Recalculating GDP for the Facebook age

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The true impact of social media? Economists are approaching the question from a different angle

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How big is the impact of Facebook on our lives? That question has caused plenty of hand-wringing this year, as revelations have tumbled out about the political influence of Big Tech companies.

Economists are attempting to look at this question too — but in a different way. They have been quietly trying to calculate the impact of Facebook on gross domestic product data, ie to measure what our social-media addiction is doing to economic output.

This might seem like an obvious question for an economist to ask. After all, statisticians have long counted what companies and consumers do in these GDP numbers.

But with Facebook there is a catch. The framework for GDP, which was devised in the 20th century for an industrial economy, measures activity in terms of money. But consumers get Facebook services for "free" — or, more accurately, as I have written in this column recently, they are bartered for data, without money changing hands.

And while Facebook collects money with its advertising model, those transactions do not capture its utility value to consumers. So is there any way to measure this "free" activity and thus include it in GDP? Kevin Fox, an Australian economist, thinks there is. Working with four other economists, including Erik Brynjolfsson, a professor at MIT, he recently surveyed consumers to see what they would "pay" for Facebook in monetary terms, concluding conservatively that this was about $42 a month. Extrapolating this to the wider economy, he then calculated that the "value" of the social-media platform is equivalent to 0.11 per cent of US GDP.

That might not sound transformational. But this week Fox presented the group's findings at an IMF conference on the digital economy in Washington DC and argued that if Facebook activity had been counted as output in the GDP data, it would have raised the annual average US growth rate from 1.83 per cent to 1.91 per cent between 2003 and 2017. The

number would rise further if you included other platforms – researchers believe that “maps” and WhatsApp are particularly important – or other services.

Take photographs. Back in 2000, as the group points out, about 80 billion photos were taken each year at a cost of 50 cents a picture in camera and processing fees. This was recorded in GDP. Today, 1.6 trillion photos are taken each year, mostly on smartphones, for “free”, and excluded from that GDP data. What would happen if that was measured too, along with other types of digital services?

The bad news is that there is no consensus among economists on this point, and the debate is still at a very early stage. Some think it is ridiculously subjective to measure anything by conducting consumer surveys. Other attendees at the IMF event argued that it was not necessary to worry about the non-monetary aspects of our economy, since these have always been present in some form. Even in the 20th century, GDP data excluded other “free” activities such as, say, the output of housework.

But even if this debate is controversial, I welcome the fact that it is now getting under way, not just at the IMF but in bodies such as the OECD as well. (Full disclosure: I was one of the speakers at the IMF conference.) Better still, there are a host of new ideas around how economists might respond. The Fox and Brynjolfsson team suggested replacing our GDP measures with something called “GDP-B”, which would factor in the “free” impact of digital services.

A separate paper from Charles Hulten and Leonard Nakamura, economists at the University of Maryland and Philadelphia Fed respectively, explained another idea: a measurement known as “EGDP” or “Expanded GDP”, which incorporates “welfare” contributions from digital services. “The changes wrought by the digital revolution require changes to official statistics,” they said.

Yet another paper from Nakamura, co-written with Diane Coyle of Cambridge University, argued that we should also reconfigure the data to measure how we “spend” our time, rather than “just” how we spend our money. “To recapture welfare in the age of digitalisation, we need shadow prices, particularly of time,” they said.

Meanwhile, US government number-crunchers have been trying to measure the value of “free” open-source software, such as R, Python, Julia and Java Script, concluding that if captured in statistics these would be worth about $3bn a year. Another team of government statisticians has been trying to value the data held by companies – this estimates, using one method, that Amazon’s data is currently worth $125bn, with a 35 per cent annual growth rate, while Google’s is worth $48bn, growing at 22 per cent each year.

It is unlikely that these numbers – and methodologies – will become mainstream any time soon. Not least because it would be very costly to revamp our economic statistics. But next time you see a headline quoting GDP data, ask yourself what might be missing from those market-moving statistics. Or take a look at your smartphone and ponder whether your life would be “poorer” without it.