Texas Workforce Commission

AI in the Workplace

What is Artificial Intelligence?

- **Artificial Intelligence (AI)** - machines using data to learn, adapt, and perform human-like tasks like problem-solving and decision-making.
- **Machine Learning (ML)** - a subset of AI that involves training algorithms to recognize patterns and recommend decisions based on data.
- **Generative AI** - AI that can create original content, such as images, text, and videos, by learning from existing data and generating new ideas.[1]

Top AI Skills

AI is changing workplace dynamics and spurring demand for new skills. This pioneering technology enables workers to spend less time on monotonous tasks that can be automated and more time on activities involving creativity, relationship building, and intensive problem solving. To that end, the following benefits of AI are re-shaping how people work:

Decision support - AI-powered tools are being used to assist human decision-makers by rapidly analyzing data, identifying patterns and trends, and making recommendations. This can lead to more informed and data-driven decision-making.

Augmented work - AI is being used to augment and enhance human capabilities, such as by providing real-time translation, writing assistance, and task prioritization. This can allow workers to be more productive and focus on higher-level tasks.

Personalized experiences - AI-driven personalization is being used to tailor products, services, and workflows to the needs and preferences of individual employees and customers.

Automation - AI is used to automate various tasks and processes, from data entry and analysis to customer service and even some managerial functions. This can lead to increased efficiency and productivity.

Workforce planning - AI is being used for hiring, talent management, and workforce planning by analyzing large datasets to predict skills gaps, turnover, and optimal staffing levels.

Remote work and collaboration - AI-powered tools are enabling more effective remote work and distributed collaboration.[2]

[1] Texas Workforce Commission, "AI Initiatives at the Texas Workforce Commission," presentation, June 2024.
[2] Text generated using Claude [https://claude.ai/chats], Anthropic, April 2024.

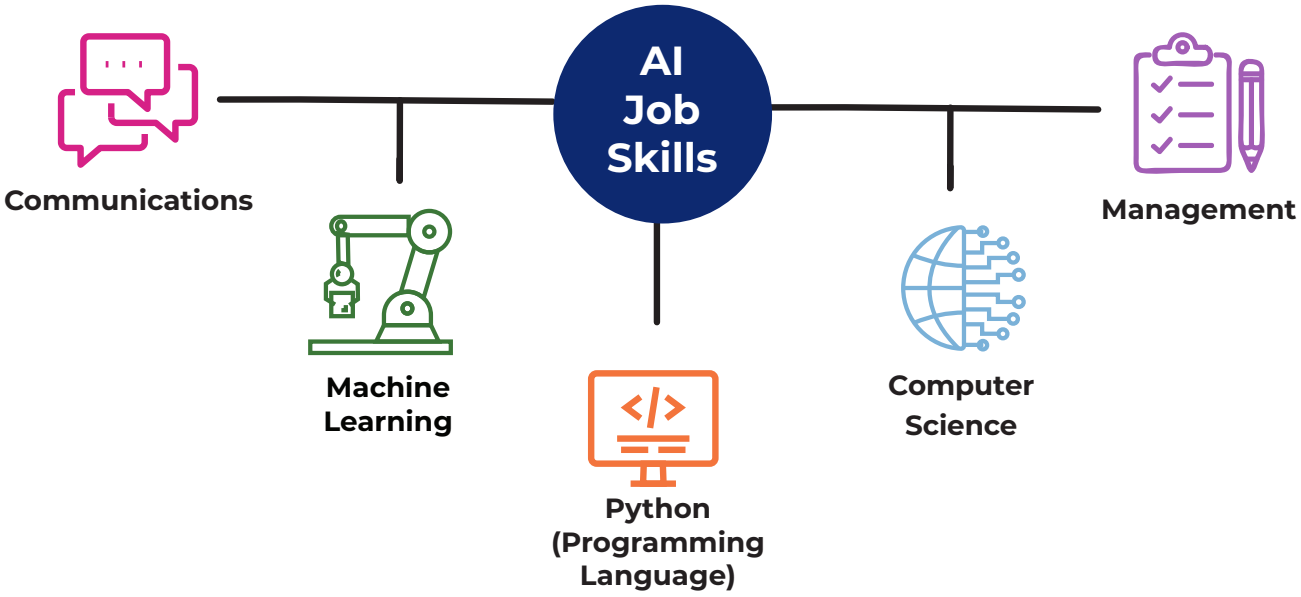
AI Impacts on the Texas Economy

AI is already beginning to re-shape large economies, and this is especially true for Texas—one of the leading states for AI-related jobs. Texas is ranked 4th in the United States for job postings with AI mentioned (2,003 job postings). Emerging AI job titles like prompt engineer, AI researcher, machine learning engineer, natural language processing engineer, and AI ethicist are becoming increasingly common in the Texas job market.[3]

AI may eventually impact every industry and occupation. Helping businesses and workers adapt to—and ultimately take advantage of—these changes will require a "lifelong learning mentality" that emphasizes adaptability through regular upskilling and reskilling.

Over the last four years, certain AI-related skills have already grown in demand, as observed through job postings with artificial intelligence as an element of the posting. These include:

- Communications
- Machine Learning
- Python (Programming Language)
- Computer Science
- Management



[3] Lightcast, April 2024.

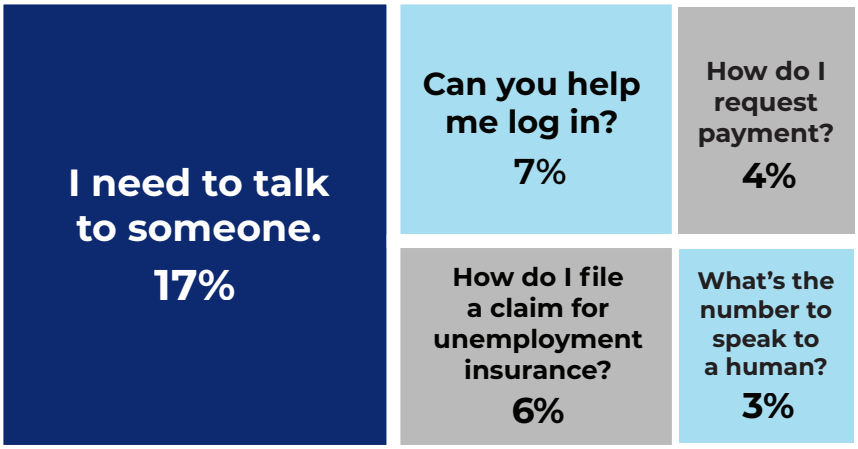
How TWC Uses AI to Support Customers

As an early adopter of AI, the Texas Workforce Commission (TWC) is committed to leveraging it responsibly in support of the entire Texas workforce system. To this end, TWC uses AI to supplement—rather than replace—staff by functioning as an extension of human workers.

Larry the Chat Bot

At the start of the pandemic in 2020, TWC launched its AI-enabled Larry the Chat Bot. Initially, the chatbot was introduced to answer the 20 most common customer questions about unemployment insurance and free up TWC phone lines, so agents could assist with more complex customer needs.

Top Free Type Messages to Larry



By the time it was updated with a newer version in March 2023, Larry had responded to more than 21 million queries and could answer five-times as many questions relating to a broader scope of TWC programs. Nevertheless, Larry has not replaced any TWC employees, and humans will continue to play a critical role in these processes. After all, the most common question that customers asked Larry was: "I need to talk to someone."

Larry also included a "request TWC contact me" feature which allowed customers to get in line for a call back from TWC staff so customers didn't have to wait on hold when call volumes are high.[4]

SARA/RehabWorks

TWC also leverages AI to power SARA, a 24/7 virtual assistant that facilitates communication and support for customers of the agency's Vocational Rehabilitation (VR) program. SARA's AI functionality streamlines communication between counselors and customers, allows customers to request appointments based on counselor availability, and sends reminders for upcoming appointments. In addition to automating and simplifying these processes, SARA also enables staff to prioritize meaningful customer engagement over impersonal administrative duties.

Child Care – IntegrityCentral

TWC uses an algorithm-driven system, IntegrityCentral, to help Local Workforce Development Boards (Boards) detect potential fraud in the Child Care Services program. The application identifies statistical anomalies in program administrative data and gives users the ability to view what is statistically significant about that specific record set. IntegrityCentral is a springboard for Boards to conduct further analysis and fact-finding to support potential fraud determinations.

[4] Texas Workforce Commission, Chat Bot Top Free Type Use Cases, February 2022.

Looking Ahead

TWC currently relies on sandboxes within secure government clouds to workshop new AI tools on an ad hoc basis. In addition to being secure and compliant with AI-related policies, these sandboxes allow TWC to test new uses for AI tools, analyze data, and evaluate outcomes within a controlled environment. The agency then draws on these insights to establish best practices for—and more rapid scalability of—AI tools that prove successful in their use cases. Examples of active use cases include: [5]

Customer Service AI - Chatbots

Data Analysis & Content Summarization AI - Call Transcription and Bill Analysis

Document AI - Optical Character Recognition

Coding AI - Legacy Code Modernization

TWC is helping job seekers find the skills training they need to compete in a shifting market. The Texas Workforce Solutions offices provide resources to introduce students and job seekers to new forms of AI technology. Online learning tools such as those offered through TWC partner, Metrix Learning, are valuable assets for building skills as AI changes and new jobs emerge.

In support of Texas' future workforce, TWC is developing a system that can monitor job postings, extract the skills associated with them, and project their demand into the future. Insights from this system will feed back to TWC's education and training partners, so they can prepare people for the careers and the skills that they're going to need in the future.

[5] Texas Workforce Commission, "AI Initiatives at the Texas Workforce Commission," presentation, June 2024.