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Viability of adding a green price levy to reduce the environmental damage of the internet

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International Telecommunication Union reports that the global average price of a mobile-data basket of at least 1.5 gigabytes dropped by 7 percent annually between 2013 and 2019. Such plummeting internet data prices, and emerging flat-rate pricing models encourage internet usage. Statistics show that since the Dotcom crash in 2000, up until 2022, internet users have grown by 1355%, and during the COVID-19 pandemic, their usage has further increased by 40%. The rapid increase in individual internet usage negatively impacts the environment due to the increasing electricity usage of data centers. The latest calculations show that the internet emits 3.2 million metric tons of carbon dioxide (CO_2) annually.

Although policies, efficient technologies and corporate level strategies are being incorporated to reduce emissions, studies show that such steps would be ineffective with the increasing internet usage (Briscar 2017). Moreover, with decreasing per gigabyte data prices and the increasing popularity of flat-rate prices, it is unlikely to fathom that people would transform back to capped data prices, limiting their internet usage. Furthermore, our data analysis incorporating motivation, green price sensitivity and intention to reduce internet usage shows that motivation crowds out when trying to facilitate autonomous motivation to mitigate environmental damage that occurs through internet usage. As such, controlled motivation strategies such as societal pressures and rewards, and pricing have been shown to create an effect.

Analysing the current trend of existing pricing strategies, especially flat-rate pricing, do not encourage internet use reductions (ITU 2020). In solving this dilemma of the need to reduce internet usage and its inability under the current circumstances, we suggest investigating other pricing strategies that discourage use, and incorporate 'externalities' of internet usage. Thus, carbon offsetting internet data packages could be a successful solution. Our findings also show that individuals are willing to spend on eco-friendly internet despite their income levels. Hence, encouragement on such pricing is timely. Similar pricing models are available when booking flights and hotels (Wardle 2003). As such, broadening the existing internet service pricing models to include an extra fee to offset carbon could solve the existing dilemma.

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