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<https://ukerc.ac.uk/news/coronavirus-and-digital-solutions-for-climate-change/>

## **Title: Coronavirus impacts on our appetite for digital solutions to reduce climate change**

Let's start by stating the obvious - daily life is becoming increasingly digitalised. This trend has rocketed with the arrival of Covid-19. Social distancing and stay at home orders have caused many of our everyday behaviours to be replaced by their digital counterparts. Online shopping and food delivery, teleworking, virtual meetings, social media, have all witnessed a soaring [increase during the past year](#). So, what does this have to do with climate change?

With [three quarters of all carbon emissions linked to our consumption behaviours](#), digital innovations offer opportunities to reduce emissions by providing alternatives to mainstream consumption practices. Examples include 11<sup>th</sup> hour food apps which reduce food waste, and smart home technologies which allow greater control of heating and lighting.

A recent UK study by researchers at the University of East Anglia (UEA) reveals the impacts of Covid-19 on the factors influencing the uptake of 16 low carbon digital innovations across mobility, food and homes. Surveying a nationally-representative sample of over 1000 people in 2019 and then again during the pandemic in 2020, they reveal the impacts of Covid-19 on innovation adoption as well as on the underling social drivers of adoption.



### **Friend or foe for a digital low carbon future?**

Overall, coronavirus, lockdowns, and related restrictions have had mixed impacts on the use of, and prospects for, low carbon digital innovations. Shared mobility innovations offering alternatives to private car use have fared worse, with usage, opinions, and likelihood to start using in the next year all down. For example over two-thirds of ride-share users (e.g., Liftshare or Blablacar) reported a reduction in use or stopping altogether because of coronavirus. The one exception in mobility is e-bikes for which prospects are less gloomy, as 29% of users had either increased their use or started using them due to covid.

Food and home innovations offering alternatives to large retailers and inefficient consumption practices have fared better. Meal kits, food apps, and smart home technologies have seen usage increase (between 20 – 40% of users), although opinions and near-term growth potential remain largely unchanged.

### **Shrinking social circles**

Social exchange is critical for passing on information about innovations and encouraging would-be adopters to take the plunge. Here the picture is worrying. Coronavirus has dramatically shrunk our social networks. More than half of the respondents reported interacting less often and with fewer people due to covid. This negatively impacts much of what we hear and learn about innovations, and so weakens the social dynamics that normally drive adoption.

There's a caveat here. Although coronavirus negatively impacted the amount and diversity of social interactions, for a quarter of the respondents, it increased interaction with others online through social media like Facebook, WhatsApp, and Twitter.

### **On-going pandemic**

Although the pandemic has given a boost to the ever-expanding digital world, this research highlights that not all digital innovations have benefited – especially those relating to low carbon mobility. In the near-term at least this means the transition to electric vehicles has become ever more urgent, until the physical proximity of shared and public modes fades as a risk.

The study also reveals the negative impacts of lockdowns on the flow of information. As the pandemic continues across the world, strategies for the promotion of low carbon innovations need to consider the knock-on effects of our shrinking social networks. A critical question is whether online interaction is an effective substitute for other types of social interaction in the diffusion of digital consumer innovations for climate change. Watch this (digital) space.

A summary of results are provided [here](#).

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