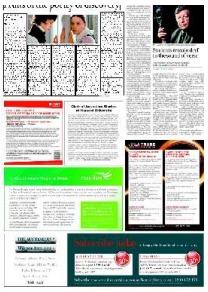
MEDIA MONITORS



Australian
07-Jul-2010
Page: 26
Higher Education
By: Michael Wests
Market: Australia
Circulation: 131246
Type: Australian National
Size: 347.65 sq.cms
Frequency: MTWTF

Fruits of the poetry of discovery

Scientists, not artists, will solve the world's big problems

MICHAEL WEST

ARTISTS are oddly insecure about science. John Keats lamented its ability to "unweave the rainbow" and Walt Whitman urged us to ignore the "learn'd astronomer" and instead just look at the stars.

Implicit in these lines is the idea that science is dry and dusty, the province of charts and equations that strip the beauty from nature, to be dissected and locked away in glass cases. Given the steady decline in science enrolments across the world, this view seems to have caught on. But nothing could be further from the truth. Science offers a rare blend of intellectual elegance, civic contribution and economic benefit.

Far more than just dreary repetition, science "needs the free play of the mind in as great a degree as any other creative art", in the words of Nobel Prize-winning physicist Max Born. It is one of humanity's greatest academic achievements and students should take the opportunity to be a part of it.

Importantly, this intellectual endeavour also leads to practical outcomes. Science takes the poetry of discovery and adds the prose of implementation. In fact, our lives depend on the fruits of research. From the fertilisers that nourish our crops to the medicines that save us from polio, smallpox and countless other afflictions, no part of the modern world is untouched by science.

But we are not out of the woods yet, with overstretched resources, a potentially hostile climate and a host of threatening diseases that still plague us. These immense challenges can be met only by the determined application of scientific knowledge. The work of artists may bring temporary happiness to the impoverished, but it cannot fill their stomachs or cure their sick children. We need more bright young people to study science so their enthusiasm can be harnessed to its tools of genuine transformational ability.

Technology is also the engine powering our economy and Australia's dwindling supply of scientists and engineers is a serious risk to our global competitiveness. Studies for the Organisation for Economic Co-operation and Development show scientific research and development accounts for about half of all gross domestic product growth and two-thirds of productivity growth. Sometimes this has led to fear, the Luddite view that inevitably science brings a bleak future of unemployment as artisans are replaced by soulless automation. But, actually, net job growth occurs as employers increase productivity with the same workforce instead of reducing staff numbers. Moreover, hi-tech industries pay the highest wages.

Even basic research, seemingly remote from business, often spawns new fields of enterprise. Quantum theory brought the transistor and the computer, while investigations of a particular tiny worm have been crucial to the development of genetic engineering. Science underpins prosperity and will continue to do so; but a reliable supply of science students is vital.

Finally, science should be studied because it prioritises a search for truth over a proliferation of opinions. Scholars in the humanities construct theories and counter-theories, generating complex ecosystems of debate that may be entirely divorced from reality and supported only by intricate arguments, not facts. Sadly, they are often little more than rickety scaffolds of ink and ideology.

Where science builds similar edifices of abstract thought, they are always anchored to the bedrock of reality by experiment. A theory that does not make testable predictions remains merely an intellectual curiosity, unable to claim any privilege over dozens of other equally valid hypotheses. Science may be complex and specific, and sometimes inaccessible to the public, but it represents our best representation of the truth about the world around us.

Despite science's clear strengths, few scientists would advocate its study to the utter exclusion of the arts. It is not a case of scientists looking down on artists in a sort of intellectual apartheid. Indeed, the plea of C. P. Snow in his famous 1959 Two Cultures speech at the University of Cambridge was for a greater connection between the arts and science communities. Educated citizens, he thought, should understand as much of thermodynamics as they do of Shakespeare. But that equality does not exist at present and, because they directly address the human condition, the arts are often seen as more relevant to our lives than science. In a world ever more dependent on technology, that emphatically is not true. There is room for both the dreaming spire and the gleaming laboratory, but in this century we will need science more than ever, and that is why we should study it.

Michael West is a University of Sydney physics honours student completing his bachelor of science-bachelor of engineering degrees. He won the university's talent opinion editorial competition, in which entrants were asked to write an essay on arts vs science.

Australian
07-Jul-2010
Page: 26
Higher Education
By: Michael Wests
Market: Australia
Circulation: 131246
Type: Australian National
Size: 347.65 sq.cms
Frequency: MTWTF

Ben Whishaw and Abbie Cornish as John Keats and his love Fanny Brawne in *Bright Star*