Submission 78.1

Simon Fenton – Jones

Dear SCIN,

I have been following your inquiry, like so many others touching on Innovation with interest. I should apologise for my initial approach. I understand now that it was not what you were looking for. You'd would understand it's so hard to understand what different groups understand as Innovation. Rarely will you find the term described in any meaningful way.

I should explain that I tend to go back to the dictionary meaning 'to adapt'. Whether this means the adaption of the theories and practices of one science to another in order to incorporate a new hybrid or the adaption of an existing invention to a different market. Its all about how a society can, or wants to adapt to a new idea, concept or technology. As a science, Innovation can be used to explain (away) why it is that at one point in time and history a community will ignore the promise of new technology, while at other times it's promising applications will be made revolutionary. One good example is steam power, which in Greece in 800 BC was used to create a spinning toy, and in England in 1712 as pump to empty mines of water. Excuse the brief history lesson but the point which is normally overlooked i discovering pathways to Innovation is that it usually not the technology which creates it. It is a mind which can see a new application for technology or new combination of technologies. Either that, or it comes about by identifying a change in social habit and introducing a new service which offers broader utility.

Let me give you my experience of doing this as a conscious attempt at Innovation. Early in the 1970's the main form of computer model was, as you may remember. A mainframe with a bunch of dumb terminals hanging off it. Almost all computers were bought by large companies as a capital expense and who outlayed millions of dollars for big iron. Over the decades the big iron became little boxes whose intelligence could be linked in a new computing model that is described as client/server. Not only were small companies able to afford them now, but due to the speed at which they replaced and the rise of software and development costs, to treat them as a capital expense caused all sorts of problems for both the finance director (who couldn't budget easily and had 'lumps' in his cash flow) and the computer managers (who constantly had to balance their hardware, software, maintenance and upgrade paths). Smaller, often fast companies growing companies on the other hand soon discovered Moore's Law precluded them from affording the latest equipment.

Now when we were funding big iron normally the problem of money wasn't that much of problem. Sometimes a customer's financial director wanted to lease the equipment and 'wrap' in the cost of maintenance and other incidentals in order to have a flat expense over a (usually five year) period. But this lease was still on the companies balance sheet as a capital expense. The we figured out that by putting the leasing paperwork in the name of the vendor (rather than a bank) that the customer could treat it as a 'rental' on his balance sheet and make it look much better. Within three years almost every financial director of public, private and government agencies

insisted that contracts had to be done this way. The accounting regulators finally woke up and put the definition of an 'operating lease' in place as a way to prove that a customer was still liable for the monthly payments. They couldn't give the impression, as some did, that the company could walk away from the rental at any time.

The other driver for the change in the way people considered computer technology had to do with Moore's Law, which said that computer power double every 18 months (it's now more like 9) and a lease's amortization tables, which says that around half the capital on a three lease is repaid after about 18 months. So logically a renter could replace a couple of boards in a computer up to half the original cost, extend the original term for a further 18 months and their rental payment remained a straight line, which kept the financial director happy.

The point I need to make here is that when I first used to go in with salesmen (they were always men) to a customer the usual mindset, from both, was "don't be stupid, who would want to rent a computer?" Whereas these days they'll call you stupid if you suggest they buy it outright.

The point I am attempting to make by this illustration is that Innovation will happen if you understand that the way communities look at technology and aim to use it. No amount of legislation will stop it, and its almost impossible to get any legislation in place that might accelerate it, entrenched norms being what they are. This is particularly so when institutions and organisations refuse to analyse their own culture, evaluate their own methods and compare it to the changes taking place, and more pertinently, that have taken place, in the outside world. No amount of money will encourage Innovation. It's a confusing thing because it can't be systemized, it can only be encourage by an institutional culture that doesn't ignore important new ideas and concepts as most Australian parliaments do with their committees, its learning groups.

I do not mean to do a Latham here. But we have opposition leaders imploding on both sides of political parties (Brogdan in NSW). This is something that has never been seen before, either in Australian or (in my inquiries) other Western style parliaments. Frustration with the present democratic learning process is almost universal. You have only to talk to, and watch, Secretariats of committees to see their complete disillusionment with the so called democratic process in Australia.

This is not a political rant. If we wish to understand and improve pathways to Innovation we should generalize and try and understand why our (federal) institutions have come to this point, where important ideas and concepts bounce off institutional walls. We need to perceive where antiquated methods (procedures) may be modernised in order to create an environment where, should a mad scientist or frustrated bureaucrat make a suggestion, it isn't dismissed out of hand but given its due weight and a direction (to an appropriate forum).

There is one common theme that limits Innovation at present. The trouble arises by the fact that research is almost entirely conducted by peers in isolation. Look through any repository or research journal and you will find groups of people who only talk, at seminars and inquiries, to PLU's (people like us) and, in a professional frame of mind, exclude everything except the accepted theories, techniques and methods. The aim is

always to get a paper or report out.

I've made a living by diving into these silos and looking the patterns of connections between two or three them, usually with an idea for a new product or service (improvement) that requires an understanding of both. Innovation as you might expect always comes about by taking advantage of these connections before the borders firm up and a new science is invented. These opportunities are not to hard to spot as long as you concentrate on commonly asked questions and make note of where they are left hanging.

A practical example . In the case of this inquiry we can see an opportunity for improving the funding of small start ups. The commonly asked question is 'why is it that we cannot get superannuation funds to fund small start ups or get money to commercialise a nearly developed product or service? The potential answer has been given on a number of occasions. Fund managers need to have a spread of risk across small companies in oder to have a portfolio which might ensure a constant return on funds.

In practical terms the size of the potential fund will need to be small compared to a fund manager's portfolio (say 2% of funds under management) and the number of projects in the *Innovation* portfolio will need to be a mix of early to late, large and small, stage developments if it is to have any chance of ensuring a continuing return on funds. This is what we *do* know. Now a solution to this impass will require an amount of work by people who run government initiatives. They must look to aggregate a portfoliio which might satisfy a fund manager who might attract a new breed of investor that might view this small portion of their portfolio as something they do for the common good (or as an extension their gambling habit).

The question then has to be asked, is this inquiry's aim to produce a report (which is likely to be ignored) or is its aim to keep asking hard questions of groups of specialists who would not usually get together because they're locked into their usual daily routines. I guess the answer will depend on how hard they want to chase a pathway to Innovation.

If I can be of help, please don't hesitate to call,

regards,
simonfj
20/09/05