

CTE Prepares Learners for the Future of Work

The second principle in Advance CTE's *Putting Learner Success First* vision is "all learners are empowered to choose a meaningful education and career."³ This means equipping learners with the skills to obtain a career with a family-sustaining wage. As more workers turn to freelance work and more job tasks are automated, Career Technical Education (CTE) can equip learners with the knowledge and experiences needed to obtain a sustainable, high-wage career in a rapidly shifting labor market.

Predicting the Future of Work

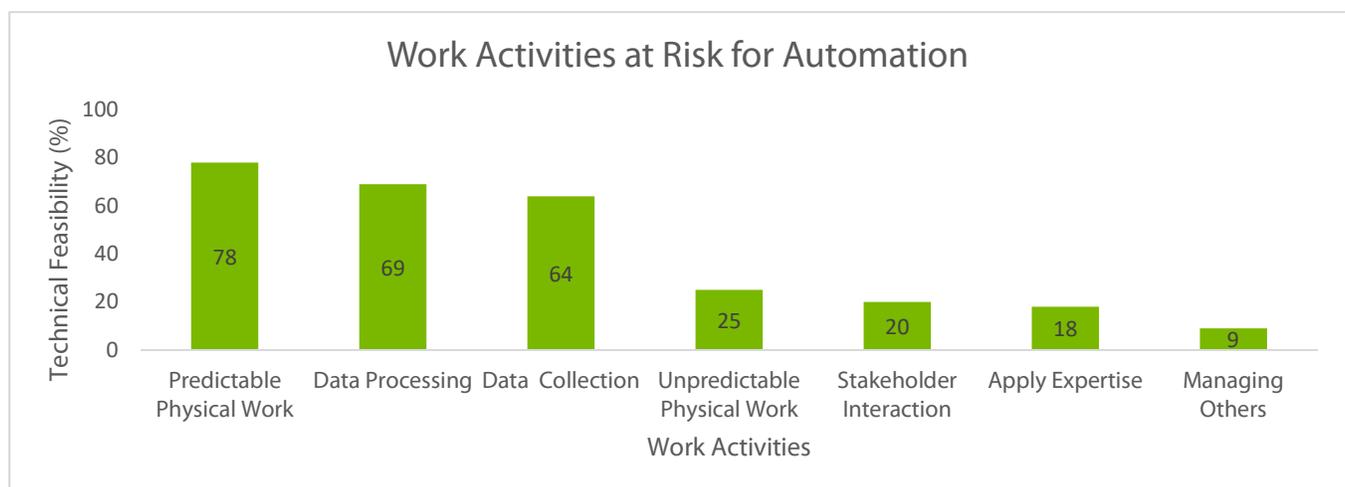
By 2030, an estimated 38.6 million full-time jobs in the United States will be displaced by automation.⁴ Low-skill and low-income workers face the highest risk of being displaced by automation.⁵ Additionally, workers may increasingly participate in the gig economy through alternative work arrangements. There is no consensus on whether the gig economy is shrinking or growing. A 2018 U.S. Department of Labor report shows a consistent decrease in alternative work arrangements since its last report in 2005,⁶ which contradicts reports that indicate that freelance workers will become the majority in the workforce within a decade.^{7,8} As the world of work evolves in ways that may not be predictable, CTE can play a role in equipping learners with the skills that transcend, and prepare learners for, shifting work opportunities.

What is the Future of Work?

The "future of work" refers to the displacement of jobs by automation and the increase in alternative work arrangements. Alternative work arrangements are representative of temporary help agency workers, on-call workers, contract workers and independent contractors and freelancers.¹ Alternative work arrangements also encompass what is referred to as the "gig-economy," "sharing economy," "online platform economy" or "on-demand economy." The online platform economy is defined as "economic activities involving an online intermediary that provides a platform by which independent workers or sellers can sell a discrete service or good to customers."²

Work Activities Most Likely to be Automated

Rather than occupations, it is work activities within occupations that are more at risk of automation.⁹ Nine percent of U.S. individuals face high automobility, meaning at least 70 percent of their jobs are able to be automated.¹⁰ Work activities at risk for automation, as measured by their technical feasibility (percent of time spent on activities that can be automated by adapting currently demonstrated technology), are represented in the proceeding chart:¹¹



Source: McKinsey & Company

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CTE and the Future of Work

Unlike the vocational education of the past, which prepared learners for occupations with high levels of work activities at risk for automation, the CTE of today provides a pathway for learners to careers with family-sustaining wages. High-quality CTE prepares learners for the future of work by:

- Equipping learners with real-world skills, such as entrepreneurial and employability skills, that are foundational and transferrable across rapidly shifting sectors and work activities;
- Placing learners on a path to postsecondary credential attainment that translates into in-demand, high-skill occupations;
- Bringing business and industry to the table to ensure that CTE programs are relevant and future-focused;
- Supporting learners' efforts to "upskill" through programs of study that support stackable and short-term credentials of value; and
- Encouraging partnerships between K-12, postsecondary and industry through program of study frameworks.

Leveraging Policy to Address the Future of Work: Washington's Future of Work Task Force

In March 2018, the Washington legislature passed SB 6544,¹² which created the Future of Work Task Force to recommend mechanisms and structures for sustainable industry sector partnerships and develop a policy framework for a talent development pipeline. Under the direction of the task force, the Workforce Training and Education Coordinating Board must research best practices, gather input from employers and non-profit organizations, identify metrics and recommend a possible dashboard for tracking industry and talent data to prepare the state for the future of work.

Future-Focused Program: The Network and Engineering Program at Summit Technology

What originated more than 15 years ago in Missouri as a computer repair class has transformed into a state-of-the-art cybersecurity program. Launched in 2012, The Network Engineering Program¹³ at Summit Technology in Lee Summit, Missouri emerged after local business came together around the shortage of qualified talent in Information Technology (IT). K-12, postsecondary and business partners came together to identify key competencies needed in the field, creating a pipeline from classroom to employment. Advisory partners continue to identify key competencies on a regular basis, ensuring students receive cutting edge preparation and the program remains relevant to the future of work.

¹ http://scholar.harvard.edu/files/lkatz/files/katz_krueger_cws_v3.pdf?m=1459369766

² <https://www.jporganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf>

³ <https://careertech.org/vision>

⁴ <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>

⁵ https://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en

⁶ <https://www.bls.gov/news.release/pdf/conemp.pdf>

⁷ <https://www.upwork.com/i/freelancing-in-america/2017/>

⁸ <https://www.fisherphillips.com/gig-employer/new-government-report-on-gig-economy-size>

⁹ <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/where-machines-could-replace-humans-and-where-they-cant-yet>

¹⁰ https://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en

¹¹ <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/where-machines-could-replace-humans-and-where-they-cant-yet>

¹² <http://apps2.leg.wa.gov/billsummary?BillNumber=6544&Year=2017&BillNumber=6544&Year=2017>

¹³ https://cte.careertech.org/sites/default/files/2017ExcellenceActionSummitTechnologyAcademy_IT_FINAL_0.pdf BROUGHT TO YOU BY: