AI in HR

TRANSFORMING THE FUTURE OF WORK

According to HireVue's 2025 Global Guide to AI in Hiring

AI adoption among HR professionals surged to 72% in 2025, up from 58% in 2024, reflecting increased comfort with AI-driven hiring recommendations."

- The shift is not just theoretical; it's happening now.

- HR professionals are increasingly trusting and utilizing AI tools.

- The rate of adoption is accelerating, indicating a fundamental change in HR practices.

What is Artificial Intelligence (AI)?

Artificial intelligence (AI) is a broad field of computer science focused on creating machines capable of performing tasks that typically require human intelligence.

AI aims to enable computers to mimic human cognitive functions, such as learning, problem-solving, and decision-making.

https://www.youtube.com/watch?v=r13I-TuDcWI&pp=ygUIaGFsIDkwMDA%3D

History of Artificial Intelligence (AI)

- **Early Foundations (1950s):**
  - The field was officially established at the Dartmouth Workshop in 1956.
- **"AI Winters" (1970s-1980s):**
  - Early AI systems struggled with real-world complexity.
  - Funding and interest declined due to unfulfilled promises.
- **The Rise of Machine Learning (1990s-2000s):**
  - Increased computing power and data availability fueled progress.
  - Machine learning algorithms gained prominence.
- **The Deep Learning Revolution (2010s-Present):**
  - Significant advancements in areas like image and speech recognition.
  - The rise of Generative AI, and large language models, like ChatGPT, has created a current boom in AI development.

Key Drivers:
  - Increased computing power (GPUs).
    - The availability of vast datasets.

Periods of "AI Winters"

Internet as a Repository of Data

- **Immense Scale:** The internet houses an unparalleled volume of data, encompassing everything from:
  - Text
  - Images
  - Videos
  - Audio files (podcasts)
  - Complex Datasets
- This scale is constantly growing, with new data being generated and uploaded **every second**.

Where does AI reside?

The "Cloud"

An example:

Meta's data center for Facebook and Instagram

Microsoft Azure
Amazon AWS
Google Cloud (GCP)

Where does AI reside?

Warehouses full of computers that store application programs and data

Sometimes, I find it easier to understand something when I learn what it isn't.

What AI Isn't:

Lacks True Understanding and Common Sense: AI excels at pattern recognition, but it doesn't "understand" the world like humans do. It struggles with common-sense reasoning, contextual awareness, and the ability to make inferences beyond its training data.

Humans possess a vast amount of implicit knowledge about the world, which we use to make everyday decisions.

For example: If you say "the ball rolled off the table" a human knows that the ball will fall down, due to gravity. An AI may not understand this without being trained on physics.

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What AI Isn't:

 Struggles with Contextual Awareness: Human communication is highly context-dependent. AI can struggle to interpret language or situations when the context is ambiguous or requires background knowledge.

For example, the phrase "time flies like an arrow" can be interpreted in several ways depending on the context. An AI might struggle to choose the correct interpretation.

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What AI Isn't:

 Absence of Genuine Creativity: AI can generate content and even "innovate" within defined parameters, but it lacks the spark of true originality. It can't produce truly novel ideas that go beyond the patterns it has learned.

The "spark" of creativity often involves **intuition, emotional response, and a deep understanding of context**—qualities that are difficult to replicate in current AI models.

Sometimes, I find it easier to understand something when I learn what it isn't.

What AI Isn't:

Lacks Ethical and Moral Reasoning: AI systems lack inherent ethical frameworks. They can perpetuate biases present in their training data and struggle with making morally sound decisions in complex situations.

Humans develop a sense of ethics and morality through a combination of social interaction, cultural norms, and personal experiences.

For example: Empathy is developed through personal experiences. If a person experiences pain or loss, they are better able to relate to others that are going through similar situations

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What AI Isn't:

Contextual Understanding: AI often struggles with the nuances of language, like sarcasm, irony, and subtle shifts in tone. Understanding the full context of a situation is very difficult for AI.

For Example:

Human: "Oh, fantastic. My car broke down during rush hour." (Said with a flat, annoyed tone)

Without understanding the tone and typical human reactions to car breakdowns, an AI might interpret this as a positive statement. It could potentially respond with something like, "That's great! I'm glad you're having a good day."

Sometimes, I find it easier to understand something when I learn what it isn't.

What AI Isn't:

Susceptible to Data Dependency and Bias: AI's performance is heavily reliant on the quality and quantity of its training data. Biased or incomplete datasets can lead to skewed and unfair results.

"Garbage In, Garbage Out"

AI models learn from the data they are fed. If the training data is flawed, the model's output will also be flawed. This principle, often referred to as "garbage in, garbage out," is especially relevant to AI.

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What AI Isn't:

Explainability (The "Black Box" Problem): Many AI models, especially deep learning models, operate as "black boxes," making it difficult to understand how they arrive at their decisions. This lack of transparency is a major concern, particularly in critical applications.

Generalization and Transfer Learning: AI systems often struggle to transfer knowledge learned in one domain to another. While they can excel at specific tasks, they lack the flexibility and adaptability of human intelligence.

In essence, while AI can process information and perform tasks with incredible efficiency, it lacks the human capacity for understanding, reasoning, and feeling.

What AI Is:

Artificial intelligence (AI) is an evolving broad field of computer science focused on creating machines capable of performing tasks that typically require human intelligence.

Key Capabilities:

Learning: AI systems can learn from data, improving their performance over time without explicit programming. This is often achieved through machine learning.

Reasoning: AI can learn to process information and draw logical conclusions.

Problem-solving: AI can analyze complex situations and find effective solutions.

Perception: AI can interpret sensory input, such as images and sounds, allowing it to "see" and "hear."

Language understanding: AI can process and understand human language, enabling communication through natural language processing (NLP).

What is Generative AI?

- **Generative AI:** This is the overarching category. It refers to artificial intelligence that can *generate new content*. This content can take various forms, including:
  - Text
  - Images
  - Audio
  - Video
  - Code
- So, any AI that creates something "new" falls under this umbrella.

Generative AI vs. Large Language Model AI

- **Large Language Models (LLMs):** These are a specific type of Generative AI.

- LLMs are designed specifically to generate text. They are trained on massive datasets of text and code, enabling them to produce human-like written content.

- Therefore, all LLMs are generative AI, but not all generative AI are LLMs.

https://youtu.be/5sLYAQS9sWQ

Large Language Model (LLM):

- A Large Language Model (LLM) is a sophisticated type of artificial intelligence (AI) that's designed to understand and generate human-like text. Here's a breakdown:

- **Core Function:**
  - LLMs excel at processing and producing natural language. This enables them to perform a wide range of tasks, including:
    - Answering questions.
    - Generating various forms of text (stories, articles, etc.).
    - Translating languages.
    - Summarizing information.
    - Producing computer code.

Most Recognized of LLMs

- **Chat-GPT (G**enerative **P**re-trained **T**ransformer**)** Series (OpenAI): This is perhaps the most widely recognized family of LLMs.

- Examples include GPT-3, GPT-4, and the very recent GPT-4o.

- These models are known for their ability to generate remarkably human-like text, and they power applications like ChatGPT.

- They are used for a very wide range of things, including: content creation, chat bots, and coding.

Other Large Language Models (LLMs):

Gemini (Google):
Google's Gemini is a highly advanced multimodal large language model. It's designed to be highly efficient and capable of handling various types of information, including text, code, images, and more.

LLaMA (Meta):
Meta's LLaMA is an open-source LLM that has gained popularity for its performance and accessibility, contributing to further research and development in the AI community.

Claude (Anthropic):
Claude is an LLM designed by Anthropic and is known for its focus on safety and helpfulness.

Let's go to: www.gemini.google.com

Chatbots (the common name for LLMs)

- Chatbots are used to:
  - Generate ideas
  - Answer questions
  - Translate languages
  - Image generation
  - Reword and revise

  Let's go to: Microsoft Co-Pilot (you will need to sign into your Microsoft account)

"Google it" versus "Gemini it"

▶ "Googling it" involves a web search involves you collecting the information online from the Internet, then using that information to solve your problem.

▶ "Gemining it" involves letting the AI model do the collecting of information then giving you the information to solve your problem

AI takes much more computational power and electrical energy to provide you with the information you seek.

Popular AI Terms/Concepts

- **Machine Learning (ML):** A subset of AI that focuses on enabling machines to learn from data.

- **Deep Learning:** A subfield of machine learning that uses artificial neural networks (algorithms) to analyze complex data.

- **Natural Language Processing (NLP):** Enables computers to understand and process human language, i.e., translating languages.

- **Computer Vision:** Enables computers to "see" and interpret images and videos.

Let's go to Google Lens on your smartphone

AI Applications:

- Virtual assistants
- Self-driving cars
- Medical diagnosis
- Fraud detection
- Recommendation systems
- image and text generation

Agentic AI is about creating AI systems that can think and act independently, bringing a new level of intelligence and autonomy to various applications.

In essence, AI is about creating systems that can intelligently handle tasks, often by learning from data, and in ways that resemble human intelligence.

Let's go to: NoteGPT.io

Image Generation AI Models:

DALL-E (OpenAI):

- DALL-E is known for its ability to create images from textual descriptions, pushing the boundaries of creative AI.

Stable Diffusion:

- Stable diffusion is an open-source deep learning text-to-image model.

Midjourney:

- Midjourney is another powerful AI image generation tool, accessible via discord.

Other Notable AI Models:

BERT (Google):

- BERT revolutionized natural language understanding, improving the accuracy of search engines and other language-based applications.

AlphaFold (DeepMind):

- AlphaFold has made significant breakthroughs in predicting protein structures, with major implications for drug discovery and medical research.

Whisper (OpenAI):

- Whisper is an audio transcription and translation model.

Let's go to: www.huggingface.com

Transition to AI in HR

The video discusses the evolution of artificial intelligence in Human Resources, highlighting its transformative impact on HR processes and workforce management from the late 20th century to the present.

https://youtu.be/v6f3Ge2TPok

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Recruitment and Talent Acquisition:**
  - AI is used to automate resume screening, identify qualified candidates, and even conduct initial interviews through chatbots or video analysis.
  - Companies like:
    - **HireVue:** Uses AI for video interviewing and candidate assessment.
    - **Paradox:** Offers AI-powered recruiting assistants.
    - **iCIMS:** Provides AI-driven candidate engagement and communication.
    - **Amazon:** Uses AI and machine learning to improve their hiring processes.
    - **Unilever:** Has implemented AI for video interview analysis to streamline hiring.

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Employee Onboarding:**

- Chatbots and virtual assistants: Streamline onboarding processes, answer employee questions, and provide 24/7 support.

- Leena AI: An AI-enabled HR chatbot that automates HR tasks and workflows.

https://youtu.be/ApR8GL0VMWg

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Performance Management:**

- **Lattice:** Helps with performance management and employee engagement.

- **Effy AI:** Streamlines and enhances the 360 review process.

- **HR Signal:** Analyzes employee feedback to provide insights into satisfaction and workplace morale.

- **BambooHR:** Offers AI-driven solutions for HR management, including applicant tracking and employee self-service.

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Predictive Analytics:**

- **Visier:** AI for Predictive Workforce Analytics.

- **PredictiveHR:** AI for Employee Retention and Turnover Analysis.

- **SAP SuccessFactors:** Provides an all-encompassing AI-powered platform to transform HR processes.

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **HR Automation & Efficiency:**

- **Zoho People:** A cloud-based HR suite with a full range of features for HR teams.

- **Talla:** AI for HR Chatbots and Virtual Assistants.

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Talent Development and Learning:**

- **Cornerstone OnDemand:**

    Cornerstone is heavily investing in AI to enhance its LMS.

- **TalentLMS:**

    TalentLMS is beginning to weave AI into it's offerings.

- **Docebo:**

    Docebo has focused on using AI to enhance the learning experience, and to make it more efficient.

How does AI relate to HR?

Key Areas of AI Models used in HR:

- **Diversity, Equity, and Inclusion (DEI)**

- **Pinpoint:**

    Pinpoint offers "blind hiring" software that automates the anonymization of applications.

- **SeekOut:**

    Their platform provides advanced diversity filters and search capabilities, enabling companies to identify candidates from underrepresented groups**.**

How does AI relate to HR?

It's important to remember that the use of AI in HR is still evolving, and ethical considerations are crucial. Companies must ensure that AI systems are fair, transparent, and do not perpetuate discrimination.

Are there AI risks related to HR?

73% of HR leaders struggle to implement AI solutions compliantly, risking millions in penalties and damaged reputations. As artificial intelligence transforms the workplace, **mastering AI governance isn't just an option** – it's critical for your survival.
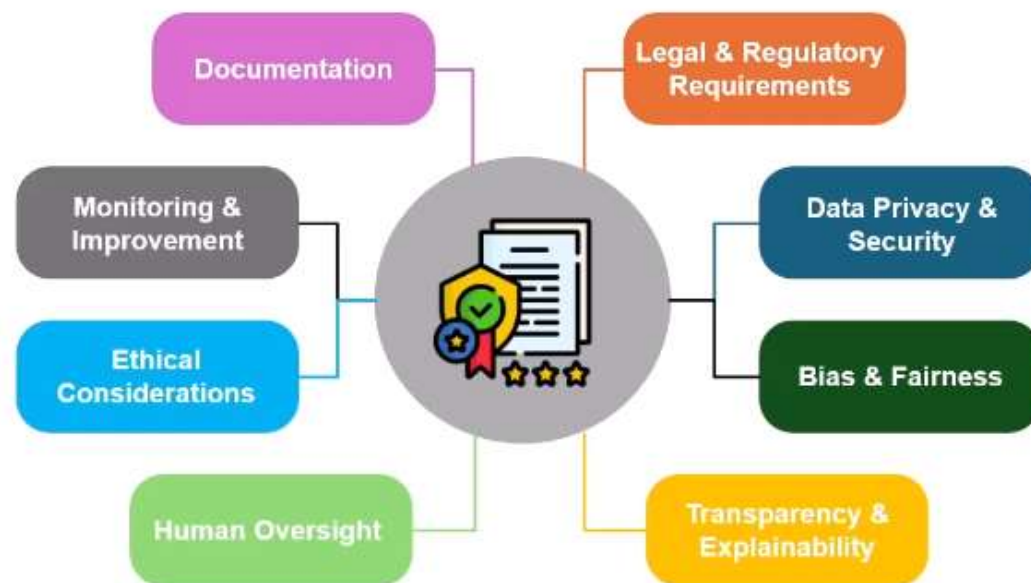
Are there AI risks related to HR?

Risk:

Algorithmic Bias:

AI algorithms are trained on historical data, which may reflect existing societal biases. This can lead to discriminatory outcomes in hiring, performance evaluations, and promotions, perpetuating inequalities.

Example: An algorithm trained on historical hiring data that favored male candidates might continue to do so, even if unintended.

Mitigation:
- Ensure data diversity during training.
- Regularly audit algorithms for bias.
- Implement fairness-aware AI techniques.

Are there AI risks related to HR?

Risk:

Data Privacy and Security :

AI systems collect and process vast amounts of sensitive employee data, increasing the risk of data breaches and privacy violations.

Example: Unauthorized access to employee data could expose personal information, leading to identity theft or other harms.

Mitigation:
- Implement robust security measures.
- Comply with data privacy regulations (e.g., GDPR, CCPA).
- Ensure transparency in data collection and usage.

Are there AI risks related to HR?

Risk:

Lack of Transparency and Explainability:

AI algorithms, particularly deep learning models, can be "black boxes," making it difficult to understand how they arrive at decisions. This lack of transparency can erode trust and make it challenging to address bias.

Example: An AI system might reject a candidate without providing a clear explanation for the decision.

Mitigation:
- Prioritize explainable AI (XAI) techniques.
- Document the decision-making process.
- Provide clear explanations to candidates and employees.

Are there AI risks related to HR?

Risk:

Over-Reliance and Loss of Human Touch:

Over-reliance on AI could lead to a loss of human judgment and empathy in HR decisions.

Example: Relying solely on AI-powered assessments might overlook valuable soft skills or cultural fit.

Mitigation:
- Use AI as a tool to augment, not replace, human judgment.
- Maintain a human-centered approach to HR.
- Ensure human oversight in critical decisions.

Are there AI risks related to HR?

Risk:

Ethical Considerations:

The use of AI in HR raises ethical concerns about fairness, equity, and accountability.

Example: Using AI to monitor employee performance could raise concerns about privacy and surveillance.

Mitigation:
- Develop ethical guidelines and principles for AI use.
- Engage in open and transparent discussions about ethical implications.
- Involve employees in the implementation of AI tools.

Are there AI risks related to HR?

Risk:

Public AI Cloud vs Private AI Cloud

Private cloud infrastructure for AI workloads: This refers to the underlying IT infrastructure that allows companies to run AI applications in a secure, private environment. You need to have a conversation with your IT staff as to whether you should choose a public or private cloud AI software solution.

- SAP SuccessFactors
- HPE Private Cloud AI
- IBM watsonx
- CloudApper

https://youtu.be/iq4ZuMz6H3A

When implementing AI in HR, data privacy and security are paramount. Private cloud deployments can provide an extra layer of security for sensitive HR data.

In Conclusion

By carefully considering these risks and implementing appropriate mitigation strategies, HR professionals can harness the power of AI while safeguarding the rights and well-being of their employees.