

Digital technologies – A distinct part in transformation to a planet-friendly economy



Technology plays an important role in achieving long-term sustainable economic growth and a planet-friendly economy. **Bruno Sivanandan**, chairman of the European Chamber of Commerce in Vietnam's Digital Sector Committee, writes about the importance of digital technology in bringing civilization to the next level.

Shifting our economy to a sustainable state is the main objective of the 21st century, digital technology can play a part in the programme taking place at the scale of our civilisation.

To ideate any transformative agenda, one should commit to understanding the patterns underlying the transformation of our civilisation. Indeed, as identified by William Stanley Jevons, a British economist of the 19th century, every technological breakthrough bears salvation and the seed of future problems at the same time.

In more practical terms, if digital technologies enable us to transfer information across the globe at an infinitesimal cost, it also leads us to a dramatic increase in the information we transfer. Let us take a concrete example: the cost of sending a mail. A few decades ago, sending a letter to each home, an advertisement for example, would require printing thousands of leaflets and hiring a fleet of couriers to slip those into countless mailboxes. This is obviously more costly than email campaigns.

However, we all experience the swarming of our digital mailboxes with commercial emails to the point that the energy wasted on unsolicited advertising email is now far greater than that of courier fleets in the past. This illustrates Sir Jevons' paradox, which, when considering the economy, demonstrates why we ended up reaching the limits of our planet's resources.

Therefore, digital technologies are involved in our fight for climate change in

different ways. Firstly, our economy relies on a growing extent on those technologies. Industry, communication, logistics, and entertainment are but a few examples of areas for which we dedicate more and more computerised resources. The result is that the portion of greenhouse gas emissions digital technologies are accountable for is becoming very significant.

In this context, it is crucial that we endeavour to serve the users of digital services, whether it is an individual watching Netflix or a robot trading at a high frequency, with efficiency in mind. In other words, we need data centres to yield more computing power, for less electricity. The answer will come through hardware based on technological breakthroughs, relocalisation of data centres to cold areas, and reusing the heat for other purposes. And we need to do so while harnessing the unbridled proliferation of new services that, as a society, we would consider non-essential. This would, so to say, ease off Jevons' paradox.

E-SIGNATURE AND E-INVOICE: TWO REAL-LIFE EXAMPLES

One small but concrete example of the usage of digital technology to reduce our carbon footprint is paperless administration through e-signature and e-invoice. On top of this efficient infrastructure that we, in our daily life, call "cloud computing", entrepreneurs, companies, and governments can gather their forces to reduce the energy and the cost associated with physically

transporting administrative documents from one place to another.

This is done nowadays at great cost and with mediocre operational efficiency. The benefits of digitalisation for those use cases are tremendous. Not only is the transfer of information virtually costless, the security is inarguably higher, fraud much rarer, and auditability more practical. For those reasons, the European Chamber of Commerce in Vietnam's Digital Sector Committee has been advocating the adoption of those practices for several years now. It is interesting to note that the technology being available does not mean it will be implemented, and for e-invoice and e-signature to be adopted by Vietnam, the government needs to issue an adequate legal framework, while the businesses need to invest in the transformation of their systems. This single example epitomises the difficulty of adopting planet-friendly practices at a national and worldwide level.

THE GREAT OPTIMISATION

Digital technologies can play a tellable part in the transformation into a planet-friendly economy. It depends on us to limit them to sensible use cases.

Digital technologies can help us through the optimisation of existing services. Science relies historically on data to make progress, and we have never generated as much data as we do now. If we harvest this data, we can create more added value with fewer resources.

Optimisation of the supply chain, agriculture, industrial process, energy-producing compounds and their related network, among others, could reduce our pollution output to sustainable levels.

Science is accelerating exponentially, and digital technologies have enabled, along with thousands of bright minds working together, major breakthroughs that can potentially heave our civilization to the next era, where people can live in dignity while preserving our environment.



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