Presidential Address 2014

The role of the New Zealand Society of Animal Production in the era of digital networks

David Pacheco

AgResearch Ltd, Grasslands Research Centre, Private Bag 11008, Palmerston North 4442, New Zealand

Presidential addresses at this Society’s conference provide good accounts on (quoting some of my predecessors) the ‘changing faces’ of the different livestock sectors, the science we do as a community and, obviously, the Society itself. A common denominator across the different themes is ‘opportunities and challenges’. Invariably, the Presidential addresses tell us a story in which we animal scientists see clear industry issues that need solving and opportunities that need to be met. Invariably, too, we find that our Presidential addresses talk on the hard reality of what appears an ever-shrinking pool of R&D investment in Aotearoa.

Past-President Paul Kenyon did a great job reviewing the society status in the address that is now part of the 2014 Conference Proceedings, so I won’t even attempt to do that. Instead, I will try to start where Paul finished his address.

If you go to page 4 of the Proceedings, you will see that Paul finished his written presentation with the statement “I wonder what changes the next 10 years will bring [for the Society]”.

I actually think that Paul’s question is a very interesting one. His question offers me a good platform from which I can launch my address. Paul mentioned some of the changes that the society has made over the years, at times in response to changes in technology. For example, the changes from overheads to Powerpoint presentations… or us being able to access proceedings in electronic versions, either in a CD or online.

While the Millennials may take technology for granted, those from the Generation X (many of our members, I can reassure you) have witnessed technological advances at a rate that is hard to comprehend. I can think, for example, when I first came to NZ (1995, my younger, hairier self) I had to be very frugal with my communication back home, because it would cost me something like 1-2 dollars per minute to call Mexico. Thinking about the possibility of doing real-time video calls was something that I considered was part of a science fiction book. Video calls? Yeah right! “You need massive computer processing to be able to do it…” or something along those lines was the thinking back then. Now, we have the all that power in our pockets, as part of our smartphones.

Social networks? Of course we had social networks: they were called the smoko room, the shared computer room and the AgHort staff vs. students soccer matches. Now, our computers, tablets and phones are teeming with apps that allow us to connect with people around the world. All at our fingertips. This whole connectivity and social networking is the one thing that has been in my head when I think about the future and our society… when I think about the question that Paul posed as part of his presidential address. However, I need to let you know that I’m not going to give you any answers or pearls of wisdom as part of this address. I am actually more interested in using this address as an opportunity to tap into your wisdom and get some answers. All I have for you is questions: how well are we connected?

Our social network

As a Society, our objectives relate to providing opportunities for active collaboration among professionals in animal science and animal production. As you can see, part of the ‘reason of being’ of our society relates in some way or another to our ability to connect… whether it is done for collaboration purposes or for mentoring of students and young graduates entering the work force.

So, how well are we connecting? In the era of social media, when you can see what your primary school classmate (yes, the one you didn’t care much about, but that now is your ‘friend’) is having for dinner, even across the world, the immediate response would be that “yes, we are very well connected!”

We have access to a multitude of social networks. From those catering to the truly social aspects of our lives (where you post pictures of your latest holidays and videos of talented felines) to those with more of a professional flavour, such as ResearchGate (www.researchgate.net) or LinkedIn (www.linkedin.com). These are the ‘social network’ equivalent where we scientists can discuss research, development and extension issues, present our latest published work and tell the world about our latest job. Thus, I imagine that the answer to my question is again “Yes, we are very well connected!”

So, going back to the objectives of our society… is the power of social networks creating a positive impact on the way we conduct ourselves to fulfil the objectives of our society? These digital social networks are very large, ubiquitous and in most cases free. So, that is all good… isn’t it? Well, it depends on whether we become the equivalent of teenagers ‘socialising’ while staring at their screens, instead of engaging in old fashioned conversations. The power and ever-present nature of digital social networks could blind us from the richer interactions that we can have face-to-face. Thus allow me to introduce you to what I think is still one of the best
social networks for Animal Production in New Zealand: the conference of the New Zealand Society of Animal Production. Why is it important to have a strong network, specially peppered with face-to-face interactions?

The NZSAP has, among its objectives, the aim of promoting collaboration among those involved in the science of animal production, to enhance cross-discipline exchanges to benefit our science, and to assist young people who are interested in animal production science. I will try to explain the relevance of having a strong social network as the core of our Society if we are going to achieve the objectives mentioned above.

I will try to exemplify at least three instances that justify stronger connections among our members. Hopefully, this will help to convince you about the value of being part of our ‘social network’.

Connecting across institutions. I ran a search in Scopus, a science-publications database, using ‘AgResearch’ (my professional affiliation) as a search term for ‘author affiliation’ encompassing the decade 2004-2014. This resulted in approximately 3200 documents, of which ~1900 were classified as “agricultural and biological science” (arguably, a major topic for our Society). Then, I did some data mining on the affiliations data and searched for the number of AgResearch papers that included co-authors from other NZ science institutions. Massey University was the single biggest institutional co-author for AgResearch, with roughly 13% of AgResearch papers published with at least one co-author from Massey. From there, the number went down for other institutions in New Zealand. After adding the six largest co-authorship affiliations for NZ institutions (Massey, Lincoln, Otago and Waikato Universities, plus Plant&Food Research and DairyNZ), that comes to one third of papers.

To be honest, I don’t have a clue if a third of co-authored papers with other institutions in NZ is good or bad. Obviously, there is likely to be variation within disciplines within the large “agricultural and biological science grouping”… but overall, my gut feeling is that the number could be greater. Indeed, at times it looks like we in AgResearch collaborate more with the USA and Australia than with partners that are on our own backyard (Figure 1).

Figure 1. A ‘word-cloud’ of author affiliations for scientific papers written by AgResearch staff during the period 2004-2014, classified as ‘agricultural and biological science’ research. Data base generated in Scopus. The size of the font represents the frequency that a term occurred in the database.

However, it is clear that the current funding environment provides strong signal for collaborations among NZ research providers. In the last year, MBIE funded the “Forages for Reduced Nitrate Leaching” a DairyNZ-led, multi-institutional programme that is the largest ever funded, at a tune of $21.2 M over six years. Similar signals have been given with the development of the 10 National Science Challenges. We need to co-operate instead of compete. Most probably, we enter into the process of “co-opetition” (Nalebuff and Branderburger, 1996), where players who would normally compete against each other for a share of the market, in this case funding, come together for mutual benefit, and for the even larger benefits for New Zealand.

A colleague from DairyNZ is emphatic in saying that the best, richest, and perhaps the only way, to get scientists across institutions comfortable talking to each other and contributing to these multi-disciplinary programmes is yes, you guessed right, to bring them together and get to know each other, not over LinkedIn, but over a cup of tea or a beer.

Connecting with our users. One of the most provoking and challenging talks that I have heard in the last year came from a presentation in the NZSAP conference. It was last year’s conference in Hamilton. Mike Barton told us the story of Taupo Beef (Barton, 2014)… and how difficult it is for a producer to stay afloat when environmental-related caps are put in place, while at the same time the cost of production increases. It is a sobering thought to hear a farmer asking “can science genuinely provide methods that allow farmers to continue to intensify in order to stay ahead of rising costs?” This is not about being asked if the report or scientific manuscript is going to be ready… this is about a fundamental question that means impact to livelihoods and our own economy. Not an easy load to have on our shoulders, I suppose… but it is good to be reminded of what is at stake. I think that connections with end users, whether inside or outside our conference will prove very useful to act as a beacon that guides the science we do.

Connecting with young members. Finally, the third example about connections is related to our young members. Every year, we have the Young Member section of our conference, and we need to admit, it is a competition. There is one winner. Talented young members of the Society come and stand in front of the audience and give their best shot to win the competition. I encourage the young members to think of the concept of ‘co-opetition’ too. Be there to share your experience with other young members and grow strong together. For the rest of us with a longer tooth, we have to remember that once upon a time we were the Young Ones… and that we looked up to others for guidance. It is now our turn to connect and mentor the new generation… the one that we will see this society flourish in the next 10 years… the one that will answer the question that Paul posed in his address.

References