

Course Name: AI in Human Resource Management

Professor Name: Prof. Dr. Abraham Cyril Issac

Department Name: School of Business

Institute Name: Indian Institute of Technology Guwahati

Week- 06

Lecture- 21

Lec 21: Disruptive Innovation in HRM: Future of HRM

Hello learners, welcome back to the course on AI in human resource management. Today, we move to the last lecture of module 6, where we look into disruptive innovations. When we talk about AI, is it a disruptive innovation? Let's understand it based on the future of HRM, the future of human resource management. 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 disruptive innovations—or, you know, many times we hear this term 'disruptions' within the industry. What do you mean by disruptive innovation? Disruptive innovation is something that changes the industry altogether. There has been some routine way of doing things or some routine way of executing certain aspects.

Suddenly, there is some technology that comes in and drastically changes the entire industry. This is what disruptive technology is. We have seen it with the advent of computers or the internet. It has been happening for some time now. Now, let's examine whether AI is going to be a disruptive innovation.

Now for that we'll look into AI, the impact of AI specifically. When we understand it as a disruption or is it actually a disruption or it is just a precursor of something else. But for that, let's first understand what do you mean specifically by a disruptive innovation. When you talk about disruptive innovation. It is, as I mentioned, a technology which refers to innovations that replace, you know, the existing technologies.

When you talk about if I have to define disruptive innovation, it is nothing but it begins with simple applications at the lower end of the market and gradually moves upward. And if I have to credit this, I have to credit this to Christensen. Who introduced the term in the book, the innovators dilemma. If you have read the book, the disruptive technology actually gets the reference from there. So he differentiates between sustaining and disruptive technology.

So disruptive technology refers to innovations that replace the existing technologies. Christensen goes further. He emphasizes that current changes and innovations are rooted in technology. So companies can lose market leadership even when following best practices if they fail to embrace the disruptive technology. It is not the traditional wisdom that says that, you know, you have the best practices, you will survive.

But rather, if you are not adapting to the newer technology that is emerging, you may actually collapse as a company. Research shows that organizations react to disruption by adjusting their resources, processes, and culture. Now, when you look into disruptive technology in HRM particularly, you will see that human capital is considered a differentiator. Human capital is considered a

Often, we understand human capital or human resources as a crucial asset for organizations, providing a competitive edge that is hard for competitors to replicate. Managing human capital effectively is essential for driving growth in the era of technological disruption. When you talk about human-centric development and growth, we tend to understand technology in HRM, which will be seen in further slides. But I would like to focus on this EHRM part. The adoption of electronic human resource management (EHRM), allows for improved control over employee performance and behavior through technology. EHRM transforms typical HR functions, making them more strategic, efficient, and aligned with organizational goals.

When we examine HR competence in technology, we see that HR professionals need new skill sets. These include innovative reasoning, as you can see. They include data analytics, design thinking, and technological competency—all these aspects are necessary to adapt to disruptive technology.

So these skills enable HR to contribute strategically to business outcomes. When we talk about technology, disruptive technology specifically in HRM, we also have to understand the strategic role of technology. The integration of technology into HR practices typically helps reduce, you know, operational costs. It improves recruitment and retention. Please note recruitment and retention.

This is vital because otherwise, you are going to incur a lot of recruitment costs. So it enhances overall service delivery also. So please note, you're talking about disruptive technology in HRMS as a strategic role, as a strategic asset. When you look into the outcomes of EHRM, specifically the EHRM which I introduced to you in the previous slide, organizations implementing EHRM typically achieve better operational efficiency, improved communication, and definitely strategic impact. So technology adoption.

In HR, in human resource management, it also leads to increased responsiveness, increased service quality as we have seen, positively influencing organizational performance. We also have an impact on organizational performance. The use of technology in HR not only enhances HR processes, but also drives overall business performance by enabling virtual relationships, reducing typical handouts, reducing headcount, and enhancing decision-making through data-driven insights. So, these are some of the critical aspects we have to ponder over when looking into disruptive technology in human resource management.

Now, let's look into impact of We have extensively discussed about HRAI specifically, the impact of AI specifically in HR with respect to different domains. Let's understand it on a more detailed fashion. We have touched upon it in the previous modules. We'll try to enhance our understanding today.

By looking into impact of AI in HR specifically, impact of AI in HR specifically, whereby we'll try to understand what has AI done or what is AI contributing in the field of human resource management. Specifically, we talk about recruitment, we talk about performance management, bias reduction, AI driven coaching. Let's understand that deeply. Now, when you look into recruitment, we have seen that there has been a

significant impact of AI in recruitment. AI tools typically streamline automating tasks like screening, like sourcing, and even to a certain extent, interview scheduling.

We have seen how AI is instrumental in interview scheduling. So these tools... Help reduce bias and improve the decision making by analyzing large chunks of data, large volumes of data, including public profiles, candidate videos to identify the best fit for the job. Ultimately, we want the right candidate in the right place. And this is where A.I.

Aids or facilitates the recruitment process. When you talk about performance management, AI can enhance performance management. AI can enhance performance management by providing real-time feedback, continuous performance reviews, and automated recognition or intervention. This typically improves employee motivation and ensures timely rewards or corrective actions based on performance. When we look into coaching, what is the relevance of AI-driven coaching? We have seen in the previous modules. It is all about increasingly being used to provide real-time, on-the-spot coaching for managers, particularly in leadership and soft skills development, among many other topics, specifically wherever the need is. So tools like Butterfly.ai offer personalized coaching.

And helps managers improve their leadership capability. If you have time, I will suggest you explore the different possibilities and tools involved in AI-driven coaching. Now, let's look into bias reduction. Specifically, we have categorically established that there is a possibility of bias when the human element comes into the picture. When you look into AI, AI helps eliminate human bias in various HR processes, such as recruitment and performance assessments, by relying on data and algorithms rather than mere subjective judgment. So this is where you are becoming more objective with the help of AI. Now, when you look into the impact of AI, Specifically, you have to also understand the possibility of having administrative tasks automated.

AI can automate routine HR tasks. Let's say something like scheduling meetings, transcribing calls, and even managing employee databases. So all these are otherwise mundane administrative tasks. Which can be automated, improving operational efficiency

and freeing HR professionals to focus on more strategic tasks. We also see that AI has had an impact on data-driven HR strategy.

AI transforms raw data into actionable insights, enabling HR leaders to make informed decisions and align all HR practices with broader organizational goals. This typically enhances the strategic role of HR in business decision-making. We have a typical role of AI in legal and compliance work. We have also touched upon it in the previous module. Additionally, we see that AI tools assist HR departments with legal tasks.

Let's say something like document discovery or contract management, for that matter. Or some compliance checks, for that matter. These tools significantly reduce the time and effort required for legal processes, enhancing accuracy and efficiency. When you talk about the impact of HRAI, we cannot ignore talent retention and development. Looking into AI, it helps in talent management by identifying potential issues early,

ensuring employee satisfaction and providing more opportunities for personal growth through personalized learning and development programs. This is yet another important aspect. We should also not forget that the impact of HRAI is very critical in cost and time efficiency. By automating and optimizing HR processes, AI reduces administrative costs. We have seen this, and it saves time.

That's the biggest advantage that AI has brought in, allowing HR teams to focus on value-adding activities or strategic tasks, as I already mentioned, like employee engagement, strategic planning, etc. Now, let's look into a more critical aspect, which is the impact of robots in HR. When we look into robots, let's say, we'll go case by case in the context of recruitment. Robots like Matilda are being used to conduct interviews, assess emotions, and determine the cultural fit for candidates, particularly if they are in sales positions or related jobs. This enhances efficiency in recruitment and helps reduce biases in the selection process.

You also have some chatbots—AI-powered virtual assistants—for HR support. We have that. These chatbots are increasingly used to answer HR-related queries, provide personalized responses, and help with talent acquisition. Let's take an example. For instance, Intel's HR assistant, Ivy, answers questions about pay and benefits.

It gives feedback. It improves through machine learning. You also have the possibility of automation because of these robots. You see that robots help digitize various HR tasks, be it onboarding, employee recognition, or coaching. Let's take an example of tools like Talla, which handles onboarding, or Growbot, which manages social recognition, simplifying workflows and improving productivity.

We also have the impact of cobots. Cobots are collaborative robots. I repeat, they are collaborative robots. Cobots are robots designed to work alongside humans in shared workspaces. So, when you look into these robots, they assist with repetitive, mundane tasks.

They reduce the workload and increase efficiency, especially in production environments where specific to the spaces or places where there are a large number of activities categorized as repetitive or mundane. So, cobots are affordable, adaptable, and certainly enhance the collaboration between human workers and machines to a great extent. So, what we see here with respect to the impacts of robots in HRM is, specifically with respect to recruitment, automation, cobots, and chatbots.

We continue this discussion. We see that in workplace harassment monitoring, robots play a significant role. Robots are used in coordination with HR professionals specifically to monitor workplace communications and detect potential harassment or inappropriate behavior, from email detection to all possible communication exchanges or transactions. All these aspects are monitored, especially concerning potential harassment or any possibility of inappropriate behavior. These systems typically help maintain a healthy organizational culture by flagging unacceptable interactions.

We also have, you know, the enhancement of employee communications. When you look into robots, these robots facilitate smoother communication within organizations. They provide a digital platform for employees to report misconduct or to typically ask questions, improving the access to HR services and increasing the transparency. you also have some of the critical relevance with respect to the future of robots in management. When you talk about the future of robots in management, please do understand that

experts in research suggest that in the near future, robots will take on more analytical decision-making tasks.

So right now, what we see them as we have discussed are more in the repetitive mundane tasks. But going ahead, robots will take on more analytical decision-making tasks requiring the HR professionals and managers to prepare for a future where humans and AI work closely together. However, please note that humans will continue to excel in, let's say, maybe areas like creativity, areas like emotional intelligence, areas like critical problem solving.

So all these, I don't feel that the human beings are going to get replaced anytime sooner. When you look into the impact of robots in HRM, we have also to understand the productivity and cost efficiency parameter. By automating the routine tasks and reducing the human error, there is no denying the fact that robots in HRM enhance overall efficiency, freeing HR professionals to focus on more strategic responsibilities. Now let's look into the impact of networks on HRM. We look into the networking aspect mainly because we see human resource management as an outcome of a collaborative function.

You know, there cannot be an individual leading the human resource platform. There is always a team that should be involved. There's always a SIG team. There's always a cohesion of employees. So when you talk about human resource management itself, it is all about collaboration.

It's all about cooperation. The moment there are individualistic goals coming into the picture, the moment you prioritize your personal goals over the organizational objectives, you move ahead, you go tangential to the objectives of the organization or the goals of the organization, or you stand away from the strategic intent. I don't think human resource management will exist. So this is where the relevance of networks comes into the picture. Now let's look into networks from the perspective of AI and technology.

Let's look into the learning and development digital platforms. Let's understand the possible networks involved in career development. Let's understand the collaboration and the power of knowledge sharing in detail. When you look into leadership and development via technology, digital platforms, you have to understand that when you

look into the social network, when you look into learning and development via digital platforms, you have to

Essentially, understanding the possibility of social networks—social learning, e-learning, and collaboration tools—enables continuous and personalized learning, enhancing employee skill development. You look into the possibility of career development. You see that social networks for recruitment are critical. HR professionals use social networking platforms. Let's say we all see that people are using LinkedIn and Facebook to screen job applicants.

Even after shortlisting or screening, mainly your social media handles are taken and verified or monitored for your performance, ideology, or how... And when or why you react to a particular situation. So, a lot of behavioral analysis happens with respect to your social media posts, interactions, transactions, etc. So please note, LinkedIn provides a professional resume-like view of candidates, while Facebook offers insights into personal traits, helping recruiters assess cultural fit. Nowadays, even if you are shortlisted, the selection will involve more scrutiny than in earlier days due to the availability of social media handles.

You also look into the impact of networks. We have to understand the continuous learning happening through digital platforms, as we have seen. Companies integrate learning into business processes, often linking it with performance management. So, social learning, e-learning, as we have seen, or collaboration tools enable companies to provide continuous and personalized learning, enhancing employee skill development.

So typically, the network supports continuous learning through digital content and microlearning through, let's say, short focused sessions, videos, etc. Etc. And macro learning, broader in-depth training. So what you are undertaking is part of that. Employees benefit from self-directed and spaced learning opportunities, asynchronous learning opportunities, which are tailored to their preferences and career goals.

We look into the impact of networks on HRM. We have to understand the importance of that in career development. We look into employers who can analyze employee skills and performance using networks to understand their career preferences. So this typically

enables the organization to offer personalized career paths and growth opportunities, helping employees pursue self-directed careers within and outside the company. You also have a critical element of collaboration and knowledge sharing that comes through the networks.

When you look into social networks, it enhances communication—no doubt about it. It enhances collaboration within the organization. Tools like, let's say, blogs, RSS feeds, or internal social platforms all promote knowledge sharing. They all promote interaction and empowerment among employees. We see that as part of the impact of networks on HRM, there is a possibility of this being very critical in terms of employee engagement.

Networks foster better communication by creating informal teams and encouraging interaction, which helps in employee engagement and builds a collaborative work environment. Let's take an example and understand it. Let's say, using social media to facilitate informal teamwork and improve customer relationship management, for that matter. We also have to understand employee-centric learning. How?

Networks enhance employee-centric learning. When you look into digital networks that bring learning closer to employees, what do you use now? What are you doing now? Making it more personalized and accessible so employees can participate in learning on demand, which aligns with personal development needs and organizational goals. Now, let's quickly understand the implications of these disruptive technologies.

When you look into technology, as it evolves, you will see that businesses across sectors must adapt quickly to digitization and automation happening globally. This shift demands organizations to incorporate advanced digital systems and streamline operations to stay competitive. Disruptive technology enhances business continuity, helping organizations remain resilient in uncertain, volatile environments. Companies must prioritize agility, as the ability to quickly adapt to sudden changes is crucial for survival. With the rise of Industry 4.0,

With the rise of Industry 4.0, HR functions will definitely evolve, becoming more specialized and data-driven. So, routine tasks can be automated through chatbots or AI-driven systems, allowing HR professionals to focus on strategic and high-impact

activities, as we have already seen. If you look into the skills, the demand for new skill sets is increasing. Employees typically must continuously learn and adapt, with a focus on a mix of soft skills, technical expertise, and digital proficiency. So, you talk about agility, adaptability, and the ability to work with evolving technologies.

They are all becoming critical competencies. As we have seen, robots and automation take over routine tasks—mundane tasks. There is—we cannot deny that—a concern about job displacement, with some jobs potentially being replaced by machines. So, this creates the need for reskilling and upskilling the workforce to prepare them for greater roles or new roles in the digital economy. We look into the integration of disruptive technology.

It introduces challenges related to privacy issues, particularly data privacy. Problems with surveillance and security: organizations must address these concerns by implementing strong data protection measures and maintaining trust with their workforce. And workers may experience frustration. Let us be very honest. We are all workers at some point, and we see this.

We experience frustration and resistance. Due to the unfamiliarity with the new systems, you are basically attending this course to get some familiarity about these systems. So frustration is a common outcome. Open communication, training and support from HR leaders are essential to help employees adapt positively to technology changes. So when you look into future of HRM, we see that there are possibilities of integration of disruptive technology.

strategic role of HR managers you know we will understand it from the empirical research on technologies impact we'll see it from the the the horizon of new skill sets that are required we look it from the point of view of reorganization of HR departments and even in the next slide we'll look into the employee relations and technology so when you look into the future of HRM You look into technologies like AI, robotics and networks that will transform the HRM processes from, let's say, recruitment and training to employee engagement and performance management. So HR departments will need to

adopt these tools to streamline operations and enhance the decision making. We look into the future of HRM. We see the strategic role of HR managers.

HR managers are not going to go anywhere. Please note, HR managers will evolve into strategic partners playing a vital role in aligning HR practices with business goals. So their influence on organizational outcomes will increase as they become more involved in strategic planning and talent management. When you look into, let's say, the technology's impact and let's say empirical research on that, most of the studies show that

there is a critical impact of AI or specifically technology on HR. And future research will focus on the measurable impact of disruptive technology. disruptive technologies on HR practices, employee relations, and organizational performance. So this will provide insights into how technology can optimize the HR functions. When you look into the future of HR, we have to also see the possibility of new skill sets for HR professionals.

Talk about HR professionals who will need to acquire new competencies, including, let's say, technological proficiency, data science, Analytics and even change management skills to effectively implement and manage disruptive technologies in the workplace. There's a possibility of reorganization of HR departments also that may happen, you know, as technology transforms HR processes. The structure of HR departments may need to change. Future research could explore whether traditional HR models, which we were always focusing on, will be replaced by more tech driven agile teams that can better support digital transformation.

And finally. With the rise of automation, you know, employee relations and technology will also have an effect. With the rise of automation and AI in HR process, we see that understanding the impact of these technologies on employee relations and engagement will be vital. HR managers must manage the balance between human interaction and technology driven solutions. So what we typically understand from the disruptive technology of this session particularly is that AI is making some of the vital impact or AI is bringing some of the critical changes in the HRM domain but that said as I've already discussed how HRM tries to integrate the technology that becomes relevant please note that there could be situations where The human element is taken out just to showcase

more efficiency or performance. But that said, human element is always required because of the sensitivity it can produce. Machines and machine learning algorithms might not be able to develop that level of sensitivity, which otherwise is required for every single person associated with a human resource management domain. So that's all from today's session.

We'll deal with more significant aspects of AI in HRM in the coming modules. Till then, take care. Bye-bye.