

Stepping into Tomorrow

Editorial

Browsing through the morning news, probably online, you may well read about the latest progress to putting humans back on the Moon or how you can sign up for a tourist flight into (or close to) Earth orbit. Alternatively, you could read about the latest efforts to combat the pandemic and the advantages of mRNA vaccines. Of course, the continuing debate over efforts to curb climate change and the rising temperatures of the planet may be of more immediate concern to you. My point is simple: understanding and appreciating the science relating to the aforementioned topics are an important part of our daily lives.

It goes without saying that, from an historical perspective, we live in the most technologically advanced society to date. That technology is driven by the underlying scientific research that enables researchers to probe the very small and the very large structures in our universe and propose theories to better simulate and represent what we observe. This in turn allows the development of technologies that improve our daily lives. Whether it be the increase in the human lifespan that arises from biological research, the ability to provide clean drinking water on demand in a remote environment, or locating a missing person via GPS (Global Positioning System), science is irreversibly integrated into humanity's activities.

It is incumbent upon all of us to be scientifically literate. This does not mean we all need to become scientists. People can enjoy music without being able to play a musical instrument. People can read books without ever having become an author. I would suggest that having enough of an understanding of the scientific method to appreciate what a scientist may be proposing is an essential goal for everyone. Politicians in particular must have a clear appreciation of what is best in a given situation, based upon the scientific evidence available to them. There are no “fake facts.” Evidence collected in an unbiased manner—subjected to peer review and debated by the scientific community to produce a rigorous result—should not be conveniently ignored because it does not conform to a political agenda. We, as the electorate, must hold our politicians accountable for their decisions and that is best achieved by ensuring our own scientific literacy.

As you read through the pages of this journal, you will find many young scientists honing their skills. From biology to psychology, many of the sciences are on display,

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as is the scientific method, the way science progresses. These authors have engaged in original research or literature searches, answering a question or evaluating the evidence amassed by others. They have their results on display, prepared to be argued with, told their methodologies are flawed or incomplete. The peer review process is at the heart of the scientific process and it is essential for the accuracy of scientific results. To be a scientist is not for the faint of heart. Your results could be found wanting or your interpretation of the evidence incorrect. It is part of the job though to be told to go back to the drawing board. However, this provides the reassurance to society that, when science stakes a claim to a result, it is not just one person's view but rather the consensus of many who have analyzed, probed, iterated, rejected, and finally concluded that a given result is accurate and a verifiable interpretation of an observation.

As citizens of the future, read and enjoy these contents and know that you are doing your part to become more scientifically literate and thus engaged in humanity's tomorrow.

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