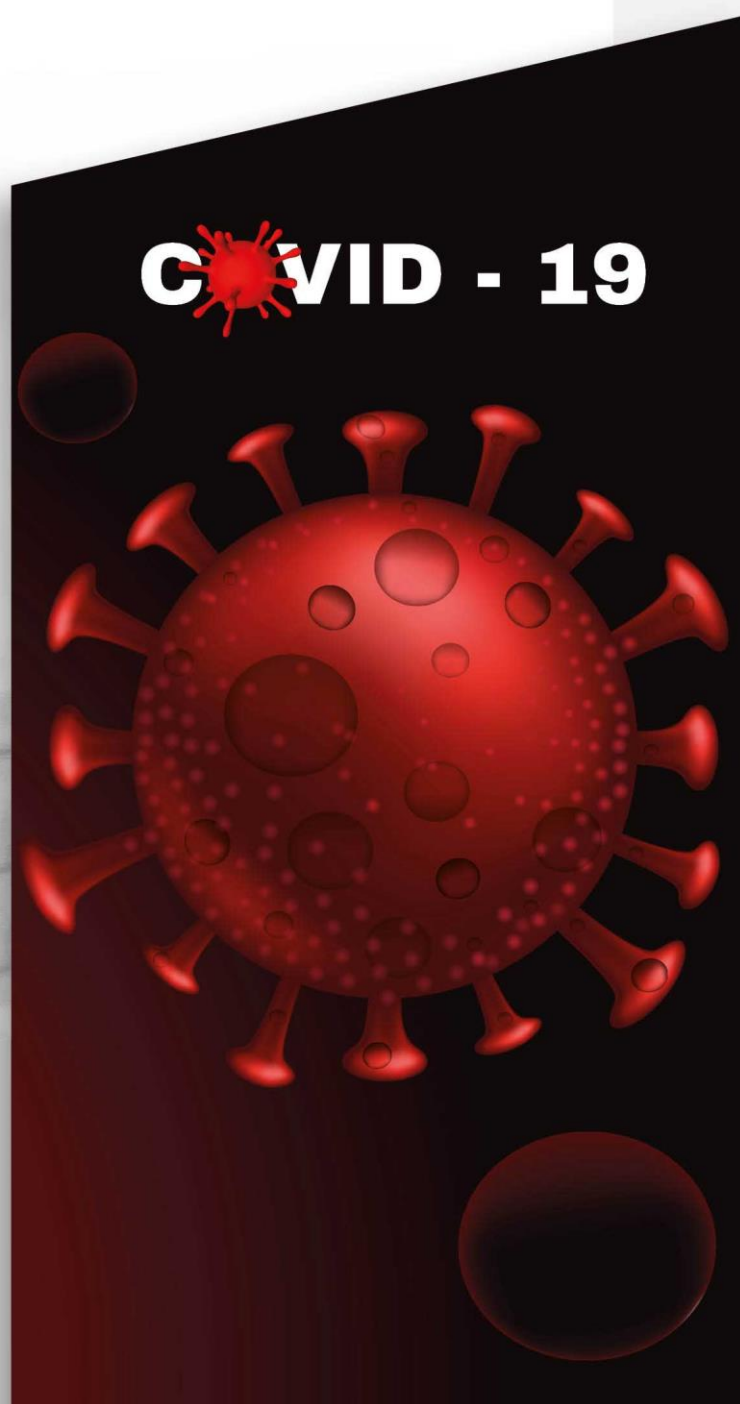


DIGITAL ECONOMY UPDATE

The COVID-19 Crisis: Accentuating the Need to Bridge Digital Divides

6 APRIL 2020



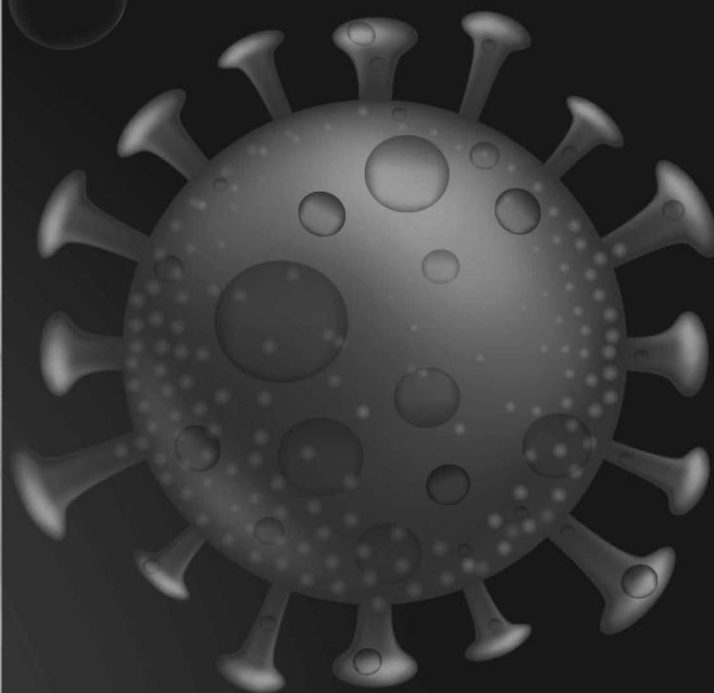
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CoronavirusVID - 19



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The COVID-19 Crisis: Accentuating the Need to Bridge Digital Divides

The spread of the latest strain of the coronavirus (COVID-19) is disrupting economic and social life in multiple ways and dimensions. This crisis is unfolding at a time characterized by rapid digitalization, which is helping in the decision-making process regarding response and adaptations to the situation by governments, businesses and consumers. However, differences in digital readiness hamper the ability of large parts of the world to take advantage of these technologies. Multilateralism is vital in a world facing critical development challenges.

Crisis outbreak in a new digital landscape

Some comparisons with the situation at the time of the 2008 financial crisis help to illustrate how fast the digital landscape has changed¹:

- While the iPhone was introduced in 2007 and the first Android versions in 2008, there are now more than 3.2 billion smartphone users.
- The number of Internet users has surged from 1.6 billion to 4.1 billion, and Internet user penetration from 23% to 54%.
- The number of Facebook users has grown from 100 million to 2.4 billion.
- The number of online shoppers has more than doubled and the value of business-to-consumer (B2C) e-commerce has surged from less than \$1 trillion to more than \$3.8 trillion.
- Global Internet Protocol traffic (a proxy for data flows) has surged from 4,000 GB per second to 100,000 GB per second.
- The combined market value of Amazon, Apple, Facebook, Google and Microsoft, which was about \$500 billion in 2008, peaked before the COVID-19 crisis erupted at more than \$7.5 trillion.

Implications of the COVID-19 crisis

The enhanced level of digitalization of many economies manifests itself in various ways in the current crisis. With governments, businesses and organizations responding by imposing travel restrictions and social distancing measures, digital solutions are increasingly explored to continue some of the economic and social activities remotely. Digitalization is allowing telemedicine, telework and online education, increased communications in the lockdown situation, enabling shopping online as well as generating more data on the expansion of the virus and helping information exchanges for research.

a) More teleworking and online conferencing

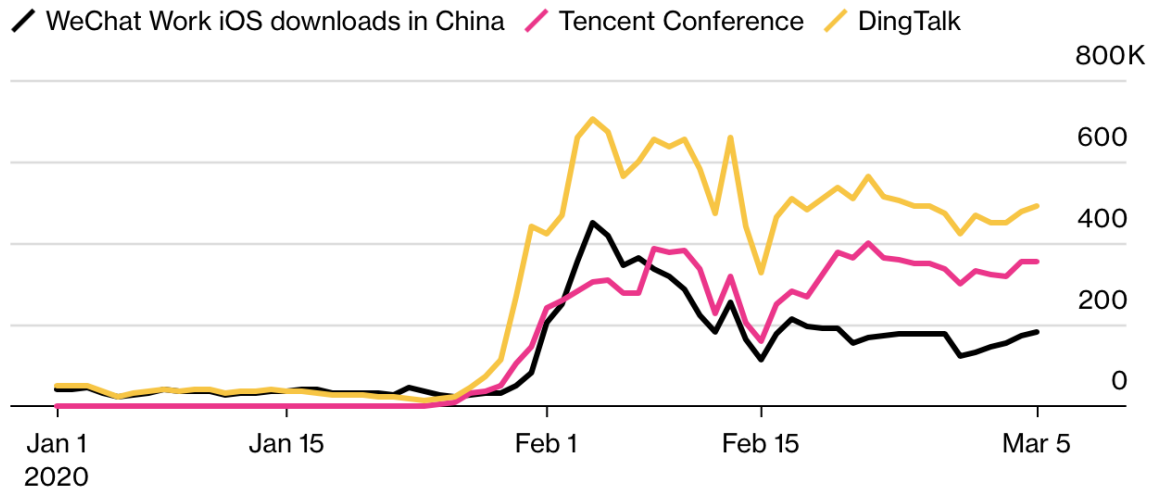
Around the world, workers – including those at UNCTAD – have been asked to work from home and replace physical meetings with online video conferencing and messaging. The demand for Microsoft Teams, Skype, Cisco's Webex and Zoom has surged. According to Microsoft, the numbers using its software for online collaboration climbed nearly 40% in a week.² In China, the use of digital work applications from WeChat, Tencent and Ding took off at the end of January when lockdown measures started to take effect (figure 1).

¹ Data are sourced from UNCTAD, ITU, Cisco, Financial Times and Facebook.

² "Big Tech Could Emerge From Coronavirus Crisis Stronger Than Ever", *New York Times*, 23 March 2020.

The power and user-friendliness of such services are today vastly higher than they were a decade ago. It is likely that their widespread use triggered by this crisis may have long-term implications as more people and organizations become used to them.

Figure 1: Use of selected remote work applications in China, 1 January – 5 March 2020, number of users.



Source: Sensor Tower

Digitalization has also allowed schools to continue with some remote education activities. As the lockdown in many countries does not allow for teaching in the schools, they can to a certain extent do it remotely. Digital tools and online trainings allow teachers to stay in contact with their students to ensure that this situation does not affect significantly their learning progress. However, the capacity of students to benefit from remote teaching may be unequal due to different home-based access to Internet connectivity, different capacities of parents to support the children, as well as various levels of preparedness of schools to dealing with this challenge.

Greater reliance on such online work applications creates an increased interest in using cloud solutions for storing and analyzing the data created, renting space from tech companies such as Amazon Web Services, Microsoft, Tencent and Alibaba.

At the same time, the combination of more teleworking and online conferencing is raising security concerns. People working from home often have fewer security defences in their home networks than they would have at their workplaces. There have been rising incidents of coronavirus phishing scams since January 2020. Moreover, in March, the Brno University Hospital in the Czech Republic—a major COVID-19 testing hub— suffered a ransomware attack that disrupted operations and caused surgery postponements.³ This points to the need to pay close attention to the possible security implications of the evolving use of digital tools.

b) Digital information sources

Social media platforms, such as Twitter, Facebook and WeChat, are increasingly used as sources of information on the crisis and as a way of staying in touch with relatives, friends and colleagues when physical meetings become restricted. In China, thousands of WeChat groups have been established among communities, companies and non-governmental organizations, bridging the gap between people in need and people who can help.⁴

On the downside, while social networks are very useful for information exchange, they are also the source of misinformation in the form of “fake news”. It is important that digital

³ “Coronavirus Sets the Stage for Hacking Mayhem”, *Wired*, 19 March 2020.

⁴ “Head in the Cloud”, *Beijing Review*, 20 February 2020.

platforms step up to avoid that what WHO has qualified as “infodemic” adds to this crisis.⁵

c) **Looking for a cure**

In China, digital platforms have also stepped in to support the development of new cures. Alibaba Cloud announced that it would make its Artificial Intelligence computing capabilities available for free to help scientific research into new medicines and vaccines for the virus. Baidu has made its computing and software resources available to gene testing organizations and scientific research institutions all over the world. And Tencent Cloud has given a research team at Sun Yat-sen University in Guangzhou, Guangdong Province in south China, free access to its cloud server and provided computing power and object storage capacity for a research team at Tsinghua University to help them conduct offline computing tasks for gene measurement.⁶

Similar efforts have been made in the United States, where the White House has partnered with digital platforms such as IBM, Google, Amazon and Microsoft to unleash the power of American high-performance computing systems to allow researchers to run very large numbers of calculations in epidemiology, bioinformatics, and molecular modelling.⁷

d) **Shift in consumption behaviour**

Another response by stakeholders has been a shift, where possible, to electronic commerce over physical retail and service provision. In the United States certain items have witnessed strong growth, including food orders, pet food, toilet paper and some kinds of medicine. According to data from e-commerce ad technology provider Pacvue, there are surges in Amazon searches for products like hand sanitizer and antibacterial soap.⁸ Chinese online retailer, JD.com, reported that its online grocery sales grew 215% year-over-year to 15,000 tons during a 10-day period between late January and early February.⁹

While most industries have seen a dramatic decline in activity, with measures to downsize the workforce as a result, some e-commerce companies have had to hire more people to cope with a surge in demand. In the United States, Amazon has reportedly been hiring an additional 100,000 warehouse workers to meet surging demand.¹⁰

Another area that has seen a spike in demand is movie streaming, putting pressure on the broadband networks of cities and countries. As cinemas and theatres close under government orders in several countries, Netflix, HBO, YouTube and other streaming services are gaining a new audience. School closures may have added to growing demand in this domain, as children and youth spend more time at home.

e) **Not all digital platforms are benefiting**

Some other digital platforms have been very negatively affected by the crisis, especially

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