The digital economy will not power a recovery

By Andrew Jackson

November 30, 2016 – *The Globe and Mail*

Economists and pundits are at odds over medium-term prospects for the global economy. Pessimists see stagnant growth, rising inequality and growing unemployment and underemployment, widely held to be responsible for the rise of right-wing populists such as U.S. president-elect Donald Trump.

Meanwhile, techno optimists such as Erik Brynjolfsson and Andrew McAfee, the authors of *The Second Machine Age*, argue that the digital economy will drive rapid productivity growth and underpin the gradual emergence of a post-scarcity economy capable of providing prosperity for all.

The current situation is paradoxical. The rise of the robots and artificial intelligence are widely seen to be driving a new technological revolution that is disrupting entire economic sectors and eliminating many jobs, increasingly including those of skilled workers.

Information technology has long since eliminated routine manufacturing and clerical jobs. More recently, retail trade has been rapidly shifting to online platforms, financial technology (fintech) is eliminating many well paid jobs in financial services, news media are downsizing rapidly as audiences and advertisers shift to Facebook and other social media, and analysts forecast the demise of entire occupations, such as truck and taxi drivers, because of the imminent rise of autonomous vehicles.

But measured growth in labour productivity or output per hour has been dismal over most of the past decade, and especially since the global financial crisis. As economist Robert Gordon once quipped, the impact of computers on productivity can be seen everywhere except in the statistics. He argues the impact of the digital economy is over-hyped compared with the transformative general-purpose technologies of the first and second industrial revolutions.

Even the optimists increasingly concede that rapid technological progress will not create enough new jobs to replace those being eliminated. As Economist editor Ryan Avent argues in his new book, *The Wealth of Humans*, the digital economy is creating a global labour surplus that drives down wages and job security in jobs that are not vulnerable to automation.

The digital economy delivers rich rewards to investors and the financial sector in the form of high corporate profits and high incomes to senior managers and core knowledge workers with advanced qualifications in successful firms. The proverbial top 1 per cent who directly benefit from the knowledge economy are accumulating stunning wealth.

The digital economy, along with globalization, has displaced many formerly middle-class workers into lower-wage and lower-skill jobs, increasing competition for those jobs at the low end of the skills spectrum that cannot easily be automated, and thus further driving down wages. Stagnant and falling wages for the bottom 90 per cent depress overall demand and, as Mr. Avent notes, cheap labour actually reduces the pressure on many low-wage employers to invest in capital and skills.

Along with major productivity gains in the disrupted sectors, we see an offsetting shift of employment to inherently low-productivity sectors such as personal services.

Another part of the overall growth and productivity problem is that business investment at the cutting edge of the new digital economy is mainly in knowledge creation and development instead of capital goods. Dominant companies such as Google and Apple have large market capitalizations and deliver high financial returns, but their material input needs and direct economic footprint are much smaller than dominant firms of the industrial age.

High corporate profits are sustained by high returns in finance and growing new economy sectors, but weak overall business investment in the material economy is the result of low overall economic demand because of rising inequality and the stagnation of wages. Thus, the productivity gains from the new economy are being hoarded by new-economy firms or paid out to shareholders, rather than reinvested in the economy.

Economists have long believed that technological change drives growth by increasing productivity, which raises overall demand in the economy through higher wages and higher business investment. But this virtuous process seems to have broken down in the case of the new digital economy.

To the extent that this is true, new technological marvels such as self-driving cars and robots will not revive growth, and a weak economy may actually be slowing technological progress. What we need to spark a meaningful recovery is a big boost to the demand side of the economy in the form of higher wages and more public investment.

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