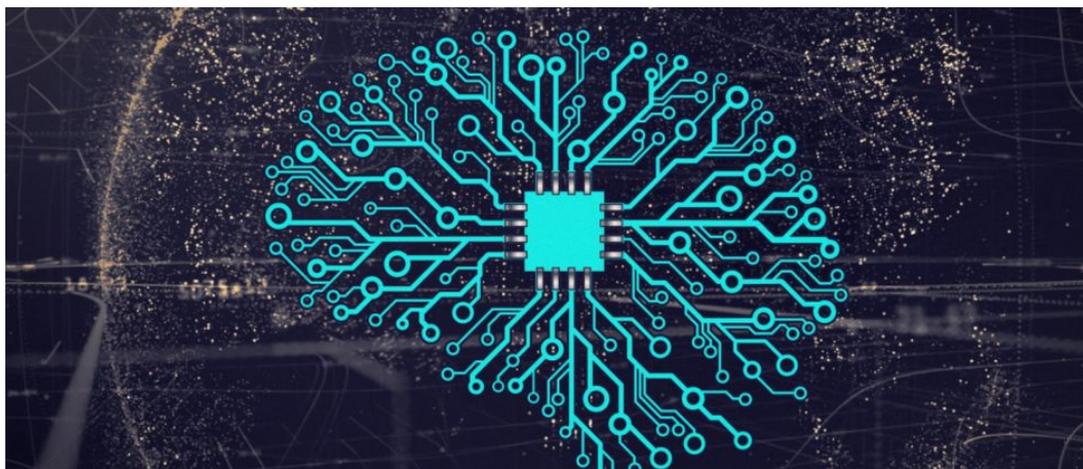


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## How to Survive Artificial Intelligence

by David Salisbury



*Economists expect that widespread automation driven by artificial intelligence will displace workers across many industries. Even if the effects of automation are exaggerated, it is clear that the labor market will need to adjust. Which professions are the safest?*

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**Wild speculation is abound for what advancements in artificial intelligence will mean for the future.** From replacing dating with perfect-mate robots, to said robots becoming sentient and turning humanity into cattle, many fear the unknown. But in business and production innovation, the threat AI will have on the American workforce is not exactly wild-eyed malarkey. An influential 2013 forecast by Oxford University said that about 47% of jobs in the US and 35% in the UK were at “high risk” of being automated over the

following 20 years. A more recent 2017 study found that 10 million service and warehouse jobs are at high risk of displacement within the next 5 to 10 years in the US alone. This includes many jobs in the food service and custodial sectors, among other manual labor positions.

Metropolitan centers like the San Francisco Bay Area, the tech mecca of the US, are already seeing people replaced by machines. In San Francisco, companies like Eatsa allow customers to order food online then arrive to pick it up in a digital cubby with zero customer service interaction. Berkeley pedestrians can see autonomous Igloo coolers on wheels called “Kiwis” breezing by their legs to deliver food to neighborhood patrons. While these examples are just boutique conveniences, there have already been some major changes within large manufacturing companies that could signal a dramatic increase in automation. Foxconn, the largest contract manufacturer of iPhones, laid off 60,000 workers and replaced them with industrial robots. Nike and Reebok are making plans to automate production to meet high demand and create quicker turnaround times. Walmart has patents for autonomous robots that will move shopping carts around stores. In addition, Amazon already uses 45,000 robots in various warehouses.

Despite these trends, American blue-collar workers shouldn't cower in fear of being rendered obsolete. They should use these emerging innovations as motivation to determine which industries are at the highest risk of automation, and proactively take steps to improve their job security by continuing to develop new skills or by exploring opportunities in other industries.

## The Kids Are Alright?

With jobs like food service and retail set to be automated, it's clear that many entry-level jobs are a target of automation. This could prove detrimental to teenagers in particular who traditionally enter the workforce during high school as part-time workers. What are they to do to make cash for their first car and learn valuable money management skills? A possible way to turn lemons to lemonade could be to seek paid internships that could give an early leg up for a later professional career.

When deciding where to intern, kids should consider careers that require more human-to-human service and social cognition. Nursing would be a perfect example. According to the same Oxford University study, nursing jobs are estimated to have a less than 1% probability of being automated. The high stakes in healthcare, unpredictable work environments, and the degree of emotional intelligence required combine to make the job of nurses and healthcare aides hard to automate. As stated in the upcoming CMR article “Artificial Intelligence as a Growth Engine for Healthcare Startups: Emerging Business Models”, current AI applications in medicine are relegated to rule-based repeated tasks like data verification, facial recognition, using precision medicine to tailor a patient’s needs, and decisions with less risk. The technology requires far more advancements and transparency until humans will trust it to replace human-to-human care and diagnosis.

Also, careers that require creativity and large-scale planning, like advertising or marketing, would be smart to explore. Because as mundane jobs are automated, market competition for creative intelligence and the arts will increase. AI’s ascendancy could unintentionally magnify the importance of the arts, as creating quality works of art, music, film, and television are still a uniquely human domain. Sure, there could one day be software that can replicate pop sensibilities in songwriting or build a story arc in films. But a person connects best with art made by another human who’s had life experiences and emotions that the mind and heart can connect with. That is what transports a person into new worlds and perspectives. Perhaps next generations will be perfectly happy having automated art downloaded directly into their cerebrums through an iBrain app. But for now, only a human can hit another human in the feels.

## Old Dogs Need New Tricks

Adults already in positions at high risk of becoming automated could of course look into management or sales department opportunities at their companies that require more interpersonal skills that AI is still years away from replicating. But if one is more of an introvert and prefers less of a social position, perhaps a change in profession altogether would be better. A business sure to thrive in tech-rich cities where the economic explosion demands new offices and infrastructure is construction. The construction business requires both human supervision and manual labor that at current time cannot be

replicated with automation. Parts of the process that are repetitive may be automated, like brick laying or cement mixing. But construction workers generally are at a low risk of displacement from robots. Although companies have interest in using drones for site inspection and 3D printing for material making, these technologies are still in nascent stages and face regulatory uncertainties. These technologies will need to go through heavy regulatory scrutiny before commercial approval will move forward.

And there is still one classic American blue-collar profession that, despite years of alarming headlines, could survive AI's influence for years to come – trucking. With fully autonomous vehicles still in the very-early stages of research and development for compact city-use, let alone for large-scale nationwide use using 18-wheelers, the need for truckers to move necessary materials and goods across the country will remain a serious demand to accommodate economic growth. The US has had a shortage of 48,000 truck drivers since at least 2015. Because the occupation can be grueling and most young people do not seek this profession, earning money on the open road will be a safe occupational choice for older adults as cities continue to boom and materials must be transported to and from them. Although companies do have trucking in mind for automation, it's unlikely to happen in the next decade due to regulatory challenges. Compounded with uncertain weather conditions and unpredictable human drivers, automated trucking is a high-risk venture companies are not likely to pursue until higher technological advancements are achieved.

## Much Ado About Nothing?

In the end, AI's impact on the job market may just be more wild speculation as the pace and intensity it will influence the job market may be far less dire than the aforementioned studies have suggested. The Organisation for Economic Co-operation and Development (OECD), a French intergovernmental economic organization, argues the Oxford study's forecast exaggerates AI's potential impact because it had relied on a broad grouping together of jobs with the same title. The OECD instead puts the number of jobs at high risk for automation around 10% in the US and 12% for the UK – fractions of what Oxford anticipates in 20 years. The only hard truth is that the future is unwritten and is full of

many possibilities. With that being the case, it'd be better to use this speculation as incentive to not only to prepare for potential job loss, but also to qualify for even better opportunities.

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