

A woman with blonde hair and blue eyes is looking intently at a screen. The background is a vibrant, abstract geometric pattern of triangles in shades of blue, orange, and yellow. The text is overlaid on the lower half of the image.

INTEGRATING ARTIFICIAL INTELLIGENCE INTO HUMAN CAPITAL MANAGEMENT

AUGUST 2023

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In today's fast-paced and data-driven world, Human Capital Management (HCM) is undergoing a transformative shift with the integration of Artificial Intelligence (AI)

This cutting-edge technology has the potential to revolutionize every aspect of the employee lifecycle, from recruitment to offboarding. In this executive summary, we will explore the breadth and application of AI in HCM, along with key considerations for CHROs when adopting AI solutions.



A CHRO PRIMER ON **AI IN HUMAN CAPITAL MANAGEMENT**

Shaping Labor Trends: Transforming Skills and Workforce through AI

The dynamic landscape of labor is undergoing significant transformations driven by the advancements in AI. These emerging labor trends are reshaping the skills required and job types emerging in the workforce.

Job Impact



AI will create more jobs than it eliminates by 2030

The rise of AI has generated new job roles that leverage AI technologies, including AI Ethicist, AI Trainer, and AI Business Strategist. These types of positions are experiencing progressive demand.



30% of tasks in over 60% of occupations could undergo significant transformation

The integration of augmented intelligence technologies is revolutionizing job roles across industries. Repetitive and manual tasks, such as data entry and basic customer support, are being eliminated. This transformation enables a shift in focus to more strategic and value-added activities, driving innovation and efficiency.



80% of employers are investing in workforce upskilling

The transformative impact of AI and automation on the job market has prompted a proactive response from employers to invest to prepare employees for the changing job landscape.

Emerging Skills and Job Types



+40%

job postings for **data scientists** from 2019 to 2022



+70%

job postings for **AI engineers** in the last year



+45%

demand in the last year for **cybersecurity professionals** skilled in AI defense and securing AI systems



Education Programs and Investments by Institutions

AI Degree Programs: Universities are incorporating AI into core programs, including MBA and undergraduate majors, to equip students with essential AI knowledge and skills. For example, the University of California, Berkeley offers an AI-focused undergraduate major that explores topics like machine learning and natural language processing.

Research Centers: Academic institutions are establishing dedicated research centers focused on AI to drive cutting-edge research and innovation. The Massachusetts Institute of Technology (MIT) established the MIT Quest for Intelligence, an interdisciplinary research initiative dedicated to advancing AI. Stanford University collaborated with industry partners to create AI research labs, such as the Stanford Artificial Intelligence Lab, fostering collaboration between academia and industry.

Industry Partnerships: Educational institutions are forming partnerships with industry leaders to develop AI curricula, provide real-world experience, and ensure alignment with industry needs. Microsoft provides the Microsoft AI Business School, which offers online courses on AI strategy and implementation. IBM has established AI innovation labs, such as the IBM AI Innovation Lab in collaboration with the Massachusetts Institute of Technology, to provide a platform for students, researchers, and industry professionals to develop AI-driven solutions.

(Source: McKinsey)

Revolutionary AI Categories in HCM: Transforming Workforce Management and Dynamics

Recognizing the transformative potential of AI and the disruptive impact of Generative AI is imperative for proficient leadership in modern HCM. HR leaders need to possess comprehensive understanding of these emerging technologies, their application to HCM, as well as their wider societal, economic, and legal ramifications. By harnessing this knowledge, organizations can drive business value and mitigate potential risks effectively.

Certain types of AI are considered disruptive to workforce management due to their potential impact on job roles, tasks, and the overall workforce dynamics.



Robotic Process Automation (RPA)

RPA involves the use of software robots to automate repetitive and rule-based tasks. It can replace manual labor in areas such as data entry, invoice processing, and customer support.

Impact: Reduces the need for human intervention in routine tasks, potentially leading to job displacement or the need for upskilling and reskilling to adapt to new roles.



Intelligent Process Automation (IPA)

IPA combines RPA with cognitive technologies like NLP and ML to automate more complex and cognitive tasks, including data analysis, decision-making, and problem-solving.

Impact: Automates more complex tasks such as fraud detection, expense processing, and supply chain management traditionally performed by teams of human workers, necessitating a shift in job roles and skills required.



Machine Learning (ML) & Predictive Analytics (PA)

ML algorithms and PA can analyze large amounts of data to make informed predictions and automate decision-making processes.

Impact: Optimizes resource allocation, forecasting demand, and identifies potential performance issues or turnover risks. By streamlining these processes, they may change workforce planning and the allocation of human resources.



Augmented Intelligence

AI systems enhance human intelligence and decision-making rather than replacing humans. This can include AI tools that provide real-time insights, data analysis support, and recommendations to human workers.

Impact: Potential to significantly change how tasks are performed and the skills needed by employees to take advantage of this technology in their roles.



Natural Language Processing (NLP) & Chatbots

NLP enables computers to understand and interact with human language. Chatbots, powered by NLP, can handle customer inquiries, provide support, and perform basic tasks.

Impact: Reduces need for human customer service agents and reshapes the roles and responsibilities within customer support teams.



Generative AI

Generative AI is an advanced AI technology that enables machines to generate new and original content, such as text, images, and music, with remarkable accuracy and realism.

Impact: Automation and innovation of higher-order and more sophisticated tasks and activities. This includes areas such as content creation, software coding, and legal contracts, which require greater levels of creativity and knowledge.



Key Considerations for CHROs: Navigating AI Adoption in HCM

Embracing AI across the employee lifecycle is more than just about implementing cutting-edge technologies—it's about transforming HR practices and enhancing employee experiences. As a CHRO, adopting AI tools can bring significant benefits, but it's vital to navigate this journey with a comprehensive understanding of the implications. The considerations listed here, spanning from data privacy to employee trust, offer a roadmap to address potential challenges and ensure successful AI integration. Your role as a strategic leader is to balance technological advancement with ethical responsibilities, regulatory compliance, and the wellbeing of your team, while optimizing organizational performance and growth.

POLICY

TECHNOLOGY

SOCIAL RESPONSIBILITY



Data Privacy and Security:

AI technologies, particularly those used in HR, collect and share large amounts of sensitive and PII data across systems and parties. Proper consent management, data sharing and storage safeguarding technologies are essential.



Vendor Selection and Management:

Selecting and managing AI vendors presents unique challenges due to the cutting-edge and complex nature of the technology, which often operates as a black box and raises ethical considerations. Moreover, the rapidly evolving AI landscape introduces new vendors, tools, and policy issues daily. To choose the right partners, companies must conduct meticulous evaluations of the vendors' technical expertise, domain knowledge, and track record in delivering tangible business results. Careful evaluation of vendor pricing structures and licensing models is critical to avoid vendor "lock-in".



Displacement and Reskilling:

AI technologies will significantly change how work is done and invariably displace jobs as they are currently defined. Organizations can adopt remediation strategies such as enhancing human capabilities through AI, redesigning roles, enabling internal mobility, fostering collaboration between humans and AI, and providing social support measures for affected individuals. These strategies help organizations tackle job displacement challenges and create a supportive environment for integrating AI technologies.



Regulatory Compliance:

Deploying AI technologies often involves compliance with various data protection regulations, such as the General Data Protection Regulation (GDPR) and the emerging Artificial Intelligence Act in the European Union or the California Consumer Privacy Act (CCPA) in the United States. Complying with these regulations, which include requirements for data minimization, purpose limitation, and user consent, can be complex and challenging.



Return on Investment:

Start by clearly defining goals and objectives, ensuring they are measurable and tied to specific outcomes. Next, identify and prioritize high-value use cases that can deliver significant impact and quick ROI. Seek opportunities to optimize existing business processes through AI implementation. Foster collaboration between different teams and departments, encouraging the sharing of insights, best practices, and facilitating rapid AI capability development throughout the organization.



Bias and Fairness:

AI algorithms can inadvertently perpetuate biases present in the training data, leading to discriminatory outcomes, impacting privacy and fairness. Addressing bias and ensuring fairness in AI models require careful data selection, preprocessing, and ongoing monitoring.



Transparency:

Many AI models, such as deep learning algorithms, operate as black boxes, meaning their decision-making processes are not easily explainable or understandable by humans. This lack of transparency raises concerns regarding how personal data is being used, leading to potential privacy violations and/or general lack of trust in the technology for running the business.



Human Connection:

People are inherently social beings. Recognizing the significance of human-to-human connection, especially during complex personal matters, is essential for fostering trust and psychological safety in the workforce. Preserving the human touch in HR interactions is vital.





A GUIDE TO LEVERAGING AI ACROSS THE EMPLOYEE LIFECYCLE



Empowering Modern Human Capital Management: Integrating AI and Generative AI Across the Employee Lifecycle

In the evolving landscape of Human Capital Management, CHROs are constantly seeking innovative ways to enhance performance, enrich employee experiences, and drive organizational success. AI technologies offer unprecedented opportunities in this quest. This comprehensive guide illuminates how specific types of AI can be applied across the different stages of the employee lifecycle. It outlines the key metrics, AI types, associated technologies, and essential considerations for each stage, providing the modern CHRO with a holistic view of AI's transformative potential, including Generative AI, in HCM.

RECRUITMENT



AI is revolutionizing the recruitment process by adding precision and personalization to employment marketing, targeting and screening. Automation of administrative tasks is also greatly improving the efficiency of program management and the overall candidate experience.

ONBOARDING



AI can significantly improve the efficiency of new hire program management and augment the employee onboarding experience through personalization and automation of administrative tasks.

LEARNING & DEVELOPMENT



Innovations in AI, such as Machine Learning and Generative AI, are can be used together to generate and personalize training content that is directly calibrated to individual performance and career goals, and the overall workforce planning goals of the enterprise.

OFFBOARDING



AI technologies can provide valuable insights into attrition patterns, automate administrative tasks, and assist in capturing and organizing the expertise and knowledge from departing employees.

PERFORMANCE AND WORKFORCE PLANNING



AI technologies can bring precision and objectivity to performance assessment and development, as well as power skill-based workforce management enabling precision of talent need forecasting, development and deployment of talent to the right work, at right time, with an optimized success rate and cost.

REWARD AND RETENTION



AI technologies offer significant efficiencies and capabilities to Total Rewards programming. These include rapid multi-source and labor market data analysis for guiding salary benchmarking, fair and transparent merit-based compensation decisions, proactive identification and remediation of pay disparities, optimized incentive designs to align with desired outcomes and behaviors, personalized and cost-optimized benefits programs, identification of turnover risks with remediation planning, and automation of compliance audits and reporting.

RECRUITMENT: Attracting and Hiring Top Talent

The recruitment stage sets the foundation for building a high-performing and diverse workforce. With the integration of AI technologies, organizations can optimize their recruitment processes, attract top talent, and foster a culture of inclusivity. Leveraging AI-powered tools such as natural language processing, machine learning, and predictive analytics, HR teams can streamline candidate selection, automate job descriptions, and enhance the hiring experience.

AI & Generative AI Value Drivers

Predictive Analytics: Aids in identifying successful recruitment channels and high-potential candidates by analyzing historical data and patterns and personalizing talent outreach.

Chatbots: Streamlines the application process, answers candidate queries, and improves overall candidate experience through automated and personalized interactions.

NLP and NLU: Analyzes job descriptions and resumes to extract relevant information, matches candidates with job requirements, and improves the accuracy and efficiency of candidate screening.

Automation: Enables the automation of repetitive and manual tasks in the recruitment process, such as resume screening, interview scheduling, and candidate follow-ups. This frees up valuable time for HR professionals to focus on strategic activities and enhances overall efficiency and productivity in recruitment efforts.

Generative AI: Can be leveraged to automate job description development and personalize advertisements using data from successful past campaigns and job postings. Content development can be automated to promote diversity, equity, and inclusion (DEI) in hiring. It can also help write unbiased job descriptions, reducing potential biases in language and promoting fairness in recruitment.



Metrics

- Time to Fill
- Cost per Hire
- Diversity Representation
- Pay Equity



AI Types

- [Predictive Analytics](#)
- [Chatbots](#)
- [NLP](#)
- [NLU](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on pp. 20.



Considerations

- Unbiased AI Algorithms, Data Privacy
- Compliance, Avoiding Discrimination
- Cost-Benefit Analysis, ROI

ONBOARDING: Engaging and Empowering New Hires



Onboarding is a critical phase in the employee lifecycle that sets the stage for long-term success and engagement. By leveraging AI technologies, organizations can deliver personalized and seamless onboarding experiences that accelerate new hire productivity and engagement. Through the integration of AI-driven solutions like natural language processing and chatbots, HR teams can automate onboarding processes, provide instant support, and tailor learning materials to individual needs.

AI & Generative AI Value Drivers

Chatbots: Provides personalized onboarding experiences to new employees. Answers common questions, provides relevant information, and guides employees through the onboarding process, enhancing efficiency and experience.

NLP: Gains valuable insights into new hire experiences and identify areas for improvement. Better understands the sentiments and challenges of new employees, enabling them to address concerns, provide necessary support, and optimize the onboarding journey.

Predictive Analytics: Identifies patterns and factors that contribute to successful onboarding experiences, allowing organizations to optimize their onboarding processes and personalize the experience for each new employee.

Automation: Streamlines onboarding processes, reducing manual errors and enhancing efficiency. Tasks, such as paperwork completion, access provisioning, and task reminders, are automated, ensuring a seamless onboarding experience. This enables HR resources to focus on personalized support and fostering a positive onboarding culture.

Generative AI: Enables the creation of tailored onboarding content, such as interactive training modules, onboarding guides, and video tutorials, that address specific employee needs and preferences.



Metrics

- Time to Productivity
- Employee Satisfaction
- Retention Rate
- Compliance and Onboarding Completion Rate



AI Types

- [Chatbots](#)
- [NLP](#)
- [Predictive Analytics](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on page 20.



Considerations

- Personalized AI-Generated Content, Data Privacy
- Compliance, Employee Consent
- Cost of AI Implementation, Efficiency Gains

PERFORMANCE AND WORKFORCE PLANNING: Objective Insights for Continuous Growth



Performance evaluation and enterprise talent planning play vital roles in maximizing Return on Talent Investment (ROTI) and overall organizational performance. AI-enabled solutions can dramatically enhance the accuracy, objectivity, and efficiency of performance evaluation and workforce development processes. Machine learning and predictive analytics enable proactive mitigation of biases across talent management programs and the development of performance development plans optimized against individual and enterprise goals. AI technologies can truly power skill-based workforce management, enabling more precise talent forecasting, development, and deployment of the right talent, to the right work, at the right time, with an optimized success rate and cost.

AI & Generative AI Value Drivers

Predictive Analytics: Utilizes historical human capital data, performance trends, labor market information, and work demand data to generate valuable insights and predictions regarding employee supply and development needs.

ML: Analyzes various data sources, including historical performance, training, and rater feedback to identify patterns and insights providing a more comprehensive understanding of employee performance and potential.

NLP: Analyzes text-based feedback from performance evaluations, self-assessments, interviews, and feedback surveys to extract valuable insights and sentiments, enabling a more holistic and nuanced evaluation.

Automation: Automates performance and workforce planning processes, including data collection, analysis, and reporting. It eliminates manual tasks, reduces errors, and provides real-time insights for data-driven decision-making and effective workforce planning.

Generative AI: Automates the generation of personalized and actionable feedback for each employee based on their performance data, development goals, and organizational context, promoting transparency, understanding, and continuous improvement.



Metrics

- Absenteeism Rate
- Goal Achievement Rate
- Performance Improvement Rate
- Performance-to-Pay Ratio
- Skill Gap Forecasts
- ROTI



AI Types

- [Predictive Analytics](#)
- [ML](#)
- [NLP](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on page 20.



Considerations

- Unbiased AI Algorithms, Fairness
- Compliance, Avoiding Discrimination
- Cost-Benefit Analysis, Optimization

LEARNING & DEVELOPMENT: Nurturing Growth and Potential



Employee development is key to unlocking the full potential of your workforce. With AI technologies, organizations can create personalized and impactful employee development programs that address skill gaps, foster continuous learning, and drive career advancement. Leveraging machine learning and predictive analytics, HR teams can identify individual training needs, recommend tailored learning paths, and measure the effectiveness of development initiatives.

AI & Generative AI Value Drivers

ML: Identifies patterns, trends, and insights that can inform personalized learning experiences. Develops recommendation systems, adaptive learning platforms, and intelligent feedback mechanisms, enhancing the effectiveness of learning programs.

NLP: Develops intelligent chatbots, virtual assistants, and language learning tools that provide personalized feedback, answers learner questions, and facilitates interactive language practice.

Adaptive Learning (using ML and DL): Adjusts learning content, pace, and assessment based on the individual learner's progress and needs. Continuously analyzes learner data and provides personalized recommendations and interventions to optimize learning outcomes.

Automation: Streamlines and automates learning processes, such as content delivery, assessments, and progress tracking, to enhance efficiency and learner experience.

Generative AI: Enables organizations to deliver tailored learning experiences that maximize engagement, knowledge retention, and skill development. It also allows for the continuous adaptation and improvement of learning programs based on real-time feedback and data analysis.



Metrics

- Training Performance Transfer
- Skills Gap Assessment
- Return on Training Investment
- Promotion Rates



AI Types

- [ML](#)
- [NLP](#)
- [DL](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on page 20.



Considerations

- Personalized AI-Generated Learning Paths, Equity
- Compliance, Intellectual Property Rights
- Cost of AI-Based Learning Solutions, ROI

REWARD AND RETENTION: Maximizing Engagement and Loyalty

A cost-effective Total Rewards program that drives a highly engaged and loyal workforce is essential for the success of any organization. AI technologies offer powerful tools to understand, measure, and enhance employee engagement and retention strategies. By leveraging the capabilities of machine learning, predictive analytics, and natural language processing, HR teams can gain real-time insights, personalize engagement initiatives, optimize reward and recognition programs, competitive pay structures, and incentive programs, and proactively drive engagement and mitigate attrition risks.

AI & Generative AI Value Drivers

Sentiment Analysis/NLP: Utilize AI-powered sentiment analysis to gauge employee morale, satisfaction, and engagement levels by analyzing surveys, feedback, and social media posts. Gain valuable insights into employee sentiment, identify improvement areas, and design targeted reward and recognition programs to foster engagement and loyalty.

Predictive Analytics: Leverage AI-driven predictive analytics to proactively identify indicators of employee turnover, such as behavior changes, performance patterns, and sentiment trends. Gain foresight into attrition risks, enabling the implementation of targeted retention strategies and interventions to optimize employee engagement.

ML: Enhance the employee experience with AI-driven chatbots that provide quick self-service options for HR inquiries. Empower employees with instant access to information and resources, maximizing their reward, recognition, and engagement.

Predictive Analytics/ML: Utilize historical and internal human capital data, performance trends, and labor market information to continuously update salary benchmarking and automate fair merit-based compensation decisions, proactively identify and remediate pay disparities, optimize incentive designs to align with desired business outcomes, and personalize benefits programs and optimize spend.

Automation: Streamlines and automates learning processes, such as content delivery, assessments, and progress tracking, to enhance efficiency and learner experience.

Generative AI: Utilize generative AI to create personalized employee engagement initiatives based on individual preferences and feedback. Design tailored experiences that promote inclusivity, enhance satisfaction, and maximize employee engagement and loyalty through optimized reward and recognition practices.



Metrics

- Employee Retention Rate
- Employee Engagement Score
- Inclusion Index
- Employee Wellbeing
- Compa-ratio and Group Differences



AI Types

- [Sentiment Analysis](#)
- [Predictive Analytics](#)
- [ML](#)
- [NLP](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on page 20.



Considerations

- Fair AI Algorithms, Avoiding Bias
- Compliance, Equity
- Cost of AI-Enabled Rewards, Impact on Retention

OFFBOARDING: Transitioning with Care and Insight



Offboarding, although often overlooked, plays a crucial role in ensuring a smooth and positive exit experience for departing employees. AI-enhanced offboarding solutions can help organizations manage the offboarding process efficiently, gain insights into attrition trends, and ensure a positive transition for both the departing employee and the organization. Leveraging AI technologies, such as machine learning and predictive analytics, HR teams can personalize offboarding plans, identify improvement opportunities, and mitigate potential risks.

AI & Generative AI Value Drivers

NLP: Aids in processing feedback from exit interviews for actionable insights, helping identify trends and areas for improvement in the offboarding process.

ML: Analyzes historical data on employee attrition, identifies patterns, and provides insights into the factors that contribute to employee departures, allowing organizations to take proactive measures to retain valuable talent.

Sentiment Analysis: Gauges the sentiment of departing employees, identifying any underlying issues or concerns that need to be addressed to improve the offboarding process and preserve organizational reputation.

Automation: Streamlines administrative tasks related to offboarding, such as revoking access privileges, updating records, and handling exit documentation, reducing manual effort and ensuring compliance with offboarding protocols.

Generative AI: Utilizes generative AI to create personalized employee engagement programs and initiatives based on individual preferences and feedback, fostering a culture of inclusivity and enhancing employee satisfaction and retention.



Metrics

- Retention Rate of High-Performing Employees
- Labor Standards Compliance



AI Types

- [NLP](#)
- [ML](#)
- [Sentiment Analysis](#)
- [Automation](#)
- [Generative AI](#)



AI Technologies

- See [HCM AI Tools and Technologies Landscape](#) on page 20.



Considerations

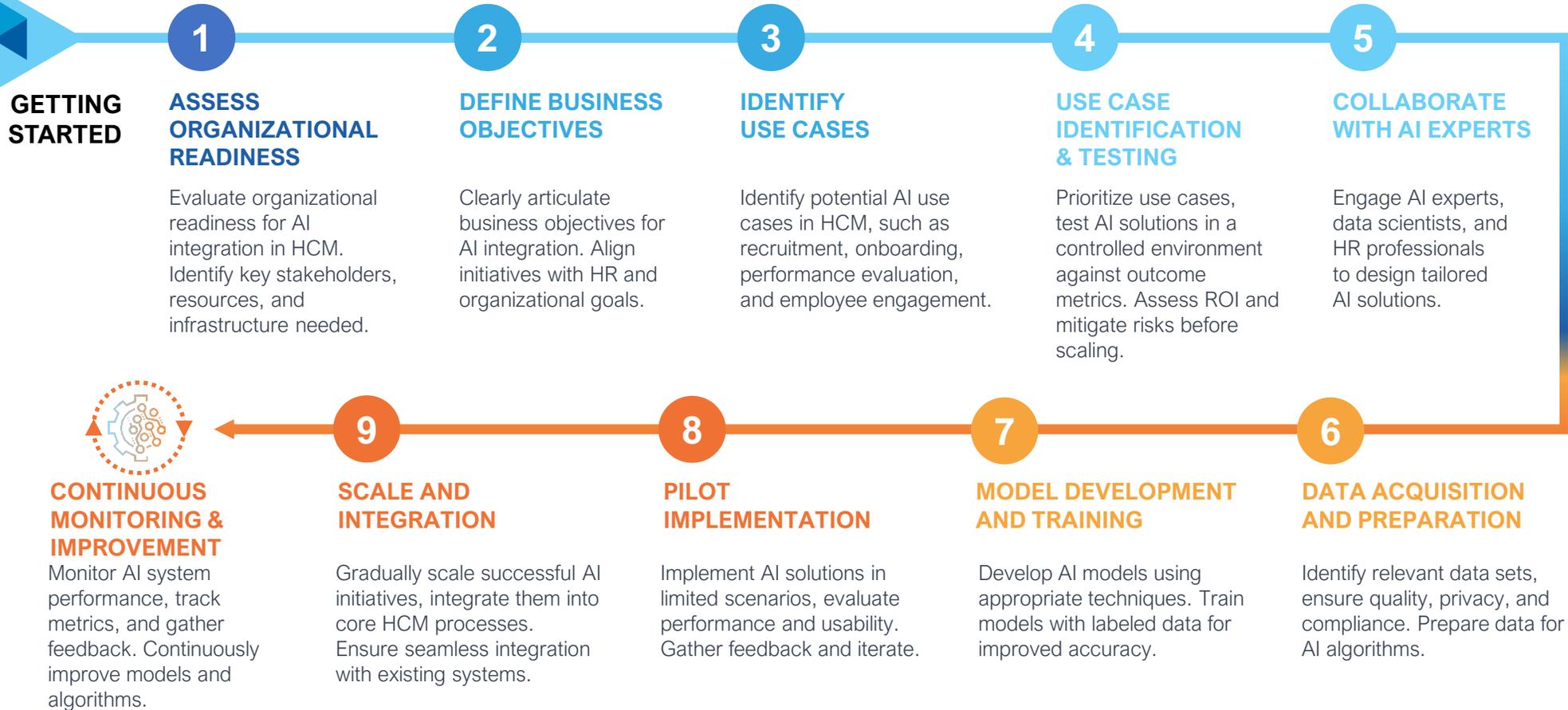
- Data Privacy
- Fairness
- Cost



AN OPERATING MODEL TO ACCELERATE THE AI MATURITY CURVE

INTEGRATING AI IN HCM: From Exploration to Value Realization

To harness the potential of AI in HCM, **organizations need a comprehensive process that leverages a “test and learn” methodology** that accelerates knowledge generation and value capture to fund the transformation journey.



Outcomes

- More efficient HR process
- Improved data-driven decision-making
- Enhanced candidate experience
- Optimized talent acquisition
- Personalized employee experiences
- Improved learning and development programs
- Increased employee engagement/retention
- Mitigation of biases in HR practices
- Streamlined onboarding/offboarding
- Alignment of HR strategies with organizational goals
- Enhanced HR agility and adaptability

GOVERNANCE FRAMEWORK

A robust **governance approach is essential to mitigate risk while accelerating value capture** and ensuring a ROI for scaling AI across HCM. This model provides oversight, guidance, and accountability throughout the AI journey.

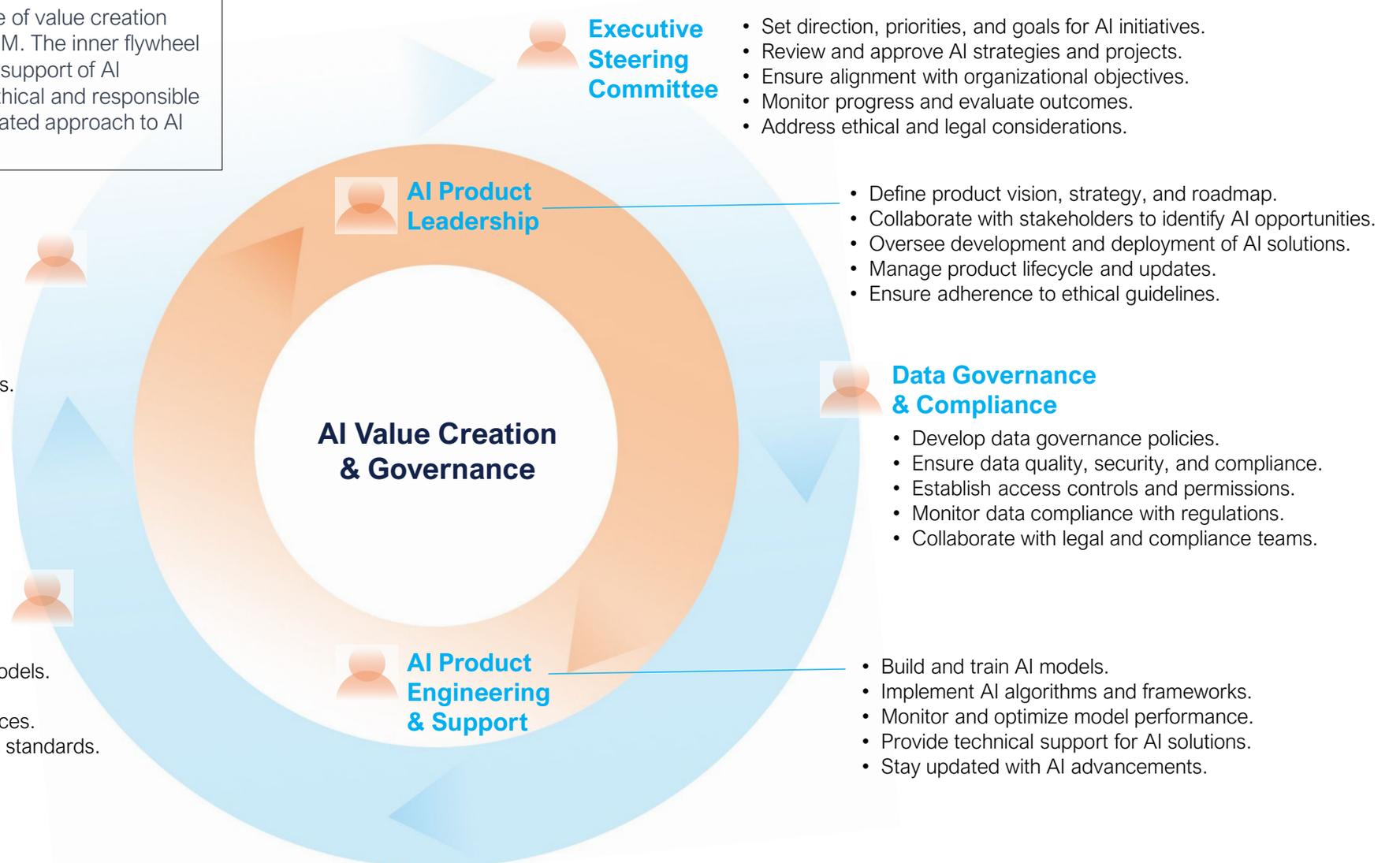
The flywheel represents the continuous cycle of value creation and governance in AI implementation for HCM. The inner flywheel drives strategic direction, development, and support of AI solutions, while the outer flywheel ensures ethical and responsible AI practices. Together, they create an integrated approach to AI governance and value creation in HCM.

Change Management & Adoption

- Develop change management strategies.
- Create awareness and provide AI training.
- Foster a culture of innovation and learning.
- Support employees in adapting to AI changes.
- Monitor adoption and impact of AI.

Ethics & Bias Oversight

- Establish ethical guidelines for AI.
- Conduct bias assessments of AI models.
- Mitigate biases in AI systems.
- Provide training on ethical AI practices.
- Update ethical guidelines based on standards.





HCM AI TOOLS AND TECHNOLOGIES LANDSCAPE



HCM AI Tools and Technologies Landscape

The following provides an overview of popular AI/Generative AI technology solutions available for leverage across the employee lifecycle. While these solutions have gained recognition and popularity, it's important to recognize that every organization should carefully evaluate their specific business needs and requirements before selecting the most suitable technology. These leading solutions offer a diverse range of capabilities that can enhance HR processes and drive positive outcomes across different stages of the employee lifecycle. It is essential to approach the selection process with a focus on your organization's goals, culture, and unique challenges.



RECRUITMENT

- **HireVue** (video interviewing)
- **Pymetrics** (talent matching)
- **Eightfold.ai** (talent intelligence)
- **Textio** (job description optimization)
- **Ideal** (automated screening and shortlisting)
- **AllyO** (AI-powered recruitment automation)
- **Entelo** (AI-driven candidate sourcing)
- **Mya Systems** (AI chatbot for candidate engagement)
- **XOR.ai** (AI-powered recruitment automation)
- **Beamery** (AI-driven candidate relationship management)

ONBOARDING

- **Enboarder** (automated onboarding experiences)
- **Talmundo** (digital onboarding platform)
- **Click Boarding** (employee onboarding software)
- **Talentsoft** (onboarding and employee engagement platform)
- **Appical** (employee onboarding and preboarding platform)
- **SilkRoad Technology** (onboarding and talent activation)
- **WalkMe** (digital adoption platform for onboarding)
- **Enboard** (employee onboarding software)
- **Sapling** (employee onboarding and HRIS platform)
- **HR Cloud** (employee onboarding and engagement)

PERFORMANCE AND WORKFORCE PLANNING

- **Visier** (people analytics and workforce planning)
- **Culture Amp** (employee feedback and performance management)
- **Reflektive** (continuous performance management)
- **Betterworks** (OKR goal-setting and performance management)
- **Kazoo** (employee engagement and performance management)
- **15Five** (continuous performance management and employee feedback)
- **HighGround** (employee recognition and performance management)
- **Peakon** (employee engagement and performance management)
- **Glint** (employee engagement and people success platform)
- **Lattice** (performance management and employee engagement)

LEARNING & DEVELOPMENT

- **Cornerstone OnDemand** (learning management system)
- **Udemy for Business** (online learning and training platform)
- **LinkedIn Learning** (professional development and learning platform)
- **Pluralsight** (technology skills training and development)
- **EdCast** (AI-powered learning experience platform)
- **Coursera for Business** (online courses and skills development)
- **Skillsoft** (corporate learning and talent development)
- **Docebo** (AI-powered learning platform)
- **Degreed** (learning experience platform)
- **NovoEd** (collaborative learning platform)

REWARD AND RETENTION

- **Bonusly** (employee recognition and rewards platform)
- **Kazoo** (employee engagement and recognition)
- **Workhuman** (social recognition and employee rewards)
- **Achievers** (employee recognition and rewards)
- **Fond** (employee recognition and rewards platform)
- **Assembly** (employee rewards and engagement)
- **Kudos** (employee recognition and appreciation platform)
- **Blueboard** (employee rewards and experiences)
- **Compport** (compensation planning)
- **Beqom** (total compensation management)

OFFBOARDING

- **Enboarder** (automated offboarding experiences)
- **Sapling** (offboarding and HRIS platform)
- **Click Boarding** (employee offboarding software)
- **ClearCompany** (employee offboarding and exit management)
- **PeopleDoc** (offboarding and HR service delivery)
- **Kazoo** (offboarding and employee lifecycle management)
- **HR Cloud** (employee offboarding and HRIS)
- **Carbon** (employee offboarding and exit management)
- **Hibob** (employee offboarding and HRIS)
- **PeopleGuru** (employee offboarding and HRMS)



ESSENTIAL AI TYPES

Essential AI Types



As organizations embark on the journey to integrate AI and Generative AI, it's crucial to recognize that AI isn't a monolithic entity but a constellation of technologies with diverse applications and implications. Gaining a foundational understanding of AI types, their unique characteristics, and considerations for each is a vital step towards implementing AI effectively and responsibly.

Machine Learning (ML):

What Is It:

An application of AI that provides systems with the ability to automatically learn and improve from experience without being explicitly programmed.

Value Drivers:

- Improves decision-making through automated learning
- Enhances efficiency
- Enables predictive analytics

Considerations:

- Important to prevent algorithmic bias and ensure transparent decision-making.
- Compliance with data privacy laws; clear guidelines on data usage and decision-making based on learned data.
- Can be high cost depending on complexity, but potential for high ROI through improved decision-making and predictive capabilities.

Deep Learning (DL):

What Is It:

A subset of ML, it's designed to mimic human brain functioning through artificial neural networks. It excels in pattern recognition and is the driving force behind advanced image and voice recognition systems.

Value Drivers:

- Advanced pattern recognition enables breakthroughs in fields like image and voice recognition
- Improved user experiences
- Process optimization

Considerations:

- Requires transparency in decision-making processes.
- Measures necessary to prevent bias in pattern recognition.
- Compliance with data privacy laws; specific attention needed for handling biometric data (voice, images).
- Requires a large volume of data for training, which can be a challenge for companies with limited data availability.
- High cost due to complex nature of deep learning systems, but potential for high ROI in applications where pattern recognition can drive significant value.

Natural Language Processing (NLP):

What Is It:

This AI type focuses on the interaction between computers and humans using natural language, powering chatbots, translation services, and sentiment analysis.

Value Drivers:

- Enhances human-computer interaction
- Supports customer service through chatbots
- Enables translation services
- Provides sentiment analysis

Considerations:

- Ensuring fairness and avoiding bias in language processing and understanding.
- Compliance with data privacy laws; specific considerations for handling personal communication data.
- Costs and ROI depend on application, with potential for high ROI in customer service and data analysis contexts.

Essential AI Types

(continued)



Natural Language Understanding (NLU):

What Is It:

An advanced aspect of NLP, NLU allows AI systems to not just process language but understand context and nuance.

Value Drivers:

- Refines interaction between humans and machine
- Enables better understanding of user intent (e.g., sarcasm, double meaning)

Considerations:

- Need for clear policies on data collection and usage due to privacy concerns.
- Consent is crucial.
- Compliance with data protection and privacy laws is mandatory.
- Initial investment can lead to long-term efficiency, improved retention, and cost savings.

Chatbots and Virtual Assistants:

What Is It:

AI programs that interact with users in natural language, providing assistance in tasks, answering queries, and facilitating various applications.

Value Drivers:

- Automate routine tasks
- Enhance customer self-service options
- Improve overall user experience

Considerations:

- Ensuring fair use.
- Preventing bias in image recognition and interpretation.
- Compliance with data privacy laws is crucial, especially when handling images that may identify individuals.
- Costs vary based on complexity of application, with potential for high ROI in areas like automated quality inspection or advanced security systems.

Predictive Analytics:

What Is It:

Utilizing Machine Learning to predict future outcomes based on historical data, it enhances decision-making capabilities across various strategic applications.

Value Drivers:

- Anticipate trends
- Inform strategic decision-making
- Optimize operational efficiency across various domains

Considerations:

- Accuracy of predictions depends on quality and completeness of data used for analysis.
- Compliance with privacy regulations and ethical standards are essential.
- Yields complex insights, and understanding and interpreting results correctly is crucial for effective decision-making.
- Models need to be continually monitored and updated to ensure accuracy and relevance.

Essential AI Types

(continued)



Sentiment Analysis:

What Is It:

This AI type focuses on the interaction between computers and humans using natural language. It powers chatbots, translation services, and sentiment analysis, enabling machines to understand and process human language.

Value Drivers:

- Enhances human-computer interaction
- Supports customer service through chatbots
- Enables translation services
- Provides sentiment analysis

Considerations:

- Ensuring fairness and avoiding bias in language processing and understanding.
- Compliance with data privacy laws.
- Costs and ROI depend on application – costs and potential return on investment of NLP applications vary depending on the specific use case. NLP can offer high ROI in contexts such as customer service and data analysis, where efficient language processing and understanding are critical.

Computer Vision:

What Is It:

This AI discipline enables machines to 'see', interpret, and understand visual data, fueling applications in healthcare, security, and manufacturing, among others.

Value Drivers:

- Enables machines to 'see' and understand images
- Automate processes
- Improve decision-making
- Enhance user experiences

Considerations:

- Privacy and data security measures are paramount to protect user interactions.
- Compliance with data protection and privacy laws is essential.

Robotics and Automation:

What Is It:

Leveraging AI to perform automated and precise tasks, these systems increase efficiency and productivity, and can even create safer work environments across various fields.

Value Drivers:

- Automates manual tasks
- Improved productivity
- Potentially safer working conditions
- Supports precision (e.g., healthcare, manufacturing)

Considerations:

- Issues related to job displacement.
- Ensuring the safe and fair use of robotics in the workplace.
- Compliance with safety and IP regulations is essential in environments where automated technologies are implemented.
- Initial setup costs can be high, but over time, productivity gains and cost savings due to increased efficiency can offer substantial ROI.

Essential AI Types

(continued)



Augmented Intelligence:

What Is It:

Augmented Intelligence integrates AI technologies with human intelligence to enhance decision-making, problem-solving, and cognitive tasks, fostering collaboration and synergy between humans and machines.

Value Drivers:

- Empowers data-driven insights and recommendations to make informed and strategic decisions
- Streamlines processes by reducing manual effort and improving efficiency
- Enables personalized interactions, communication, and experiences
- Helps identify and predict patterns and trends in complex data sets

Considerations:

- Ethical considerations regarding ownership, authenticity, and potential misuse of generated content.
- Financial implications of implementing and maintaining Generative AI systems.
- Cost of acquiring or developing the necessary infrastructure and expertise.
- Balancing automation with human creativity and expertise.
- Ensuring data privacy and security throughout the generative process.

Generative AI

Generative AI:

What Is It:

Generative AI is an advanced technology that enables machines to generate new and original content, such as text, images, and music, with remarkable accuracy and realism.

Value Drivers:

- Personalized and unique content creation at scale
- Enhanced creativity and innovation in various industries
- Improved customer experiences through tailored and immersive content
- Accelerated product design and development processes
- Streamlined automation and efficiency in content generation

Considerations:

- Ethical considerations regarding ownership, authenticity, and potential misuse of generated content.
- Financial implications of implementing and maintaining Generative AI systems.
- Cost of acquiring or developing the necessary infrastructure and expertise.
- Balancing automation with human creativity and expertise.
- Ensuring data privacy and security throughout the generative process.

The Future is Ours to Create

As CHROs, we have the privilege and responsibility to lead our organizations in embracing the power of AI. By harnessing the capabilities of AI, we can drive innovation, optimize HR processes, and unlock the full potential of our workforce. Let us continue to stay at the forefront of AI advancements, exploring new possibilities, and leveraging emerging technologies to create value for our employees, customers, and the enterprise and community we serve.

As we navigate the complexities of AI adoption in HCM, let us remember that success lies not only in the technologies we implement but also in the human-centric approach we take. It is through thoughtful integration, continuous learning, and a deep understanding of our employees' needs and aspirations that we can truly shape a future of work that empowers, engages, and inspires.

Together, let us embrace the power of AI in HCM and embark on this exciting journey to redefine workforce management. The possibilities are limitless, and the future is ours to create.

About the Authors



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Amplified by AI.

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