

ARTIFICIAL INTELLIGENCE AND TECHNOLOGY IN HR



INTRODUCTION TO ARTIFICIAL INTELLIGENCE

- **Artificial Intelligence (AI) refers to machines or software systems that can perform tasks that usually require human intelligence.**
- **AI systems can learn from data, recognize patterns, solve problems, and make decisions.**
- **AI is used in many industries including healthcare, banking, education, manufacturing, and human resources.**
- **In HR, AI helps organizations automate repetitive tasks and improve decision-making.**
- **AI reduces manual work and allows HR professionals to focus on strategic activities.**
- **Common examples include chatbots, resume screening systems, predictive analytics, and virtual assistants.**

MEANING OF HR TECHNOLOGY

- **HR Technology refers to the use of software, digital platforms, and technological tools in HR activities.**
- **It helps organizations manage employee information, recruitment, payroll, attendance, training, and performance.**
- **HR technology improves speed, accuracy, and efficiency in HR operations.**
- **Organizations use HR software to simplify complex HR functions.**
- **HR technology supports better communication between employees and management.**
- **It also helps organizations maintain employee records securely.**

EVOLUTION OF HR TECHNOLOGY

- **Earlier HR departments mainly used paper files and manual record keeping.**
- **Introduction of computers made HR documentation easier and faster.**
- **HR Information Systems (HRIS) transformed employee data management.**
- **Cloud computing enabled online HR platforms accessible from anywhere.**
- **Artificial Intelligence and automation further improved HR efficiency.**
- **Modern HR has become more strategic and data-driven.**

IMPORTANCE OF AI IN HR

- **AI helps reduce repetitive and time-consuming HR tasks.**
- **It improves the speed and accuracy of recruitment processes.**
- **AI helps HR professionals make data-based decisions.**
- **Employee experiences become more personalized through AI tools.**
- **Organizations can improve productivity and reduce operational costs.**
- **AI helps identify employee behavior patterns and performance trends.**

OBJECTIVES OF USING AI IN HR

- **Artificial intelligence improves HR efficiency and productivity.**
- **Technology supports better communication and workforce management.**
- **Digital systems help organizations make data-driven decisions.**
- **AI reduces manual work and simplifies HR operations.**
- **Organizations use HR technology for recruitment, training, and performance management.**
- **Modern HR professionals require digital and analytical skills.**

COMMON AI TECHNOLOGIES IN HR

- **Machine Learning:** Helps systems learn from employee data and improve predictions.
- **Natural Language Processing (NLP):** Enables systems to understand human language and communication.
- **Chatbots:** Virtual assistants that answer employee questions and assist candidates.
- **Predictive Analytics:** Uses data to predict employee performance and turnover.
- **Robotic Process Automation (RPA):** Automates repetitive HR tasks.
- **Facial Recognition and Biometric Systems:** Used for attendance and security purposes.
- **Voice Recognition Systems:** Assist in communication and virtual support.

HR INFORMATION SYSTEMS (HRIS)

- **HRIS stands for Human Resource Information System.**
- **It is a software solution used to manage HR functions digitally.**
- **HRIS stores employee information in a centralized database.**
- **It simplifies payroll, attendance, leave management, and recruitment.**
- **HRIS improves accuracy and reduces paperwork.**
- **It allows HR managers to generate reports quickly.**
- **HRIS supports better coordination among departments.**

AI IN RECRUITMENT PROCESS

- **AI helps organizations identify suitable candidates quickly.**
- **Resume screening software filters applications automatically.**
- **AI reduces recruitment time and hiring costs.**
- **AI tools analyze candidate qualifications and job compatibility.**
- **Chatbots communicate with applicants and answer common questions.**
- **Video interview software evaluates communication and behavior.**
- **AI helps improve candidate experience during recruitment.**

AUTOMATED RESUME SCREENING

- **AI software scans resumes and identifies relevant skills.**
- **It compares candidate qualifications with job requirements.**
- **HR professionals receive shortlisted candidates quickly.**
- **Automated screening reduces manual effort and saves time.**
- **AI systems help manage large numbers of applications efficiently.**
- **Recruitment bias can be reduced when systems are designed properly.**
- **Organizations can improve hiring quality using data analysis.**

CHATBOTS IN HR

- **Chatbots are AI-powered virtual assistants.**
- **They answer employee and candidate questions instantly.**
- **Chatbots provide information about leave policies, salary details, and company rules.**
- **Recruitment chatbots guide candidates through the application process.**
- **They improve communication and reduce response time.**
- **HR departments can provide 24/7 support using chatbots.**
- **Chatbots improve employee satisfaction and engagement.**

AI IN EMPLOYEE ONBOARDING

- **AI simplifies the onboarding process for new employees. Digital onboarding platforms provide online training materials.**
- **Chatbots help employees understand company policies.**
- **Automated systems complete document verification quickly.**
- **AI helps employees adapt to the organization faster.**
- **Virtual onboarding is useful for remote employees.**
- **Technology improves the overall onboarding experience.**

AI IN TRAINING AND DEVELOPMENT

- **AI helps identify employee skill gaps.**
- **Personalized learning programs can be designed using AI.**
- **Online learning platforms provide flexible training opportunities.**
- **AI recommends suitable courses based on employee performance.**
- **Virtual reality and simulations improve practical learning.**
- **Employees can learn at their own pace through digital systems.**
- **Organizations can track training effectiveness easily.**

E-LEARNING IN HR

- **Digital Learning Systems**
- E-learning refers to online education and training methods.
- Employees can access learning materials anytime and anywhere.
- E-learning reduces training costs and travel expenses.
- Interactive modules improve learning engagement.
- Organizations can train large numbers of employees efficiently.
- Digital certificates and assessments simplify evaluation.
- E-learning supports continuous employee development.

PERFORMANCE MANAGEMENT WITH AI

- **AI in Employee Performance Evaluation**
- **AI helps organizations monitor employee performance accurately.**
- **Performance data can be analyzed in real time.**
- **AI identifies strengths and weaknesses of employees.**
- **Managers receive data-based performance reports.**
- **Goal tracking becomes easier with digital systems.**
- **Continuous feedback systems improve employee productivity.**
- **AI supports fair and transparent evaluations.**

PREDICTIVE ANALYTICS IN HR

- **Predictive analytics uses historical data to forecast future outcomes.**
- **HR managers can predict employee turnover and absenteeism.**
- **Organizations can identify employees at risk of leaving.**
- **Workforce planning becomes more effective through data analysis.**
- **Predictive tools help improve recruitment strategies.**
- **Companies can make proactive HR decisions.**
- **Analytics improves long-term organizational planning.**

EMPLOYEE ENGAGEMENT TECHNOLOGY

- **Technology helps organizations improve employee communication.**
- **Employee feedback systems collect opinions and suggestions.**
- **Mobile apps improve interaction between employees and HR.**
- **Virtual recognition platforms motivate employees.**
- **Surveys help measure employee satisfaction levels.**
- **AI identifies factors affecting employee morale.**
- **Engaged employees contribute to higher productivity.**

TECHNOLOGY SUPPORTING REMOTE EMPLOYEES

- **Remote work became more common due to technological advancements.**
- **Video conferencing tools support virtual meetings.**
- **Cloud platforms allow employees to work from anywhere.**
- **HR software tracks attendance and productivity remotely.**
- **Communication platforms improve collaboration.**
- **Technology helps organizations manage global teams effectively.**
- **Digital HR systems support flexible work arrangements.**

CLOUD-BASED HR SYSTEMS

- **Cloud computing allows HR data to be stored online.**
- **Employees and managers can access HR systems from different locations.**
- **Cloud systems reduce hardware and maintenance costs.**
- **Data backup and security are improved.**
- **Cloud HR systems support remote and hybrid work models.**
- **Organizations can update software automatically.**
- **Scalability becomes easier with cloud-based platforms.**

IMPORTANCE OF BIG DATA ANALYTICS

- **Big data refers to large volumes of organizational information.**
- **HR departments use employee data for decision-making.**
- **Data analysis helps identify workforce trends.**
- **Organizations can improve employee performance using insights.**
- **Recruitment strategies become more effective with data analysis.**
- **Big data supports workforce diversity and inclusion.**
- **HR managers can make evidence-based decisions.**

AI IN PAYROLL MANAGEMENT

- **AI simplifies payroll calculations and salary processing.**
- **Automated systems reduce payroll errors.**
- **Tax calculations and deductions become more accurate.**
- **Employees receive salary information quickly.**
- **Payroll software improves compliance with labor laws.**
- **HR departments save time through automation.**
- **Digital payroll systems improve transparency.**

ATTENDANCE AND BIOMETRIC SYSTEMS

- **Biometric systems use fingerprints or facial recognition.**
- **Attendance tracking becomes accurate and secure.**
- **Organizations reduce fraudulent attendance practices.**
- **Automated attendance systems save administrative time.**
- **Employee work hours can be monitored efficiently.**
- **Integration with payroll systems improves accuracy.**
- **Technology supports better workforce discipline.**

DIGITAL HR SERVICES FOR EMPLOYEES

- **Self-service portals allow employees to manage their information.**
- **Employees can apply for leave online.**
- **Salary slips and attendance details are easily accessible.**
- **Employees can update personal information independently.**
- **HR workload is reduced significantly.**
- **Transparency and convenience improve employee satisfaction.**
- **Digital access improves communication efficiency.**

STRATEGIC WORKFORCE MANAGEMENT

- **AI helps organizations forecast future workforce needs.**
- **HR managers can identify skill shortages.**
- **Succession planning becomes more effective.**
- **Organizations can optimize staffing levels.**
- **AI improves long-term human resource planning.**
- **Workforce analytics supports strategic growth.**
- **Companies can prepare for future market demands.**

DIVERSITY AND INCLUSION THROUGH AI

- **AI can help reduce bias in recruitment when designed ethically.**
- **Data analysis helps organizations measure diversity levels.**
- **AI supports equal employment opportunities.**
- **Inclusive recruitment practices improve organizational culture.**
- **Technology helps identify discrimination patterns.**
- **Companies can create fairer workplace policies.**
- **Ethical AI systems improve workforce diversity.**

ETHICAL ISSUES IN AI AND HR

- **AI systems may sometimes create biased decisions.**
- **Employee privacy concerns may arise due to data collection.**
- **Overdependence on technology can reduce human interaction.**
- **Ethical use of employee data is very important.**
- **Organizations must ensure transparency in AI decisions.**
- **Human supervision is necessary in AI-based HR processes.**
- **Ethical guidelines help maintain trust among employees.**

PROTECTING EMPLOYEE INFORMATION

- **HR departments handle sensitive employee data.**
- **Organizations must protect personal and financial information.**
- **Cybersecurity measures reduce the risk of data breaches.**
- **Strong passwords and encryption improve data safety.**
- **Employees should be trained in digital security practices.**
- **Compliance with data protection laws is necessary.**
- **Secure HR systems build employee confidence.**

CHALLENGES OF IMPLEMENTING AI IN HR

- **High implementation costs can be a challenge.**
- **Employees may resist technological changes.**
- **Lack of technical knowledge affects adoption.**
- **AI systems require continuous updates and maintenance.**
- **Data quality problems may reduce system accuracy.**
- **Organizations must balance technology with human judgment.**
- **Training employees on new systems is essential.**

BENEFITS OF ARTIFICIAL INTELLIGENCE

- **Faster and more efficient HR operations.**
- **Reduced manual workload for HR professionals.**
- **Better recruitment and talent management.**
- **Improved employee engagement and satisfaction.**
- **Increased accuracy in HR processes.**
- **Better decision-making through analytics.**
- **Cost savings and improved productivity**

DISADVANTAGES OF AI IN HR

- **AI implementation can be expensive.**
- **Lack of emotional understanding in machines.**
- **Risk of data privacy violations.**
- **Dependence on technology may reduce personal interaction.**
- **Incorrect data may produce inaccurate decisions.**
- **Employees may fear job displacement.**
- **Technical failures can disrupt HR operations.**

DATA-DRIVEN HR MANAGEMENT

- **HR analytics involves collecting and analyzing workforce data.**
- **It helps organizations measure employee performance.**
- **Data supports strategic HR planning.**
- **Employee turnover patterns can be identified.**
- **HR analytics improves recruitment effectiveness.**
- **Organizations can measure training outcomes.**
- **Data-driven decisions improve organizational success.**

IMPROVING EMPLOYEE SATISFACTION

- **AI personalizes employee experiences.**
- **Employees receive faster support through digital systems.**
- **AI recommends learning opportunities and career paths.**
- **Virtual assistants improve workplace communication.**
- **Technology creates a more flexible work environment.**
- **Employee satisfaction contributes to better retention.**
- **Positive employee experiences improve organizational culture.**

EMERGING DEVELOPMENTS

- **AI adoption in HR will continue to grow.**
- **Virtual reality may become common in employee training.**
- **Advanced analytics will improve workforce predictions.**
- **Automation will simplify more HR processes.**
- **Hybrid and remote work technologies will expand.**
- **AI-driven career development systems may increase.**
- **HR professionals will require digital and analytical skills.**

ROLE OF HR PROFESSIONALS IN THE DIGITAL ERA

- **HR professionals must adapt to technological changes.**
- **Strategic decision-making becomes more important.**
- **HR managers need analytical and technical skills.**
- **Human interaction remains essential despite automation.**
- **HR leaders must manage change effectively.**
- **Employee well-being should remain a priority**

IMPACT ON BUSINESS PERFORMANCE

- **AI improves efficiency in HR processes.**
- **Faster recruitment helps organizations fill vacancies quickly.**
- **Employee productivity increases through better support systems.**
- **Training effectiveness improves using personalized learning.**
- **Data-driven decisions improve organizational performance.**
- **Technology helps organizations remain competitive.**
- **Improved HR practices contribute to business growth.**

SKILLS REQUIRED FOR FUTURE HR PROFESSIONALS

- **Digital literacy and technology understanding.**
- **Data analysis and analytical thinking skills.**
- **Communication and interpersonal abilities.**
- **Problem-solving and decision-making skills.**
- **Adaptability to technological changes.**
- **Leadership and strategic planning skills.**
- **Knowledge of AI tools and HR software.**

BEST PRACTICES FOR USING AI IN HR

- **Provide training for employees and HR professionals.**
- **Maintain ethical standards in AI implementation.**
- **Protect employee privacy and data security.**
- **Combine technology with human judgment.**
- **Update HR systems regularly.**
- **Encourage employee participation during digital transformation.**
- **Use AI to support employees rather than replace them.**

CONCLUSION

- **AI and technology are transforming human resource management.**
- **Modern HR systems improve efficiency, accuracy, and employee experience.**
- **Recruitment, training, payroll, and performance management have become more advanced.**
- **Organizations benefit from data-driven decision-making.**
- **Ethical use of AI and employee privacy are very important.**
- **HR professionals must continuously upgrade their skills.**
- **Technology and human interaction should work together for organizational success.**



THANK YOU

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