

The Future of Work – New and Emerging Occupations

“The future of work isn’t just a far-off thought – it’s here. Years of global economic and political upheaval have already changed the way we live and work.” This was written in a study published in April 2020¹ that surveyed 3,158 senior managers and frontline IT staff working globally in Financial Services, Healthcare, Insurance, Manufacturing, Communications, and Public Sector organizations. The study focuses on frontline perceptions of how the accelerated pace of technology adoption will create new industries, new businesses and new occupations at an unparalleled rate. These new and emerging occupations will define much about the future of work in the U.S. and around the world. This study is just one of many research documents, articles and observations that share similar findings and perspectives.

The study was executed and written prior to the full impact of COVID-19, and therefore, indicates that the acceleration of new and emerging occupations due to technology advances was well underway pre-COVID. The major takeaway is that business leadership, IT leadership and even frontline employees seem to agree that technology is key to improving workplace performance and therefore, resistance to technology adoption is at an all-time low. Here is a synopsis of some specific study findings:

- 78% of all respondents believe that technology will change the way that we work significantly over the next two years.
- 72% of all respondents believe that IT leadership is taking the lead in tech adoption.
- 59% of all respondents believe that business leadership is taking the lead in tech adoption.
- 66% of all respondents say employees are asking for better technology to improve how they work.
- 65% of senior business leaders believe technology achieves higher quality work.
- 50% of senior business leaders believe technology achieves more reliable work.
- 49% of senior business leaders believe technology increases employee satisfaction.
- 46% of senior business leaders believe technology increases cost savings.
- 43% of senior business leaders believe technology increases revenue generation.
- Percentage of respondents already investing in the following technologies:
 - 80% in business process management software
 - 70% in deep learning
 - 68% in machine learning
 - 67% in robotic process automation

The COVID-19 pandemic increased the acceptance of remote working and the adoption of virtual meeting platforms. But in order to work remotely, whether from home or remote offices, workers also had to utilize a variety of technology platforms to perform their work on a

¹ Pegasystems (2020). *The Future of Work, New Perspectives on Disruption and Transformation*.
<https://www.pega.com/the-future-of-work>

daily basis. And in many cases, what they did as well as how and when they did it, had to adapt to the new normal as well. In other words, job duties for many occupations have and continue to change in order to incorporate more and more technology. There is a very reasonable expectation that the impact of COVID would reduce the resistance to technology adoption even more than when this study was published in April 2020.

The result of increasing tech adoption is the digital transformation of more and more occupations. For example, an accountant must not only understand accounting, they must also be proficient at financial software tools and technology platforms as well as digital management and security of financial information. As a result, a host of new businesses and occupations for Fintech have appeared. In fact, the Tampa Bay EDC has classified Fintech as one of their five growth industries. Further examination of their other four growth industries, Cybersecurity, Health Tech, Supply Chain Management Technology and Cancer Solutions, indicates that they are all rooted in technology adoption. This same trend can be identified in regions all across the United States.

Other examples exist or are appearing. Another example consists of the emergence of new pre-apprenticeship and apprenticeship programs in Hillsborough County for a Supply Chain Technologist. These programs provide training and certifications in software development, Six Sigma and supply chain principles. This knowledge base will provide a Supply Chain technologist access to a wide variety of career opportunities. Agribusiness technology is yet another emerging field that is highly relevant to Hillsborough County workers looking for new, exciting and well-paid career opportunities. According to Simon Bollin, the Agribusiness Development Manager for Hillsborough County, we are the second largest agribusiness employer in the State of Florida. Our region has a significant need for agribusiness technology specialists for both business and operations of farms, equipment manufacturing and repair, large agriculture-based businesses, etc.

Workforce shortages are also driving the need for technology adoption, especially for jobs requiring low-wage labor. Businesses that depend on this labor pool are in a crisis. Their need to do more with less workers is driving the adoption of technology to assist and automate manual processes like never before. And many of these processes are not the applications or industries historically considered for automation, such as the food service industry. These new applications are creating opportunities for applications specialists that design, build, implement and maintain specific types of automation for specific industries.

In conclusion, the rapid acceleration of technology adoption is driving the future of work, specifically the emergence of new tech-integrated occupations and corresponding career opportunities. In the near future, almost every job will require some level of knowledge, skills and abilities in digital technology. The digital transformation of industries, businesses and occupations is well underway and accelerating. Workforce development organizations and stakeholders must conduct a parallel effort to digitally transform the workforce, especially the disadvantaged populations that will fall even further behind if not prepared for this future.