

DAVID ELLYARD

David Ellyard has been in and around science and technology all his working life. He has worked as a researcher, a teacher in schools and university, a science communicator through radio and television, writing and talks, and in developing Government programs and policy.

"Science and technology excite me," says David. "They always have, ever since I was a kid. And I have come to realise that nothing is more influential in shaping the way we will live in the future than our growing knowledge of the way the world around us works, and our power to use that understanding to improve the quality of our lives."

Back to the beginning. After university study in physics and mathematics, David spent a year researching cosmic rays at Mawson Base in Antarctica as a member of the 1966 ANARE (Australian National Antarctic Research Expedition).

"It was a great experience, one of the best things I ever did. Antarctica is an amazing yet vulnerable place. The work on cosmic rays sound a bit obscure but it helped me to appreciate some of the extra-terrestrial interactions that control some parts of our lives here on Earth, such as the interplay of the Sun's energy and the Earth's magnetic field. Ever since, I have been fascinated by the big questions about the place of human beings in the cosmos."

David has maintained a strong interest in Antarctic issues, and was for a number of years President of the NSW Branch of the ANARE Club.

On his return to Australia, David trained as a teacher, paying his way through teachers college by helping out in physics tutorials and practical classes. He then taught high school science and mathematics for three years.

"I was a jack-of-all-trades in the schools I worked in," David recalls. "I taught science and mathematics, did the timetabling, arranged interschool visits, acted as sports-master, coached the debating teams, and produced the school musicals. I guess it was there that I learnt that communicating science was fun, both for me and for them, and that, with a little help, people can enjoy discovering the relevance of science and technology to their everyday lives."

Educational issues are still of great interest, and David maintains some provocative views on the role and nature of science and technology education.

"I am a great believer in making science relevant, of putting it in a context. Kids may be able to list the periodic table of the elements or carry out complex physics calculations. But they may not know why there is phosphate in their washing powder or why some batteries last longer than others or how to find the way south on a starry night. That I think is a pity."

"They may know that an acid on a carbonate makes carbon dioxide, a salt and water. That's what the textbooks say. But can they link that to the way fire extinguishers work, or the way limestone caves are formed, or the way acid rain attacks a sandstone building, or the way we settle an upset stomach. Those are all the same reaction."

From 1972 to 1988 David moved his science communication skills to a wider audience, worked full time in the electronic media, both ABC and commercial, researching, producing and presenting radio and TV programs on the social and economic impacts of science and technology. His topics ranged from UFOs to Albert Einstein, from the physics of music to the glories of the night sky.

David looks back on that period with some pride.

"I think we broke some new ground at that time in science broadcasting. For example I pioneered the introduction of science and technology material to "popular radio". These included "talk-back" sessions in which I answered listeners' questions about what puzzled or fascinated them I like to think I was never once really stumped for an answer"

"I also helped get TV science shows like *Towards 2000* and *Quantum* going, working both on and off camera as researcher, writer and presenter."

Building on his fascination with astronomy, David devised, produced and presented *Skywatch*, a magazine program dealing with astronomy and space science. He made a number TV documentaries and specials, including coverage of the 1986 deep space encounter of the Giotto probe with Halley's Comet and the 1987 Voyager fly-by of Uranus. Other TV projects included a 50th anniversary history of the Sydney Harbour Bridge, and a *Century of Science at the University of Sydney*.

During this period he made the first of his now well-known appearances as a TV weatherman, first on Channel 10 and later on the ABC. He wrote the first of a number of books, beginning with a well regarded biography of the leading Australian scientist Sir Mark Oliphant, and, later, books on astronomy, weather and modern developments in science and technology. His tenth book was published in 1999. He also did a lot of communications work for science-based organisations.

15 years of media experience have left their mark. David is a powerful communicator, with both the written and the spoken word. He possesses a very broad and deep understanding of science and technology and the way they are shaping both the present and the future. He is well able to analyse current trends in terms of "possible", "probable" and "desirable" futures, and help individuals and organisations gain the maximum benefit from change...

In 1988, David moved into government service, while still maintaining some of his other activities. For more than a decade he ran programs to promote

better use of science and technology by business in NSW. He was also closely associated with bodies advising the NSW government on the role of science and technology in building employment, investment and exports.

In recent years David has come to focus on the challenge of *innovation*, that is, seeking *to capture the value that can come from new ideas*.

“Increasingly, we are realising that the opposite of innovation is *stagnation*, especially nowadays when the pace of change is so great. That applies to any organisation, large or small, private sector or public sector. Unless you are always on the lookout for newer and better ways to do things...and that is what “innovation” means..... you will be overtaken by others, and constantly fall short of what you might have achieved. In the longer term your firm will not even survive

“But you must also realise that innovation is a process that must be managed and controlled, and that depends on having the right mix of skills. Success...though innovation or in any other way... rarely just happens. It must be worked at, perhaps over a long time. But the rewards from seeking to be innovative can be very great.”

April 2004