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Digital Disruption and the Future of Work

The digital revolution has brought undisputable gains, including the World Wide Web, Google and the iPhone. Nevertheless its impact on the workforce has arguably been more disruptive than technological revolutions of the past. In our widely discussed paper entitled *The Future of Employment: How Susceptible are Jobs to Computerisation?*, my co-author Michael Osborne and I estimate that 47 percent of the US workforce is now susceptible to automation. Although these estimates cannot be directly transferred to other countries, the type of jobs that will be affected is the same. In particular, similar to the United States, jobs in transportation, logistics, as well as office and administrative support, are at “high risk” of automation. Furthermore, the bulk of service and sales occupations, where the most job growth has occurred over the past decades, are now for the first time at risk.

Digital technologies do however not only destroy jobs, but also create jobs in entirely new occupations and industries. For example, Video and Audio Streaming industry, Online Auctions, and Web Design constitute new industries that appeared in official classifications for the first time in 2010, following a series of recent innovations. Yet, the magnitude of new jobs created from the arrival of new technologies throughout the 2000s has been strikingly small: in 2010 only about 0.5 percent of the US workforce was employed in new industries that did not exist a decade earlier. Workers in these industries are also much better educated than most workers, meaning that although technological progress continues to create new jobs, these have largely been confined to skilled labour. Thus, as technology races ahead, workers will need to acquire more sophisticated skills, allowing them to reallocate to new jobs being created.