ARTIFICIAL INTELLIGENCE CAREER IMPACTS

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Artificial Intelligence (AI) and associated technologies are being labeled the fourth industrial revolution for their potentially seismic impacts on an economy's industries and occupations. The previous revolutions (steam engines and mechanization in the 1700s, electricity and mass production (1900s), and computers and the internet (2000s) greatly increased productivity through the use of revolutionary new technologies. The result was a very much improved way of producing goods and providing services leading to a very much higher level of living.

A primary feature of industrial revolutions is a completely new and improved way of accomplishing work tasks for many existing occupations. At the same time they eliminate certain jobs which are no longer needed and develop new ones to meet the new technology requirements. AI is following that path.

This development is evident in the initial stages of AI. The technology so far has facilitated work in many occupations by such processes as automating and vastly improving data collection and analysis, topic research, and document preparation.

In its initial stages occupations most impacted by AI have been in writing professions, customer service, and basic software development. Most recently AI advances are affecting graphic design and photography jobs due to new image generating tools and transportation occupations by advances in autonomous driving vehicles.

Because of its cognitive abilities long term AI impacts will be concentrated in higher skilled and professional occupations rather than the lower skilled jobs that previous automation affected. Occupations that require interpersonal skills are less likely to be affected include childcare, social work, protective services and nursing. Other occupational groups that are expected to be less impacted by AI are skilled crafts workers and creative workers such as artists and actors.

To thrive in the AI world workers will need to continuously learn and utilize new AI tools that are relevant to their job. They must be resilient, creative, good problem solvers, and highly proficient in communications and teamwork.

The full extent and pace of the AI revolution depends on how rapidly the technology advances and how it is accepted and implemented in the work place. Previous revolutions took many years to be fully integrated in the economy. Whether AI is so innovative that this timeline is accelerated remains to be seen.

(For a comprehensive listing and analysis of all occupations that are most and least likely to be most affected by AI see the Task Force article by Marilyn Maze. She also enumerates duties and tasks that are most likely to change across most occupations.)

(For a listing and description of new occupations in data and computer skills arising from AI see the Task Force article by Deborah Sgro.)

(For a list of resources that provide updates on how AI impacts careers see the Task Force listing by Janet Wall.)