

Journal and Proceedings

of the

Royal Society of New South Wales

2015

Volume 148 Part 2

Numbers 457 and 458

"... for the encouragement of studies and investigations in Science Art Literature and Philosophy ..."

THE ROYAL SOCIETY OF NEW SOUTH WALES

OFFICE BEARERS FOR 2015	
Patron	His Excellency General The Honourable David Hurley AC DSC (Ret'd) Governor of New South Wales
President	Dr Donald Hector BE(Chem) PhD (Syd) FIChemE FIEAust FAICD FRSN
Vice Presidents	Mr John Hardie BSc (Syd), FGS, MACE FRSN
	Em. Prof. David Brynn Hibbert BSc PhD (Lond) CChem FRSC FRACI FRSN
	Ms Judith Wheeldon AM, BS (Wis) MEd (Syd) FACE FRSN
Hon. Secretary (Ed.)	Prof. Michael Burton BA MMaths (Cantab) PhD (Edin) FASA FAIP FRSN
Hon. Secretary (Gen.)	Dr Herma Buttner
Hon. Treasurer	Richard Wilmott
Hon. Librarian	Dr Ragbir Bhathal PhD FSAAS
Councillors	Dr Erik W. Aslaksen MSc (ETH) PhD FRSN
	Prof. Richard Banati MD PhD FRSN
	Dr Desmond Griffin AM FRSN
	Em. Prof. Heinrich Hora DipPhys Dr.rer.nat DSc FAIP FInstP CPhys FRSN
	Prof. James Kehoe FRSN
	Em. Prof Roy MacLeod AB (Harv) PhD, LittD (Cantab) FSA FAHA FASSA FRHistS FRSN
	Prof. Bruce Milthorpe FRSN
	Dr Frederick Osman BSc (Hons) PhD (UWS) Grad Dip Ed FACE MAIP MRSN
	Prof. Ian Sloan AO PhD FAA FRSN
	Hon. Prof. Ian Wilkinson FRSN
Southern Highlands Branch Representative	Mr Hubert Regtop

Executive Office The Association Specialists

EDITORIAL BOARD

Prof. Michael Burton BA MA MMaths (Cantab) PhD (Edinb) FASA FAIP FRSN – Hon. Editor Dr Donald Hector BE(Chem) PhD (Syd) FIChemE FIEAust FAICD Em. Prof. David Brynn Hibbert BSc PhD (Lond) CChem FRSC FRACI FRSN Dr Michael Lake BSc (Syd) PhD (Syd) Dr Nick Lomb BSc (Syd) PhD (Syd) FASA FRSA

Website: http://www.royalsoc.org.au

The Society traces its origin to the *Philosophical Society of Australasia* founded in Sydney in 1821. The Society exists for "the encouragement of studies and investigations in Science Art Literature and Philosophy": publishing results of scientific investigations in its Journal and Proceedings; conducting monthly meetings; awarding prizes and medals; and by liaising with other learned societies within Australia and internationally. Membership is open to any person whose application is acceptable to the Society. Subscriptions for the Journal are also accepted. The Society welcomes, from members and non-members, manuscripts of research and review articles in all branches of science, art, literature and philosophy for publication in the Journal and Proceedings.

Editorial

In September this year the Society, in conjunction with the national four Academies, sponsored а Forum at Government House in Sydney on the challenging topic of the future of work. Coincidentally, the event occurred on the same day that Australia's governing Liberal Party decided to change its leader and hence the Prime Minister. This was certainly a propitious occasion to be discussing and debating a topic that is central to our very existence as a society and as a civilisation! This issue of the RSNSW's Journal is largely devoted to papers written as a result of these deliberations, some from the speakers at the Forum and others from the audience.

Hosted by the 38th Governor of NSW, His Excellency, General The Honourable David Hurley, and with speakers including the Presidents of the Academy of Science and the Academy of Technological Sciences and Engineering (and future Chief Scientist), the roll call for the Forum makes for impressive reading.

Central to the discussion was the expectation that within a decade or two the effects of automation will have transformed the working environment. This is not simply the automation of manual jobs brought about by mechanisation, it is the impact of computerization on activities once thought to be solely the domain of thinking humans - people capable of making complex decisions based on the circumstances they confront.

Undoubtedly new opportunities would arise, though likely in arenas that are quite

unanticipated. For instance, how many of us envisaged a decade ago the effect that then emerging Smartphone apps would have on the service industry, such as the accommodation and transportation sectors?!

Whatever does occur in relation to jobs in the future, those trained with skills in science and technology would appear best placed to succeed. However, the society we live in could be a very different place as a result, and not necessarily a better one. Or, at least, not if we don't take steps now to try and identify the changes that may occur and enact policies to ensure that they are not detrimental to our future well-being.

This was just one part of the debate that the Forum facilitated, some of which is taken further in the pages ahead. We hope you find it stimulating, even if not necessarily comforting.

However, to start this issue we have a very different article, written by the 37th Governor of NSW, Dame Marie Bashir, following the address she gave to the Society at its annual dinner. The subject is the life and legacy of the 5th Governor, Lachlan Macquarie, the person who did more than any other to turn Australia from being just a penal colony into a vibrant nation. A nation that is able to contemplate the grand challenges that lie ahead and to consider what its future actions should be in order to meet them and to advance its society.

Michael Burton Hon. Secretary (Editorial) 31 December, 2015

