If new technologies really cut jobs, we would all be out of work by now, writes Walter Isaacson.

Lord Byron was a Luddite. The Romantic poet’s only speech in the House of Lords defended the followers of Ned Ludd, who were smashing the mechanical looms in England during the early 1800s because they feared the machines would put people out of work. Back then, some believed that technology would create unemployment. They were wrong. The industrial revolution made England richer and increased the total number of people in work, including in the fabric and clothing industries.

Byron’s daughter Ada, Countess of Lovelace, was more prescient. On a trip through the English Midlands, she admired how punch cards instructed the looms to produce beautiful patterns, and envisaged how such cards could enable the numerical calculator being designed by her friend Charles Babbage to process not just numbers but words, music, patterns and anything else that could be encoded in symbols — a computer, in other words.

Today’s pessimists predict that these computers will put people out
of work. These latter-day Luddites are also wrong. Technology can be disruptive. It can eliminate jobs, from weavers to buggy-whip makers. But 200 years of data show it improves productivity and increases wealth, leading to more demand and new types of jobs.

Take those mechanical looms. They were invented just after 1800 by Joseph Marie Jacquard in Lyon. Did that end up reducing employment in the textile industry in eastern France? No. Two centuries later, Lyon is Europe’s top centre for high-tech textiles. The city is the home of the Textile and Chemical Institute, 40 labs and schools, 140 companies and 10,000 textile jobs. Nor did the machines destroy employment in England, as Lord Byron feared.

The combination of computers and the internet began transforming our economy decades ago. The “app economy” is the latest example. It began in 2008 when Steve Jobs yielded to the advice of his team at Apple and decided to let outside developers create apps for the iPhone. The global app economy last year was worth $100bn, more than the film industry. This is an industry that did not exist seven years ago.

Apps and other advances in technology have helped create new forms of work, such as the “sharing economy” in which enterprising folks can rent out rooms on Airbnb and provide rides on Uber and Lyft. Likewise, online marketplaces such as Amazon and eBay have recreated the kind of artisanal cottage industry that existed in the pre-industrial age. If you have a good recipe or can make a cool product or service, you can find customers. If you create a book or song, you now have ways to self-publish and distribute. If you dream up a new specialism — ethical hacker, pet psychologist, nutrition coach? — you have a chance of finding takers. More than 600,000 people nowadays earn a living by selling on Amazon and eBay.

If new technologies reduced the total number of jobs, we would all be out of work by now. But times of technological advance have been times of job creation. Last year, as whole new waves of robotic systems were introduced, the US added 3m jobs. The unemployment rate hit a six-year low, and average hourly earnings for private sector workers rose.

Be wary of those who lament the demise of jobs for checkout clerks and meter readers, as if preserving such jobs will lead to a healthier economy. This Luddite fallacy is based on a presumption that there is only a set amount of goods and services people want. If technology permits those things to be produced more efficiently, Luddites argue, there will be less work to do. In reality, technology leads to an increase in productivity and wealth. That in turn leads to increased demand for goods and services and thus more jobs, including ones in fields we can barely imagine.

The writer is chief executive of the Aspen Institute and author of ‘The Innovators’

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