-President's Message

sincerely hope that, by the time this reaches readers, understanding of the coronavirus disease COVID-19 has improved dramatically. The science and engineering community can lead by example by making business decisions based on facts and data, and can help reduce unnecessary panic that tends to exacerbate these situations.

Meanwhile, we are watching COVID-19 developments closely and communicating with OSA members and customers around the world. We are quickly reacting with virtual solutions and options for those that either have been restricted from travel or have decided not to travel for personal reasons.

As this is being written, the virus' ultimate human toll and trajectory remain unknown. Some large international meetings have been rescheduled for later in the year or canceled altogether. The economic impact is just starting to emerge: near-term travel bans are emerging from various universities, companies and government agencies throughout the world; international financial markets have swung wildly; factories remain closed or are finding alternative sourcing; supply chains have been disrupted. As those supply chains break, the impact could be severe.

Since January, I've started each day by looking at the Johns Hopkins University coronavirus "heat map" (http://ow.ly/jYqz50yrqf1). As the virus has spread, I have felt conflicting emotions—concern about impending disaster, but also intellectual intrigue. Tens of thousands of cases have been reported in China, Europe, South



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Korea, Iran and elsewhere, where data are abundant. But the handful of cases in Africa and Latin America, and the reliability of the data from China, raise concerns. Chinese companies employ hundreds of thousands of workers from China in Africa and Latin America. Are there really so few cases in those regions? Or does the lack of reported cases reflect poor infrastructure or reporting?

The as-yet unknown variables have caused me to think about how the global availability and transparency of relevant data affect our lives and careers. In science, we are often handicapped by sparse data. How do we make decisions when the detail and accuracy of presented data are in doubt? The answer, of course, is "with lower confidence." The medical community needs timely, accurate data for an appropriate threat response. Business leaders need good data to make decisions on operations, supply chains and future prospects. Policy makers need good data to clearly communicate to the public the spread and severity of a virus, and the strategy to mitigate it—and thereby gain the public confidence needed to ensure widespread cooperation.

If there were ever a moment that the importance of broadly shared research shows its value, it is now. Researchers around the globe need to build on a foundation of knowledge that allows them to cooperatively address challenges bigger than any single country. Tsunami warning systems seem obvious—after the tsunami. Properly funding, communicating and leveraging a broad range of scientific research is vital to mitigate or prevent disaster altogether.

We all should reach out to our affected colleagues and help them return to a normal pace as the year unfolds. Whether this peaks soon or extends through the year, The Optical Society stands ready to help our affected members and institutions, and to set a standard for transparency and open access to data.

—Stephen D. Fantone, OSA President