
Editors' Note

In a 1675 letter to biologist Robert Hooke, Isaac Newton admitted, “If I have seen further [than certain other men] it is by standing upon the shoulders of giants.” The eminent physicist was referring to his reliance on prior work by Galileo Galilei and Johannes Kepler in conceiving his own body of work in the physical and astronomical sciences. Such a humble confession from so brilliant a mind underscores the cumulative nature of scientific advances and the importance of older ideas in forging newer ones.

That scientific progress builds upon pre-existing knowledge is no less true today than it was in the seventeenth century. Given the greater possibilities for communication, collaboration and information exchange in the age of the Internet, it is easier than ever to build, adapt, and invent from the wealth of information already available. The last twenty years have seen a revolution not only in our basic understanding of such

diverse fields as medicine, computer science, physics and engineering, but in the very approaches we use to study these fields.

In this, our 20th anniversary issue of the *Harvard Science Review*, we encourage you to explore the myriad changes taking place not only in *what* we know, but also in *how* we come to know it. From revolutionary techniques that probe extrasolar systems, to new molecular approaches in forensic science, to the use of microfluidics – an exciting new high throughput innovation that effectively replicates a “lab on a chip” – advances in scientific technology have allowed us to seek better, more informed answers to some of the most interesting and vital questions of our time. Nevertheless, the true importance of these innovations may ultimately lie not merely in the light that they shed on existing problems but in their potential for opening up whole new fields of study. ■

-Divya Jayaraman and David Mu
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