PERSPECTIVES ON AI & HR: A RESOURCE FOR HR PRACTITIONERS

Introduction

Artificial intelligence (AI) has been a part of the working world for decades, with most associating AI with automation and machine learning. However, the November 2022 release of ChatGPT, a generative AI technology, captured the attention of thought leaders globally – over one million people signed up to use the tool in just five days.[1,2] Generative AI is different from traditional machine learning given its ability to generate original content, ranging from text to art. Fast forward and the adoption of generative AI technologies is accelerating business conversations – one being its impact on the workplace now and in the future. Relatedly, in August 2023, OpenAI released ChatGPT Enterprise, offering advanced capabilities for businesses.[3]

With this in mind, this guidebook offers an integrated view of published perspectives highlighting the intersections of HR and generative AI opportunities. While there are several ways to consider this, below are three initial discussion questions:

- **Impact on HR Roles:** AI applications should improve efficiency, and effectiveness of certain HR roles (e.g. talent acquisition and learning & development). As HR practitioners, how are you prioritizing the roles most likely to be directly affected, and how are you beginning to experiment with AI in this capacity?

- **Impact on Teams:** AI applications should improve efficiency and effectiveness of other knowledge-based roles in your organizations (e.g. engineering, sales, and marketing positions). It is also possible it will augment existing roles and create new categories. How is your HR organization playing offense, rather than defense, on this important subject?

- **Impact on the Future of Work:** AI applications, in aggregate, will have a varying effect on the future of work. How might work be supplemented or reorganized in your organization with the introduction of generative AI technologies?

[1] McKinsey and Company, "What is generative AI?" January 19, 2023
[2] Human Resource Executive, "HR Tech 2023 Preview - AI and HR: Implications...and Opportunities" August 3, 2023
[3] Open AI, "Introducing ChatGPT Enterprise" August 28, 2023

Table of Contents

Chapter 1
Defining Artificial Intelligence

The term "artificial intelligence" originated at the 1956 Dartmouth Summer Research Project on Artificial Intelligence by John McCarthy, an assistant mathematics professor at Dartmouth College.[4] At its core, AI is defined as "a machine's ability to perform the cognitive functions we associate with human minds, such as perceiving, reasoning, learning, interacting with an environment, problem solving, and even exercising creativity."[5] Machine learning and generative AI are both forms of the technology, but impact processes in different ways. While this guidebook focuses on generative AI, below are their definitions and key differences:

- **Generative AI:** Generative AI is a technology build on algorithms that can be used to create new content in response to a prompt. Examples include original audio, code, images, text, simulations, and videos.[6]

- **Machine Learning:** Machine learning is a form of artificial intelligence based on algorithms that can learn how to make predictions and recommendations by processing data and experiences. Examples of applied machine learning technologies include facial recognition, email automation, or targeted advertisements and product recommendations.[7, 8]

As these definitions imply, humans have been using machine learning technologies for years. Siri, for example, is a technology built around machine learning. However, the heightened capabilities of generative AI have invoked the attention of business leaders and regulators globally. A Boston Consulting Group survey of 13,000 people, from executive suite leaders to middle managers and

[4] Rockwell Anyoha, "The History of Artificial Intelligence" August 28, 2017
[5] McKinsey and Company, "What is AI?" April 24, 2023
[6] McKinsey and Company, "What is generative AI?"
[7] Tableau, "Real-World Examples of Machine Learning (ML)"
[8] Coursera, Artificial Intelligence (AI) Terms: A to Z Glossary." June 15, 2023

frontline employees, found that while 71% of respondents believe the rewards of generative AI outweigh the risks, 79% support regulation.[9] A recent Harvard Business Review article highlights some of the risks and ethical concerns related to generative AI:[10]

- **Accuracy and Bias:** Generative AI models produce original content based on inputs. A recent whitepaper published by the Josh Bersin Company notes that AI systems must be "trained" with vast amounts of data to increase their accuracy. Similarly, OpenAI has proven that large language models become more accurate as more data is added.[11] What this can mean is that if inputs are incorrect or biased, so too will be the outputs. As an example, if a user is leveraging generative AI models to develop interview questions or generate compensation programs, if the inputs to the model are biased, the questions and programs created will incorporate those biases. Beginning July 5, 2023, a New York City law will require companies publicize use of AI hiring tools and share results of bias audits.[12]

- **Safety:** Users may inadvertently input personal or proprietary company data into generative AI tools. For example, if a user inputs proprietary code or their home address, in the event of a data breach, that information could be shared broadly.

- **Honesty:** Some users may claim generative AI outputs as their own, original content. Others may input material that requires consent or licensing (e.g., professional photographs or publications). An example could include an artist claiming generative AI outputs as their own work, or a student submitting an essay generated by AI.

- **Sustainability:** Training some large language models uses substantial amounts of energy and water. For example, GPT3 took 1.287 gigawatt hours – about as much electricity to power 120 U.S. homes for a year, and 700,000 liters of clean freshwater.

- **Regulatory:** As generative AI continues to gain capability, more regulatory bodies are passing legislation for its regulation. In the US, Congress, the Biden Administration, the Department of Commerce, and the Federal Trade Commission have all either spoken out or taken steps towards regulation. In July 2023, the Biden administration announced that seven major AI companies, including Amazon, Anthropic, Google, Inflection, Meta Platforms, Microsoft, and OpenAI are making voluntary commitments to enhance governance around AI technologies. These include testing their AI systems' security and capabilities before their public release, investing in research on the technology's risks to society, and facilitating external audits of vulnerabilities in their systems.[13] Additionally, European Union lawmakers have drafted a version of the "AI Act," and in China, draft rules would require makers of chatbots to adhere to the country's censorship rules.[14]

[9] Vinciane Beauchene, Nicolas de Bellefonds, Sylvain Duranton, and Steven Mills, "AI at Work: What People Are Saying." Boston Consulting Group, June 7, 2023
[10] Kathy Baxter and Yoav Schlesinger, "Managing the Risks of Generative AI." Harvard Business Review, June 6, 2023
[11] The Josh Bersin Company, "Understanding AI in HR, A Deep Dive" 2023
[12] Cornell University, ILR School, "Explainer: Landmark NYC AI Law" April 11, 2023
[13] Sabrina Siddiqui and Deepa Seetharaman, "White House Says Amazon, Google, Meta, Microsoft Agree to AI Safeguards." The Wall Street Journal, July 21, 2023
[14] Adam Satariano, "Europeans Take a Major Step Toward Regulating A.I." The New York Times, June 14, 2023

Chapter 2
Intersections of Generative AI and HR: Insights for HR Practitioners

Given its ability to complete cognitive tasks, research and opinions suggest that generative AI is affecting the future of work. Research from McKinsey asserts that generative AI is likely to have the largest impact on knowledge work, specifically on tasks involving decision making and collaboration.[15] McKinsey asserts "many of the work activities that involve communication, supervision, documentation, and interacting with people in general have the potential to be automated, by generative AI, accelerating the transformation of work in occupations such as education and technology." Similarly, Charter, a future of work research and media company, references "AI as an Intellectual Concierge." It asserts that knowledge work is ripe for AI applications in various ways, from summarizing and reformatting documents to teaching and providing feedback.[16] Finally, a recent Harvard Business Review article also describes how it can enhance employee creativity, help them identify novel ideas, and improve the quality of raw ideas.[17]

Generative AI has the capability to augment traditional job tasks across functions – from sales to marketing to engineering. Given its impact on the workforce broadly, HR practitioners are uniquely positioned to understand generative AI in the context of their organizations. While generative AI's remit is wide, it also has specific implications for the HR function. This section contains four insights into how generative AI intersects with HR, creating opportunities for HR practitioners.

[15] McKinsey and Company, "The economic potential of generative AI: The next productivity frontier" June 14, 2023
[16] Charter, "The AI Mandate for HR" 2023
[17] Tojin T. Eapen, Daniel J. Finkenstadt, Josh Folk, and Lokesh Venkataswamy, "How Generative AI Can Augment Human Creativity." Harvard Business Review, July 2023

INSIGHT 1: OPTIMIZING STANDARD TALENT ACQUISITION PROCESSES

Machine learning has supported talent acquisition (TA) processes for years – resume screening is just one example. However, generative AI capabilities offer the ability to supplement TA in new capacities, enhancing the candidate experience.

One way is helping hiring managers personalize the job application experience for candidates. As an example, generative AI technologies can write the skills needed to be successful in a job, as well as allow for personalization of candidate interactions. Not only can it reach out to applicants, but it can redirect candidates to other jobs that may be available if they aren't a fit.[18] For example, the platform Pymetrics utilizes AI technology to redirect "silver medalist" candidates to other fitting job opportunities, automatically re-engaging promising applicants.[19]

Another way generative AI is supplementing TA is to mitigate bias in the hiring process. Given generative AI outputs are dependent on inputs, the technology can be trained on diverse datasets and algorithms that recognize and eliminate biased patterns. Additionally, some generative AI algorithms can anonymize candidate data, removing identifiable factors such as names, gender, or ethnicity that could introduce bias.[20]

One example is Pillar, an interview intelligence platform, which records and transcribes interviews. Pillar generates highlight reels so teams can easily and equitably compare candidates' answers and experiences. Pillar's research found that women get asked 20% more questions than men and are given 25% less time to answer.[21] The technology also provides coaching and interview guidance for hiring teams to ensure positive candidate experiences.[22]

INSIGHT 2: PERSONALIZED APPROACHES TO LEARNING AND DEVELOPMENT

Generative AI is creating opportunities for personalized employee learning and development plans in several ways, complementing traditional in-person management. Accenture's CXO pulse survey found that nearly 6 in 10 organizations plan to use ChatGPT for learning purposes and over half are planning pilot cases in 2023.[23]

One opportunity is through leveraging behavioral insights to create "smart AI coaching" systems. These combine several data sources to identify strengths and weaknesses specific to an individual employee, tailored to their performance.[24] Leveraging these insights, the technology can deliver context-specific nudges to employees on a range of topics, such as employee health and wellness, customer experience, or operational efficiency.

[18] Bryan Hancock, Bill Schaninger, and Lareina Yee, "Generative AI and the future of HR." McKinsey and Company, June 5, 2023

[19] Jessica Kim-Schmid and Roshni Raveendhran, "Where AI Can — and Can't — Help Talent Management." Harvard Business Review, October 13, 2022

[20] Vikas Lalwani, "The Rise of Generative AI: Transforming Talent Acquisition Strategies." LinkedIn Pulse, May 18, 2023

[21] Alexa Amatulli, "PeopleTech Partners Webinar Recap: AI in Recruiting & HR…What It Means for People Leaders." PeopleTech Partners, May 22, 2023

[22] Pillar, pillar.hr

[23] CXO Pulse Survey, conducted by Accenture Research, February 2023

[24] Jorge Amar, Shreya Majumder, Zachary Surak, and Nicolai von Bismarck, "How AI-driven nudges can transform an operation's performance." McKinsey and Company, February 11, 2022

In addition to "smart coaching," generative AI can help create personalized development plans for employees based on their career goals. In the McKinsey Talks Talent Podcast episode, Generative AI and the Future of AI, partner Bryan Hancock explains:

"...in a world of generative AI, you could have a conversation with a very intelligent chatbot and say, 'Hey, here are my skills and experiences. What jobs could be open to me?' And it could come back and say, 'Well, most people with your skill profile do these things, but some do A, B, C,' with 'C' being coding. And then, you could say, 'Tell me what these jobs in coding would be,' and it could pull a job description for a coder that is not just geared toward an IT person but translated into words you understand. Then you could say, 'OK, this is great. I'm interested. What learning experiences do I need?' And generative AI could tell you what those learning experiences are."[25]

Similarly, Sal Khan, Founder of Khan Academy, suggests in his 2023 Ted Talk that AI has the potential to transform education for the better, scaling the positive impacts of 1:1 tutoring more broadly. Sharing "Khanmigo," Khan Academy's new AI-powered guide, Khan illustrates the tool's ability to personalize learning to a student's needs and interests, enhancing the learning experience.[26]

INSIGHT 3: NEW PERSPECTIVES ON PERFORMANCE MANAGEMENT

Given their impact on and increased adoption by knowledge-based workers, generative AI technologies are introducing new perspectives on performance management. A recent study from MIT suggests that workers with the least experience have the most to gain from generative AI technologies.[27] Similarly, research from McKinsey finds that generative AI is likely to have the most incremental impact through automating activities of more educated workers.[28]

The MIT study measured the impact of generative AI technology on call center employee performance. It trained the tool based on inputs from previous chats with clients, leveraging how to best pacify customers and the documentation needed for certain situations. The researchers found that the company's lowest-skilled workers became 35% faster with the tool, and think this was because the AI technology transferred top performers' knowledge to less-experienced colleagues through the automatically-generated recommended responses.[29]

As it relates to generative AI's impact on performance management, this study poses the thought starter: as lower skilled employees improved, previous high performers stopped standing out Should companies consider compensating their high performing employees for their inputs to AI tools, rather than their traditional work products or outputs – which are no longer as differentiated from their colleagues?

[25] McKinsey and Company, "Generative AI and the future of HR"
[26] Khan Academy, "Sal Khan's 2023 TED Talk: AI in the classroom can transform education" May 1, 2023
[27] Brian Eastwood, "Workers with less experience gain the most from generative AI." MIT Sloan, June 26, 2023
[28] McKinsey – The Economic Potential of Generative AI
[29] Jo Constantz, "Work Shift: How AI Might Upend Pay." Bloomberg, May 2, 2023

Separately, generative AI supplements traditional performance management practices, such as performance reviews. This has been met with mixed reactions by employees – the Pew Research Center found that 39% of Americans are opposed to the use of AI in evaluating performance, while 31% favor it, and 29% are not sure.[30] Outside of writing actual performance reviews, generative AI can synthesize inputs on an employee's performance, such as client or customer feedback, providing a reference for their manager or reviewer. This reduces a manager's time in summarizing their employee's performance inputs, providing a holistic view of feedback, making it easier to have a difficult performance conversation or create development plans.

INSIGHT 4: CONSIDERING GOVERNANCE PRACTICES

While there are many opportunities to advance work with generative AI as a partner of sorts, there are still critical considerations for governance – both broadly and in the workplace. In March 2023, several tech executives and AI researchers called for a moratorium on the development of generative AI tools to give the industry more time to set safety standards and mitigate evolving risks.[31] As workers increasingly adopt generative AI technologies, both employees and employers are voicing concerns about its rise.

A recent article from McKinsey describes the responsibility of boards of directors as it relates to generative AI. It argues that boards should be asking company leaders questions that both create value from the technology and mitigate risk. It also outlines ways in which boards can improve their general understanding around generative AI. These include: 1) ensuring board composition with the right mix of technological expertise; 2) hosting training or learning opportunities for board members; and 3) incorporating generative AI into its own work processes.[32]

Additionally, as employees gain capabilities around AI, HR leaders have a timely opportunity to apply governance practices aligned to their organization's unique context and risks. For example, a defense contractor may have higher concerns related to proprietary data than a professional services organization.

Charter's "The AI Mandate for HR" lists six generic pillars for generative AI governance:[33]

1. Don't enter confidential, sensitive, or private information into any AI tool that hasn't been specifically cleared for use.
2. Don't use AI tools for projects that require high security.
3. Don't use AI tools for external-facing projects with copyright and brand sensitivity.
4. Don't use AI in ways that perpetuate bias.
5. Be transparent about when you've used AI tools with colleagues and clients.
6. Use your judgement and check facts.

[30] Pew Research Center, "AI in Hiring and Evaluating Workers: What Americans Think" April 20, 2023

[31] Deepa Seetharaman, "Elon Musk, Other AI Experts Call for Pause in Technology's Development." Wall Street Journal, March 29, 2023

[32] Frithjof Lund, Dana Maor, Nina Spielmann, and Alexander Sukharevsky, "Four essential questions for boards to ask about generative AI." McKinsey and Company, July 7, 2023

[33] Charter, "The AI Mandate for HR" 2023

INSIGHT 5: EDUCATING THE ORGANIZATION

Given the increasing capabilities of generative AI technologies, the demand for skills in knowledge work is likely to change. Due to these shifts, many organizations are taking different approaches to upskilling their workforces. A recent Harvard Business Review Magazine article, "Reskilling in the Age of AI," explores these changes.[34] It suggests that employees are largely interested in reskilling, and offers several ways to design programs about which employees are excited. Examples include designing from employee perspectives and enrolling employees as partners in that design.

Because of the pace of development around new generative AI technologies, organizations and individuals are educating themselves at an unprecedented speed. In many ways, HR is well positioned to create educational opportunities for their organizations and employees related to generative AI use cases. As one example, Charter proposes HR leaders help human people identify ways to evolve their roles amid AI augmentation, as well as train them on AI capabilities to improve and supplement their work.

Charter also mentions that one of the most "urgent" tasks for HR leaders is increasing organizational AI aptitude.[35] It suggests HR leaders use generative AI tools, such as ChatGPT and Dall-E on a daily basis to upskill themselves. Charter also recommends organization-wide training sessions that are available to all groups. It closes by suggesting that AI should enhance what employees can achieve, with HR leaders helping to unlock its potential benefits.

Relatedly, there are several online training modules that are currently available for capability building. Some examples include:

- **"Career Essentials in Generative AI,"** by Microsoft and LinkedIn. Launched on the LinkedIn Learning platform in June 2023, it provides a professional certificate on Generative AI.[36, 37]

- **"AI for Everyone,"** by Coursera, is a a four-module course covering topics such as "What is AI?," "Building AI Projects," "Building AI In Your Company," and "AI and Society."[38]

- **"AI for Everyone: Master the Basics,"** by IBM, is a self-paced online course covers an introduction to AI, helping learners understand its applications, use cases, ethics, and key definitions.[39]

- **"Google AI for Anyone,"** by Google, covers applications of AI as well as an overview of programming AI.[40]

[34] Jorge Tamayo, Leila Doumi, Sagar Goel, Orsolya Kovács-Ondrejkovic, and Raffaella Sadun, "Resikilling in the Age of AI." Harvard Business Review Magazine, September-October 2023

[35] Charter, "The Urgent AI Tasks for HR" 2023

[36] LinkedIn Learning, "Career Essentials in Generative AI by Microsoft and LinkedIn"

[37] Kate Behncken, "Microsoft Launches New AI Skills Training and Resources as part of Skill for Jobs Initiative." LinkedIn Pulse, June 28, 2023

[38] Coursera, "AI for Everyone"

[39] IBM, "IBM: AI for Everyone: Master the Basics"

[40] Google, "Google: Google AI for Anyone"

What's Next: Sustaining the Change

The intersections of generative AI, the workforce and HR will continue to evolve – and perhaps at a greater speed than other previous technology shifts. While some organizations are adopting a wait and see approach, others are hard at work determining use cases for their companies and building the knowledge management tools that will help their teams sustain the change.

One thing is certain: generative AI opportunities are increasing for the workforce, the workplace and society. HR leaders are uniquely positioned to understand the technology and its applications to drive business results across their organizations. As the workforce gains capabilities around generative AI tools, HR leaders will have increasing opportunities to both mitigate risks and empower their stakeholders.

This report was prepared in August 2023 by:

Laura Cococcia, Head of HR Strategy, Talent & Culture, GE

Elizabeth Schaeffler, Senior Manager, HR Strategy and Program Management, GE

Lilian Loizeaux, Executive - HR Business Partner, GE Vernova

Mallory Kuppusamy, Culture Leader, GE Aerospace

Mathilde Fouque, Senior Program Manager, Leadership and Culture, GE

Ellen Beck, Head of HR Technology, GE HealthCare