

Correspondence

COVID-19: remote tech spares clinicians

Virtual-reality technology backed by an ultrafast 5G mobile network (VR+5G) has complemented rigorous preventive measures in cutting the infection rate of medical staff on the front line of the COVID-19 epidemic at a university hospital in Zhejiang, China. This technology enables remote diagnosis and treatment monitoring of patients, thereby helping to reduce direct contact with medical staff (see go.nature.com/35ex2pv).

This VR system allows medical personnel to interact with a digital 3D representation of the patient's environment through a computer-generated simulation in real time. Tracking data collected through such VR+5G applications could also provide valuable information for policymakers, for example on factors that influence the course, infectivity and severity of the illness.

VR+5G would also improve the monitoring and communication capability of people at home.

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Arab students thrive in Israeli university

For long-standing reasons, the Arab minority in Israel has been under-represented in Israeli universities. The Technion — Israel Institute of Technology has rectified this by developing an empowerment model that is now being extended to all other academic institutes in Israel through the Israeli Council for Higher Education.

The Technion resolved two weaknesses, without resorting to US-style affirmative action to resolve discrimination. These were the inadequacy of Arab students' secondary-school preparation for higher education, and the difficulty of adjusting to campus life in the face of cultural and age-related differences from the Jewish majority. The Technion set up coaching programmes for prospective students, workshops in core courses run by high-achieving Arabic-speaking students, personal tutoring in social engagement, and professional guidance on self-management.

Since 2004, our numbers of Arabic-speaking students and Arab female students have increased by 200% and 350%, respectively. The number of Arab students deemed 'outstanding' has risen by 1,800%, and the number of Arab graduate students by 120%. Dropout rates among our Arab students have fallen by 67%.

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Learn truths from replicability testing

More incentive is needed to spur investigation into replication issues and null results (see *Nature* **578**, 489–490; 2020). For example, experienced scientists could encourage junior researchers to allocate part of their time to verifying other researchers' results, which would also provide them with essential insights into the scientific method. To support such ventures, we are launching *ReScienceX*, a free-to-publish and free-to-read, peer-reviewed journal that will be devoted to reproduction and replication experiments.

Research students and early-career researchers should be given credit for publishing replication studies. This would have the advantage of also providing them with valuable research training in experimental design and the use of analytical tools. It is currently not easy for researchers aspiring to tenured positions to divert from generating high-impact publications, which are still the prime measure of performance (*Nature Hum. Behav.* **3**, 1001; 2019). In our view, however, they could significantly contribute to scientific endeavour by incorporating rigorous replication studies into their daily routine and embracing null results.

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Don't underrate high-flyer SOFIA

I find your assessment of the scientific worth of the Stratospheric Observatory for Infrared Astronomy (SOFIA) overly harsh (*Nature* **580**, 314; 2020). The facility provides invaluable data that would otherwise be unobtainable until well into the future.

In addition to the unique features you mention, SOFIA is the only observatory open to the community that operates in the infrared, from 28 to 300 micrometres. Data from these wavelengths harbour clues about star formation from interstellar reservoirs of cold gas and dust, hinting at how our Solar System came into being. They also hold information about stellar death, the entourage of massive black holes in galactic nuclei and interstellar chemistry.

Balloon platforms can operate in this spectral region, but do not offer SOFIA's diverse observing opportunities. The observatory's instruments are much in demand, particularly the far-infrared camera and polarimeter, and the GREAT heterodyne spectrometer. These generate 40 or so papers annually from this still-young facility.

There are plans to launch satellite observatories that could replace SOFIA — including a joint Japanese–European project called the Space Infrared Telescope for Cosmology and Astrophysics, or SPICA, and the US Origins Space Telescope. However, the cost of these would far exceed the cost of continuing to maintain SOFIA. Furthermore, neither of these observatories could be launched until well into the 2030s.

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