The Future for Science, Technology and Innovation after COVID-19

By: Rapid Access International, Inc.

June 2021

In April 2021, the OECD published a Science, Technology and Innovation (STI) policy paper entitled *What future for science, technology and innovation after COVID-19?*[1] The paper discusses the possibility of lasting changes for STI due to national and global management of the pandemic, including impacts on the purpose, design and execution of STI policies.

To be sure, research reports and articles abound on the accelerated adoption of digital technologies, big data analytics and AI tools during the COVID-19 crisis. One such report from CB Insights focuses on a legacy of technology adoption that places 24 industries and technologies that they have identified in a position to shape the post-virus world.[2]:

Healthcare: Using data, wearables, and VR to make care more accessible
*including **1)** Telehealth technology; **2)** Continuous & remote diagnostics; **3)** Teletherapy; **4)** Virtual fitness & gyms; and **5)** Senior care & aging in place*

Work: Sudden surge in remote work accelerates digital infrastructure adoption
*including **6)** Telecommuting tech; and **7)** Enterprise virtual reality*

Education: Technology and online content make the classroom optional
*including **8)** Remote learning technology; and **9)** Online courses & content*

Manufacturing: 3D and automation technology boost industry's agility and flexibility
*including **10)** 3D printing; and **11)** Industrial automation & robotics*

Retail: Shopping goes even more online as grocery joins the e-commerce revolution
*including **12)** Online grocery; and **13)** Enhanced e-commerce*

Customer service: Customer experience goes virtual with conversational AI
*including **14)** Conversational AI/chatbots; and **15)** Cloud call centers*

Finance: Demand for contactless options accelerates digital adoption
*including **16)** Contactless payments; **17)** Branchless banking; and **18)** Parametric insurance*

Security: Higher internet usage and data generation lead to increased investment
*including **19)** Personal surveillance technology; and **20)** Distributed cybersecurity*

Entertainment: "Real world" goes online with virtual reality and virtual events
*including **21)** Social online gaming; and **22)** Virtual events*

---

[1] Paunov, C. and S. Planes-Satorra (2021), "What future for science, technology and innovation after COVID-19?", OECD Science, Technology and Industry Policy Papers, No. 107, OECD Publishing, Paris. Available at: https://doi.org/10.1787/de9eb127-en. Accessed on July 1, 2021.

[2] "24 Industries & Technologies That Will Shape The Post-Virus World". January 27, 2021. CB Insights. Available at: https://www.cbinsights.com/research/report/industries-tech-shaping-world-post-covid/. Accessed on July 1, 2021.

Food services: Social distancing propels take-outs and deliveries to success
*including **23)** Restaurant & grocery delivery; and **24)** Cloud kitchens*

A number of these industries and technologies have already been a focus in past monthly reports. Others may warrant a closer look in the future. But now, in consideration of the OECD's recent STI policy paper, perhaps it is appropriate to think beyond what STI trends were accelerated by the pandemic. This policy paper importantly considers the implications of a prolonged crisis on STI ecosystems:

> *Longer duration may result in new ways of operating (e.g. more flexible work arrangements, intensive use of digital tools, increased automation) becoming more embedded and efficient. However, a longer period of economic shock would reduce the financial means for businesses to transform STI processes and for government to support STI. Under this scenario, the risks of widening gaps in terms of innovation performance across and within countries, as well as across firms and research institutions, become central policy concerns. Some firms, entrepreneurs and researchers may be permanently excluded from participating in STI.*[3]

The paper looks at challenges related to future STI spending. Business R&D spending is likely to be unequal across sectors, with the higher demand for new solutions that address the pandemic affecting the evolution of this spending. And, while public funding of STI is likely to favor STI that addresses the pandemic, high levels of public debt – magnified by the pandemic – is very likely to mean cuts in funding for universities and research institutions, with lasting effects if they cause a brain drain of researchers from countries most affected by funding cuts.

Many stock markets are at all-time highs. Corporate profits are soaring. Productivity and demand for goods and services are enhanced by an acceleration in STI. But the apparent impacts of the pandemic on STI systems should be informing the corporate and public policy actions of today if we are to optimize the STI policies of a post-pandemic world.

[3] Paunov, C. and S. Planes-Satorra, op. cit.