

## Addendum: Coronavirus (COVID-19)

Following completion of our fieldwork and the drafting of this report, the full impact of the coronavirus (COVID-19) has become apparent. The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020, and a global pandemic on March 11 2020. At the timing of writing this addendum both the likely duration of the pandemic and its long-term implications remain unclear, but it will inevitably have a far-reaching and longstanding impact across virtually all aspects of society and the global economy. We have provided some preliminary observations below to update our work, where appropriate, and aid the Research4Life partnership in assessing its response to these developments.

### Global impact

It is already apparent that the pandemic will have fundamental implications for the role of governments and state actors, and their willingness to intervene in both citizens' lives and commercial markets. The more draconian, rapid and (seemingly) effective response to the virus adopted by Asian countries such as China, Japan and South Korea has raised fresh challenges for Western liberal democratic models of government. Meanwhile, the increased attention now being paid to the views of scientific and medical advisors is to be welcomed, and may see the tide of populism finally recede. However, the longer-term ramifications for geopolitics, academic and media freedom, and civil liberties, are impossible to call.

The fiscal and monetary stimulus announced by the world's major economies over the past month is 'a global policy event without precedent in peacetime'. There are growing fears that developing countries in South Asia and sub-Saharan Africa will bear the brunt of a coronavirus-induced recession, with a significant knock-on effect on international student flows to Western universities. In turn this will place many Western educational institutions under unprecedented financial pressure, with adverse implications for library budgets and expenditure on scholarly resources. Going forward, both companies and individuals are likely to face an increased taxation burden with costs, and therefore prices, liable to rise in many industries.

The critical importance of internet and mobile connectivity for almost all parts of the world has been amply illustrated in recent weeks, and the use of AI and big data technologies to map the virus's spread and impact will increase their rate of adoption in both the public sector and many sectors of the economy. Some have speculated that the coronavirus may lead to a rehabilitation of the big technology companies in the public eye, following growing scrutiny and privacy concerns, while the rapid shift towards remote working and distance/online seems unlikely to reverse in its entirety, even when the pandemic recedes.

### Impact on research

Governments and research funders around the world have rapidly issued funding calls for research into the pandemic. Looking beyond these emergency measures, it appears all but inevitable that COVID-19 will lead to:

- strengthened demands from policymakers, funders and the general public for open access to scientific publications and data;
- increased investment by governments in scientific research, information and advice; and
- reinforcement of the links between science and policy, in response to societal needs.

These developments are consistent with the broad direction of travel outlined in our landscape report, but are now being urgently prioritised in the context of COVID-19 by international actors such as [UNESCO](#).

### **Impact on scholarly communication**

The WHO has compiled a [database of global research publications](#) on coronavirus diseases (COVID-19), while many publishers and vendors have already moved rapidly to provide immediate access to peer reviewed articles relevant to the pandemic, with lists of publisher resource hubs being quickly made available by [trade associations](#) and [funding bodies](#), and guidance produced by [Research4Life](#). In the medium term, an acceleration of the shift to electronic, rather than print, resources appears an almost certain by-product of the pandemic, while the future withdrawal of free access to electronic resources risks promoting a backlash against the subscription model. Popular newspapers like the [LA Times](#) and the [Guardian](#) have been quick to highlight the deficiencies of existing publishing and access models in light of coronavirus disease, while there is fierce [debate over the value of preprints](#) in such a crisis.

The pandemic has also had a significant operational impact on many publishers and service providers. In addition to the shift to remote working, publishers have [implemented changes to editorial policies](#) and [cancelled print runs](#). Trade associations report a [reduction in editorial activity and the number of titles published](#) in the countries most affected by the virus, and new product development has stalled in many cases. Mailing lists in the scholarly communications community are already raising concerns of an existential threat to mission-driven and not-for-profit publishers, amidst fears of ever greater market consolidation and loss of [bibliodiversity](#).

In the longer term, the threats to higher education institutions and the corresponding implications for library budgets, in both high-income and low-income countries, will see publishers come under increased financial pressure, even as governments and funders strengthen their demands for open access. We may see increased moves to 'offshore' production and editorial activities to lower-cost regions, and, more positively, increased innovation as old ways of working are disrupted. More concerningly for Research4Life, philanthropic donations and activity by both publishers and libraries may provide difficult to sustain in a period of increased budgetary constraints.

### **Summary**

The world has changed beyond all recognition in the weeks since our reports were written. We have outlined above some possible effects of COVID-19, but there can be no guarantees, and little certainty, as to its ultimate consequences. We believe the trends, findings and recommendations outlined in our reports remain largely valid. However, trends that were emerging slowly are now proceeding at breakneck pace, while others have shifted course or stalled. The immediate response of the Research4Life partnership to the current pandemic must be to service the resulting demand for access to high-quality, peer-reviewed academic and professional content. In time, however, attention must turn again to reviewing Research4Life's strategy and value proposition in light of what is now an even more rapidly changing external environment.

***Rob Johnson, Director, Research Consulting, 31 March 2020***