees see their employer is invested in their growth and future, they are more likely to stay with the company, reducing turnover and retaining high-performing staff. When you look into the importance of L&D, you cannot simply ignore the engagement aspect. When you talk about learning and development, a well-designed program not only improves skills but also boosts employee morale. So

when employees feel they are growing and developing in their specific roles or assigned jobs,

They are engaged. They are more satisfied. This leads to a motivated workforce. We also have leadership development. You know, when you talk about L&D, you have to acknowledge leadership.

When L&D initiatives play a key role in identifying and nurturing future leaders, you are making potential leaders from your workforce itself. So by offering, you know, let's say targeted leadership training and development opportunities, companies can build a strong pipeline of skilled leaders, ensuring a good succession plan altogether and not to forget a sustainable growth for the business. You also see that there are some bridging happening with respect to the skill gaps that are already there in the company. In today's fast evolving business world, you'll agree with me when I say that keeping up with the technological advances and changing business models is vital. So organizations need to make sure their workforce is typically equipped to meet new challenges by providing opportunities.

So terms like reskilling or upskilling becomes very critical here. We also have future leaders being empowered by L&D programs. So that's what the training actually does to people. That's what the training actually helps people offering continuous learning and development opportunities typically. help create a workforce that is, you know, ready to take on more responsibilities and move into leadership roles.

So many organizations develop specific management training programs or, you know, management development programs or they tie up with academic institutions of great repute and they undertake this, you know, programs to empower the future leaders. So basically, when you see some CHRO programs or, you know, maybe some emerging CHRO initiatives, all this actually cater to empower the future leaders. There's also a possibility to adapting to change, you know, with the rapid pace of technological advancements. It's essential for employees to stay updated with, let's say, new tools, systems, approaches, etc.

So whatever we see, all the L&D programs typically ensure that employees are well prepared to handle all these particular changes. Now let's look into some of the strategies for effective L&D programs. You know, you have the training and development programs specifically where you look into improving employees' performance and behavior. So while development programs typically aim to build broader skills, maybe like problem-solving or people management, technical knowledge for future roles, all these aspects.

When you look into, you know, PDPs, performance development programs, what you understand here is that these programs typically involve pairing employees with mentors or coaches, for that matter, who guide them in improving their performance and growing professionally altogether. So mentorship is an effective way of continuous learning and skill development. We also have some potential e-learning and online courses as one of the mediums. Now, organizations can typically offer employees access to online courses, which is what you are specifically doing now.

Being in an organization, if you want to develop your skills, you want to get updated, you want to see, let's say, what was the drive or what was the motivation underlying your decision to attend this particular course? This is what e-learning and online courses are about. So I don't need to explain further on that. You'd look into skill assessment and development plans as one of the strategies for effective L&D programs. Regular skill assessments help identify gaps in employees' competencies.

Organizations can then create very personalized development plans to address these gaps, actually fostering ongoing skill improvement. You also have some knowledge sharing platforms. When you look into internal platforms where employees can actually share ideas, most of you are working would actually acknowledge that there might be some best practices or lessons learned there. which can be actually shared and it typically promotes the collaborative learning. So these platforms typically support remote workforces and they offer tools to track user engagement and learning progress.

You also have some of the collaborative projects as one of the strategies, you know, when you talk about encouraging, let's say something like cross-functional collaborations.

Cross-functional collaboration would be the word on projects provides employees with opportunities to typically learn from, let's say, their colleagues in different departments, enhancing the continuous learning and skill growth. Also, possibilities are there with respect to the recognition and rewards as a strategy. recognizing, rewarding employees who actively participate in learning. And let's say some of the upskilling activities actually motivates others to do so.

So let's say you are attending this course, you are spreading the word. Your colleague or your peer also would have, I will not call it a peer pressure, but rather a motivation to attend such courses or increase the profile or improve the resume altogether. When you look into learning and development, let's understand the methods for implementing L&D programs first. We have a cycle starting from need assessment. Then we go to coaching specifically.

Then we have the remote training possibilities. There is also experiential learning that is coming up in a big way. Cross trainings are existing. Now, skill building is there. You also have mentoring as a significant training initiative.

You also have diverse learning methods. So when you're looking into implementing L&D programs, most of the people who are associated with the L&D vertical in organizations within the HR domain. They will acknowledge and appreciate the fact. But again, this is beyond the scope. We'll typically come out with the leadership.

We'll typically come out with a learning and development course very soon. But that's not the intent here. I just wanted to introduce you to these implementation methods so that how AI gets integrated will be more clear to you in the later part of the lecture. When you look into the crux of today's discussion, let's start from contributing factors for AI-based learning. Now, when you look into such a headline, you have to think and understand the technological competency.

The effectiveness of AI-based learning relies on the learner's ability to understand and use the technology effectively. Let's say AI is coming big time, but your organization—none of the members who are part of it—know anything about AI. Then how effective would AI be in your organization? What good would AI, or any technology

for that matter, do for your organization? So, let's understand an example: as I mentioned, familiarity with AI systems and necessary technical skills.

It could be something like coding, programming, or AI frameworks. Or even big data analytics and algorithms. So, if learners are proficient in these technologies, they are better equipped to benefit from AI-driven learning tools. So, basically, we are talking about a sort of digital literacy that we need to have. Learners need to possess the ability to effectively use digital tools and platforms.

So, digital literacy includes knowing how to navigate technology, learning management systems, interact with AI-enhanced content, and use devices—like computers or smartphones—to engage with AI-powered learning resources. We also need to have engaged and motivated learners. Just having technology or competency does not matter. We need to have engaged and motivated learners.

AI-based learning is most effective when learners are engaged and motivated. So, AI tools that typically incorporate interactive methods, such as simulations or role plays. Games help in maintaining high levels of learner engagement, which we have typically seen from different research studies altogether. So, these interactive elements can make learning more appealing, driving greater involvement from participants. You also have the possibility of collaborative skills. You know, AI-based learning also thrives on collaboration. Learners who can work effectively in teams and communicate well in digital environments are more likely to succeed. You have the possibility of, let's say, personalized learning experiences.

You know, AI typically allows for customization and adaptive learning, meaning it can tailor content to fit individual learning needs. When you talk about learning needs, you also have to understand the possibility of continuous learning and improvement. AI can assess the learner's understanding and adjust the difficulty of tasks based on their typical progress. So, the ability of AI to provide real-time feedback helps learners identify their mistakes, correct them, you know, fostering a continuous learning cycle. So, this adaptability essentially makes AI-based learning more dynamic and ongoing. So, we

cannot always just end our discussion of contributing factors there without considering the alignment with organizational vision. You know, many a time I've tried to point it out

based on the strategic intent. Successful AI-based learning requires organizational alignment, where both learners and leaders understand and support the AI tools being used. So, leaders need to ensure that AI tools learning tools align with the company's goals, and they should educate and motivate employees to participate actively in all these typical learning processes. Now, when you look into learning and development, let's understand the innovations that have happened for learning and development functions.

The first one is NLP. AI-powered NLP actually helps in analyzing large amounts of natural language data. This typical technology has been discussed immensely in our previous modules. This technology can assist in creating personalized learning modules by converting, you know, typically speech into text, allowing for better course design. So it is also typically useful in understanding learner behavior and feedback essentially through data analysis.

There could also be the possibility of ANN, artificial neural networks. When you look into ANN, it can be applied for, let's say, facial recognition or speech recognition systems. So these technologies can identify and track learners, making assessments more interactive and customized. We have what we always see, IVRs, Interactive Voice Responses. IVR systems offer voice-based learning assistance, particularly helpful for employees who have reading difficulties.

It can also be used, please note, to deliver training through voice commands, making learning accessible to a broader audience. You also have the TTS, text-to-speech and speech-to-text options. Which makes it easier to create learning content and interact with course materials. You have the technology-enhanced learning, TEL, technology-enhanced learning innovations could include anything from learning analytics, which help track the learner's progress, engagement, and activity. So learning analytics allows L&D professionals to analyze data and make

Typical strategic decisions are based on the learner behavior because these are essentially the human resources. These are essentially the assets of the company, so you have to

make strategic decisions based on the learner behavior. You have some robots, you know, which are AI-enabled robots that can actually play a role in social learning environments, typically assisting learners with tasks or interacting with them. And even recognizing the emotions. So they may provide hands-on learning support and engage learners in new interactive ways. Now let's look into AI adoption functions of L&D specific to career coaching. You'll see that AI can play a significant role in career coaching by offering personalized guidance based on an employee's skill set, performance, and career aspirations.

So AI tools can typically analyze past career trajectories—what you have done, what you have been through, what was the organization you were associated with, what was your role, what was your performance there—the market trends, skill requirements to provide tailored advice on career progression. AI can also support continuous development through automated feedback systems and virtual coaching platforms, making it real-time, accessible, and scalable. You also have ROI tracking, you know. When you look into AI, it can track the ROI of L&D programs by evaluating employee performance and typically linking it to the specific training initiatives. Using data analytics, AI measures improvements in productivity, efficiency, and job satisfaction after training sessions, so it helps organizations quantify the impact of learning on business outcomes.

So providing real-time insights into the effectiveness of the L&D investments. You have personalized learning problems. You have personalized learning. You know, AI-driven platforms use AI algorithms to deliver personalized learning experiences tailored to each employee's needs and learning style.

So AI can, let's say, recommend specific modules or analyze data on employee behavior, report on learning progress, the courses that are required, and the materials that are needed. So basically, it creates learning paths that align with personal growth objectives and business needs, ensuring that employees receive relevant and timely training. It also helps in employee interaction. When you talk about employee interaction, you see that AI enhances interaction in learning environments by facilitating dynamic communication channels.

Let's say something like chatbots or virtual assistants, for that matter. They can actually engage employees, answer their queries, and guide them through learning modules. There are possibilities for designing the learning process. When you talk about designing a learning process, you see that AI supports instructional designers by streamlining the creation of learning modules. NLP and other AI technologies can assist in converting content into learning materials.

Such as, say, by transcribing speech into text or creating automated quizzes, for that matter. So I will detail the AI tools. But what comes to my mind now is AI tools like Articulate or Moodle, which assist in designing structured, data-driven learning processes that are responsive to learner feedback. You also have the evaluation of learning tools. Aptitude and memory testing—you know, AI typically facilitates the evaluation of learning aptitude and memory through techniques like learning analytics, data mining, etc. So AI systems can Assess the learner's typical engagement, activity, and progress by tracking their interactions with learning materials altogether.

Also, there are testing possibilities, learning progress, and effectiveness. You know, when you look into AI systems, they can monitor and measure a learner's progress and the overall effectiveness of training programs by collecting and analyzing data specifically. You will see that a learner's performance is typically identified by AI, along with their gaps in understanding, and adjusts the content or delivery to improve effectiveness. You also have the possibility of helping learners identify mistakes and suggesting corrections.

You know, AI-powered tools are capable of identifying errors in learners' work and offering suggestions for improvement. So, through AI-based feedback systems, Learners can receive instant notifications about their mistakes, allowing them to correct their understanding and performance. These systems also typically suggest better approaches, further enhancing the learning experience altogether. For example, platforms that use AI can analyze written assignments or quizzes and provide information, detailed, targeted feedback will be part of this. So these are some of the typical AI adoptions in functions of L&D.

You look into career coaching, which you have seen, employee interaction, ROI tracking, designing the learning process, or even testing learning progress and effectiveness. All these typical aspects look into the AI adoption in functions of L&D. Now, having seen that, let's look into the benefits of AI in L&D before we actually venture into some of the typical tools when you talk about AI.

Why should we actually integrate AI into learning and development? Learning and development would have happened otherwise as an organic process. There could be a school of thought like that. Or learning and development is essentially a personalized thing. Why are you bringing a technology or technology-enabled system to actually increase efficiency?

Let's say that's the argument, but Is it actually doing some good? Let's look into the benefits of AI in L&D. When you look into the benefits of AI in learning and development, the first and foremost one is definitely enhanced efficiency and effectiveness. AI can typically automate and streamline various processes within the learning and development vertical altogether, making them efficient.

Quicker, more accurate, and less costly. This efficiency typically allows organizations to manage learning programs for large audiences simultaneously, which is especially beneficial in corporate training scenarios. You have the possibility of advanced data analytics. When you talk about the benefits, you cannot ignore advanced data analytics. AI can leverage all these learning analytics to evaluate and track learner performance.

This typical data-driven approach helps organizations measure learning outcomes, identify gaps in knowledge, and make informed decisions about future training needs. For instance, let's say AI can assess a learner's progress and provide real-time feedback. It's part of advanced data analytics. There is a possibility of personalization of learning experience, as we have already looked into the periphery of this personalization experience a couple of slides before.

AI technologies typically enable personalized learning experience to tailored to individual learner needs. So by analyzing data on learning styles and preferences, AI can suggest customized learning paths, resources and activities, increasing learner

engagement and effectiveness. There's also a possibility of improved engagement and motivation when you look into the use of AI-driven tools that can create a more stimulating and enjoyable learning environment, which can typically lead to higher motivation levels. There's a benefit of scalable learning opportunities.

You're looking into AI-powered learning platforms such as this, massive open online courses, MOOCs. We have these platforms which allow organizations to offer training to vast number of employees across various domains. So these scalability makes it easier to disseminate knowledge and skills organization wide. When you also look into the benefits, you have to acknowledge the real time feedback and support. AI systems can provide instant feedback to learners, helping them identify the mistakes and suggesting corrective actions immediately.

There could be a possibility of facilitation of collaborative learning, which we have seen. Creating platforms for knowledge sharing, promoting collaborative learning, enabling employees to exchange ideas, their best practices within the organization or outside the organization. Organizations can cultivate a culture of continuous improvement and teamwork. There could be a benefit like support for diverse learning needs. When you talk about artificial intelligence, AI can certainly adapt learning materials to suit different education levels, making it easier for less experienced learners to engage with complex subjects.

Let's take an example of IVIA, the interactive voice response systems that can assist those who struggle with reading or comprehension, as we have seen. Identification of skill gaps, yet another important benefit. AI tools can analyze workforce capabilities, pinpoint areas where additional training is certainly required. So this typical insight allows organizations to proactively address skill shortages and ensure that employees are well prepared for the future challenges. You also have the continuous learning, facilitating continuous learning.

With e-learning platforms and online courses, needless to say, employees can typically pursue further education at their own pace. So somebody who is doing such a course now, I don't have to explain it further. Now let's look into the main theme of today's

lecture, which is all about the AI tools for L&D. We have different possibilities, different available tools. Again, this is not an exhaustive list.

Also, I would suggest that you explore each of this because there are some paid versions associated with that. I'll try to give you some initial idea into these tools. What are they, how they perform and what are the benefits of these, what you can actually use them for. It's based on your requirement. You have to scope down to one or two or whatever tools you actually require.

So my intention here to make you aware about these tools, make you understand what these tools, at least some of them can do. Ajumi AI is all about AI generated lessons. intelligent insights and seamless integration so this tool typically helps create high-impact training at scale making it easier for learning and development teams to deliver effective content quickly you have one of the most you know common or I'll say one of the most famous or one of the most used Effy AI is AI generated reports, heat map analysis and ready to use templates. You have to thank Effy AI for that.

It provides visibility over performance evaluations and it certainly helps identify skill gaps for internal development. There is something called as better up. You can explore it further. AI driven coaching is provided to identify employee strengths and areas for improvement. It facilitates

Tailored development programs enhance employee engagement and productivity. You have SAP Success Factors Learning. It is all about personalized learning paths and AI-driven recommendations. So it integrates learning into the employee lifecycle, ensuring compliance training is relevant and accessible.

You have the Edcast LXP. Talk about this. It's all about AI search capabilities and a recommendation engine for personalized content delivery. So it organizes and curates learning resources efficiently, enhancing the user experience. You have Cegid which identifies individual learning styles and generates personalized learning structures.

So it reduces the time required to customize training programs, allowing for more effective learning experiences. You have Adaptemy, which generates custom learning

paths and integrates with existing systems, facilitating a smoother transition to personalized learning approaches within established frameworks. You also have, finally, the NovoEd, which is all about customizing learning paths again for teams. with collaborative features.

So it supports group learning initiatives while addressing individual needs, enhancing overall team performance. So let's quickly look into one in detail specifically. We have certainly looked into the different possibilities here. I'm looking into Effy AI. let's do a performance review or how it is done i'm just giving you some screenshots so that you will be able to understand the depth it can go step one is go to review section and click on create this is how the platform actually looks like it will take you to the section where you set up and launch your review cycle typically again if you venture further you'll see that

Step two is about a lot of possibilities. You have a 360 degree feedback. You have a 360 degree feedback. Peers are nominated by the manager. Options are there.

So it will take you to the section where you can set up and launch your typical feedback, 360 degree feedback in terms of whether you want it with peers nominated by manager. Then you have the starting review process. We have in step three, when you look into the review process, who will provide feedback? So you can give a list of reviewers who will provide feedback. So review peers who will be the essential stakeholders.

You can actually check them. No, you can actually give an option. Maybe you don't want the peers. Maybe you don't want the direct reports. You you just need the review.

A self review provides an opportunities option. You just need a self review or maybe you just need to hear from your manager so you can look into the possibility there. Then you have another significant process whereby you choose the review template. starting review you can view and edit the templates for self review let's say if you have chosen prepare review in the previous then it is applicable otherwise not similarly for direct reports review and also managers review so when you see you know these platforms you can choose the review templates for for the different possible reviews that you have been selected or you have selected already then you have a possibility of you know choosing a

starting review starting review is all about you know let's say performance snapshot for self review if it is in the case of self review if you have selected for peer review performance snapshot based on peer manager peer manager review if it is direct report also so this is again you can see the progress here how you're going forward with the review process then you have the performance review generally done in terms of uh likert scale let's look into a typical question

Given my recent performance, I deserve the highest possible salary and bonus. You have to select one. If it's a self-review or as in case of manager, he will be or she will be doing it. Explain the choice. This will certainly help things get streamlined and will try to give a measure of the latent variable or whatever performance you are actually measuring about.

So next you have the II typically, which is an option that takes you to template. You choose for your review. You can edit it according to your preference. Based on that, whatever, again, the review process is, you can go forward with respect to that. Then it appears something like this, the performance snapshot for self-review.

You will definitely get given my performance. I deserve the highest salary. So it's a possibility of linear scale or comment. This is a template of performance. how the review appears in terms of what you have actually given as an input you also have again who will receive the feedback let's say one or more reviews are employees who will receive the feedback so basically your review is could be you know maybe your manager if you're self-reviewing it does not make much of a sense here but whoever is a possible review whatever options you want to give you can actually give it here you move further you have option to choose the reviewers who will actually provide the feedback which includes you know peers you will have a drop down or based on the database available you can actually look into who is review you can give options for review the peers direct reports a manager whom you want to actually take the review from so there's whole lot of possibility that comes with this template And we move further. We can have another possibility. You can see that we are scrolling ahead. It checks the notification text, edit them if necessary.

So basically you can text and edit the notification text for each review if necessary. And then we move forward. Choose the level of access to the review results. So let's say you are a person who does not want to give full access to your review or say let's say direct manager. So that option is also available.

Do you want to give full access to the report or you only want to give a limited access? You can customize that based on your intention, your requirement. And who else can administer the review? You are more generic here. You can look into the people who can actually review.

Let's say you feel that a cross-functional review will actually help you. You can definitely pull out the person's name and assign him for the task and he or she can actually review you further. Then again, the same process happens. You know, it it is all about, you know, setting being double checked. And finally, you're good to go.

So basically, you have performance review. The flow could be 360 degree feedback based on what we discussed. And let's say you have opted for review on a self review basis or somebody has been specified. manager, peers, direct reports, whatever options you are given, who is having the access to all these things are laid down. Then you are starting the review.

So you're all set. This is how you actually initiate the review process. So this is a holistic process or path to understand or to explain about what or how things are being executed in such a platform. You also can nominate peers for your teammates, you know, choose who will provide feedback for your teammates as part of the review. So possibility of that is also being given in a Effy AI.

So basically you can go to the homepage and you can nominate peers for your teammates and write reviews. So you can select peers for review and then you can proceed forward. So what you understand as a final result maybe is that or how many reviews have been obtained, how many in progress, if any. So what all are there with respect to the obtained reviews, the cycle, review feedbacks, reviewer status. And of course, the timestamp will be will be critically available to you.

So, again, you look into the performance review. You can actually pull out a summary. You can have results statistics. You can have details of what you have actually obtained. So these are some of the possibilities with respect to the Effy AI.

So, again, my intention was to walk you through a platform which typically integrates AI into a function—HR function. So when you are looking into learning and development, you have to understand that learning and development is certainly a measure of where you are and where your company wants you to be. So, let's say the company wants you to be at delta X and you are at X. So, this bridging of the gap—this gap—how it is getting bridged is What makes an L&D or learning and development vertical relevant? Now, we have seen the benefits of AI. We have seen the innovation potential of AI that can happen with respect to the entire scheme of things when we talk about learning and development.

But please do understand that learning and development certainly will have a human element, but it can change. aided. It can be helped, or AI can typically facilitate based on the available data. Based on the analytics, it can say that, okay, this is a particular training that is required, or a set of manpower is, you know, having a shortcoming in, let's say, soft skills. So, training has to be given in that. So, this is the way it can be actually done and Trust me, this is more transparent, and it is more effective, and it is faster. We'll see more insights about AI in HRM in the next class. Till then, take care.

Bye-bye. Amen.