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Innovation

The biggest recent news item for those interested in Australian science policy was the launch of the National Innovation and Science Agenda (NISA) on 7 December 2015. The keyword here is *innovation*, which the Prime Minister refers to as ushering in the ‘Ideas Boom’ [6]. There is an underlying message here for mathematics and I invite you to reflect on what this may mean for mathematical sciences in the next few years.

If you search for the word mathematics (or maths) in NISA, you will find eight results; see [7]. Seven of these show mathematics (or maths) as the last letter in the acronym STEM (Science, Technology, Engineering and Mathematics or Maths), while the eighth occurs in the description of the Australian Technology Network of Universities’ Doctoral Training Centre in Mathematics and Statistics. A search for the word statistics gives five results, two occurring in references to the Australian Bureau of Statistics, one in astronomy, one in legal notices and the final one being the same as the reference to the ATN Doctoral Training Centre mentioned above. These span a range of ideas, which show that the importance of mathematical sciences and its value for our society has been absorbed by policy makers. But in comparison to the 11 distinct search results for mathematics or statistics, a search for the word ‘innovation’ results in 92 occurrences.

While you might agree with Noel Pearson’s recent characterisation in his National Press Club speech that ‘every galah in every pet shop is talking innovation’ [8], let me suggest that the message is worth deciphering at a deeper level, because the word is being used not just to shape the way scientists do science in Australia, it is asking government and businesses to change too.

One suggested mechanism for effecting change will be the establishment of Innovation and Science Australia (ISA) [2], by July 2016. To quote the factsheet:

As one of its first tasks, ISA will review the R&D Tax Incentive to identify opportunities to improve its effectiveness and integrity, including by sharpening its focus on encouraging additional R&D spend.

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This would have a major effect on the issues and questions I asked in my previous column ‘Science Policy and the needs of Mathematical Sciences’ [3].

The premonition of change that is more than policy-speak was backed up by the range of people attending the event held to recognise the inaugural ‘Knowledge Nation 100’ on 11 December 2015 [5]. This event had a press treatment usually attributed to rock stars [5]. A keynote speech was delivered by the Prime Minister Malcolm Turnbull and then by the Minister for Industry, Innovation and Science, Christopher Pyne. Two mathematicians were included in ‘Knowledge Nation 100’, myself and Professor Kate Smith-Miles (Monash University). I came away from this event with a new understanding of what the upcoming policy changes may mean.

In the very deep and broad context of the NISA, mathematical scientists need to have a conversation about the change that is coming and what we would like to see in it. In response to NISA, the Australian Academy of Science released a position statement [1], which has very sensible and astute words about mathematics. What would you have liked to see in a response from mathematicians? Are you or members of your organisation having this conversation? Are mathematicians you know talking about it? As always, please feel free to send me your comments.

I would like to end this column by thanking Professor Ian Chubb AC for his wonderful work as Australia’s Chief Scientist. Professor Chubb was an energetic, intelligent and insightful Chief Scientist who was an agile listener to our concerns about the mathematical sciences in Australia. Professor Chubb concluded his role on 22 January 2016 and I would like to welcome Professor Alan Finkel AO, who has taken the helm as Australia’s eighth Chief Scientist. The National Committee for Mathematical Sciences looks forward to working with Professor Finkel on our many remaining challenges.

References

- [1] Australian Academy of Science, “Position statement – Science priorities for Australian innovation” 09 December 2015, <http://science.org.au/supporting-science/science-policy/position-statements/science-priorities>, accessed 30 January 2016.
- [2] Factsheet 25, Innovation and Science Australia.pdf, <http://www.innovation.gov.au/system/files/case-study/Factsheet%2025%20%20Innovation%20and%20Science%20Australia.pdf>, accessed 30 January 2016.
- [3] Nalini Joshi, Science Policy and the needs of Mathematical Sciences, *Gazette of the Australian Mathematical Society*, **42** Number 5 November 2015, 313–314.
- [4] Fran Kelly, RN Breakfast, “Fed Govt announces inaugural Knowledge Nation 100” 10 December 2015 8:16AM <http://www.abc.net.au/radionational/programs/breakfast/knowledge-leaders-iv/7016522>, accessed 30 January 2016.
- [5] “Knowledge Nation 100 puts innovation ‘rock stars’ centre,” *The Australian*, 10 December 2015 and <http://www.theaustralian.com.au/business/the-deal-magazine/melanie-perkins-ian-narev-andrew-howard-and-the-stars-of-the-new-economy/news-story/6c91898a343c6455cecb0d585adf6683>.

- [6] Launch of the National Innovation and Science Agenda <https://www.pm.gov.au/media/2015-12-07/launch-national-innovation-and-science-agenda>, accessed 30 January 2016.
- [7] National Innovation and Science Agenda, <http://www.innovation.gov.au/page/agenda>, accessed 30 January 2016.
- [8] Noel Pearson, "Radical centre can create highest compromise on recognition," *The Australian*, 28 January 2016.



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