

AHRC Arts, Humanities and Innovation Seminar, 24th November 2008

Keynote speech:

How are the contributions of the arts and humanities faring in the evolution of national innovation systems?

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The humanities, arts and social sciences have tended to live in a parallel universe to that of innovation policy thinking and processes. I won't bore you with rehearsing the reasons for this state of affairs – I am sure that is well established. But it does have its humorous-ridiculous side.

On the occasion of a large commercialisation convention a few years back, the chair warmed up the audience by asking: how many scientists there were in the audience. Lots put up their hands. Then he asked how many lawyers and managers and accountants there were in the audience. Quite a few put up their hands. And finally asked how many arts people there were. Me and a few others put up our hands. And he said: It's good to see all the scientists here – they tell us *why* things work the way they do. The accountant and the lawyers, they tell us *how* things work. And the arts people say: do you want fries with that?

But it is my view that the innovation framework gives the arts and humanities the best overarching opportunity to reframe and refresh the arguments and evidence for the role and value of our disciplines since the declaration, by CP Snow in the 1950s, that we are living within bifurcated dual cultures.

First, let me defend – against those colleagues. Usually in the arts and humanities, who accuse innovation thinking of being yet another manifestation of the dreaded 'neo-liberalism'.

Innovation systems approaches are a relatively recent public policy framework, which have really only been in place for a couple of decades and that means that they are still in a state of real contestability. They are contestable precisely because they undercut the logic of neo-liberal rationales for small government, for deregulation and for getting out of the way and letting markets work.

Innovation policy has been made in a context in which western governments have re-introduced themselves to an active interventionary role in a number of areas where they spent a couple of decades getting out of in the 1970s and 80s, in the

post stagflation era and the end of the Keynesian settlement. The innovation policy framework is a value-driven orientation to productivity rather than a cost-efficiency driver for intervention and in that sense it is in contrast to micro-economic rationales for change and reform - which were the mantra of western governments' strategy into the late 1980s and early 1990s. It is also contestable because for Treasury officials it's regarded as industry policy by another name and therefore highly suspect.

But I think that it does represent a historic shift in the ways in which government has thought of an appropriate role for intervention. This has led to a disposition to focus on emerging industries that exhibit innovation and R&D intensity, upskilling and education of the population, and a focus on universalising the benefits of connectivity through mass ICT literacy upgrades. Governments' role in innovation systems are to map and help coordinate the system, facilitate linkages where they are inadequate or bring them in to existence where they don't exist, On innovation, they must attend to evidence of *system* failure, not *market* failure.

Having said that, we are still left with the parallel universe problem. But I think three factors are causing some convergence between the parallel universes.

First, social scientists, working closely with engineering and technology specialists, have generated a great deal of evidence for the interdependence of knowledge production, knowledge management and knowledge transfer, giving rise to claims in the literature for fifth generation or ecological approaches to innovation systems. This research and scholarship has demonstrated the necessary interdependence of STEM and HASS. Recently, the Oslo manual has been updated to take account of what is now approaching mainstream thinking. Science itself now seeks out particularly the social scientist in a more holistic cross-disciplinary handshake and there is a certain reciprocation.

Second, innovation thinking and policy has been mugged by reality, and that reality is the industry reality that advanced economies are overwhelmingly services-based and thus there is a need to provide a framework for services innovation in policy. Most services sector innovation is not dependent in breakthrough science but on incremental and local efficiencies, attention to process, and, increasingly, to R&D and business models which take greater account of the demand side and of innovations generated by users or consumers.

Thirdly, the thoroughgoing internationalisation of innovation policy – its take up, not only in the OECD but much wider, has meant the emergence of different approaches that have broken out of the path dependency of Frascati and the Oslo frameworks. Some of the most dramatic examples of that relate to countries such as Brazil and their approach to western patented medicines.

So where are we now? I think the social sciences have come into their own as a result of the converging path of the parallel universes. The intellectual leadership and scholarly heavy lifting that has got us to where we are now has been largely in the province of the social sciences particularly in business, economics, geography, economic history etc. But it is also those spheres of economic activity in society –most particularly the knowledge-intensive business services and those that are integrally interdependent with manufacturing and integrally interdependent with major sectors of high value added manufacturing and mining – that are populated largely by those trained in the social sciences.

However, the arts and humanities are yet to nail their relationship to innovation thinking and remain problematically related, without a convincing framework and robust evidence base. The reports presented today are another step toward that framework and that evidence base.

We can understand this as very much related to differential knowledge modes. The paper being launched today, *Arts and Humanities Research and Innovation* points to three fundamentally distinct modes, the scientific (predictive and universalisable), the humanistic (interpretative, explicit and analytical) and the practice-oriented (interpretative, intuitive and adaptive). These differences makes connecting to innovation thinking, with its history of close alignment to science, seem to many like a category mistake.

It is also the reason for a broad-based scepticism in the arts and the critical traditions in the humanities and social sciences which eschew reduction to what they might regard as narrow, scientistically defined categories like innovation.

Or - and this is the equal but opposite tendency in the arts - there is a too-ready assertion that all artistic practice is intensely innovative and therefore deserves attention as pure output unrelated to economic gain, social benefit, or other assumed derivatives of the innovation process.

However, these issues have not prevented significant conceptual, as well as practical institutional and policy, advances being made internationally around the role of the arts and humanities in innovation. Substantial space has been created recently for the role that can be played by strategic investments in the arts and humanities within an innovation framework:

- The European inclusive understanding of science has seen 'Socio-economic Sciences and Humanities' recognised as a stand-alone category in EU's framework program FP7 as well as humanistic knowledge claims being welcomed and embedded in a wide range of governing themes for the program.
- the creation of the Arts and Humanities Research Council in the UK from 2005, and its capacity and appetite for strategic investment in interdisciplinary and larger-scale, cross-sectoral, projects and a strong research focus on knowledge transfer. When the subject of knowledge transfer is examined, as MLA London have done in their paper featured today, the results can be surprising and impressive.
- the evolution of the creative industries project in Britain and elsewhere. The movement from CIs to creative economy with its shift in focus from sectoral specificity to human capital
 - The interesting interrelationships between Creative Britain and the broader Innovation Nation policy framework both from earlier this year.
 - our CCI research for NESTA and in other countries that looks at the degree to which those expert in arts practice disciplines are 'embedded'/employed increasingly across a wide swathe of the economy. NESTA's report *The Art of Innovation* under discussion today both reinforces the importance of human capital as a locus of attention and complicates this picture by insisting on innovative dispositions within the cultural sector not only in their value outside it
 - the notion of creativity as an input to other sectors of the economy is at the centre of claims around the creative economy. There is now good evidence from the 4 years of the Better by Design program in New Zealand that their ambitious goals of improving

expert performance through design as a crucial value-add to manufacturing, tourism and other export-facing industries.

I want to stress two key strategic issues which to me are critical in advancing the conceptual and policy underpinnings of arts and humanities and innovation, and then leave you with one provocation.

The first is collaboration across the HASS and STEM sectors in research and curriculum. It seems to me critical that delaying hyper-specialisation in the upper years of secondary school and lower years of undergraduate education, not simply by enforcing a broad range of subject choice but also the creation of some space for problem-based cross disciplinary approaches, is important. This will delay the loss of apprehension of the three knowledge modes. At the postgraduate and research training end, the capacity to bring specialisations together in dynamic multidisciplinary formation is equally critical, reconnecting the knowledge modes.

This is not a matter of dissolving disciplinary specificity into a melange of fashionable themes and problems (although at the cutting edge of knowledge we expect to find multiple emergent new disciplines), but a pedagogical and research funding focus encouraging and enabling multidisciplinary teams to work effectively on the big issues facing us. It is about coordination between disciplines rather than necessarily a subsumption of disciplines. Collaboration recognises that many, if not most of the countries most important priorities require multiple disciplinary inputs due to their complexity and scale.

The second issue is human capital. The theme of human capital in innovation thinking

- allows for an approach to disciplinary training that stresses the distinctive value of each for innovation, moving away from assumed science-based priorities
- It also goes to the centre of fifth generation innovation thinking, where it is dynamic linkages facilitated by personnel transfer/talent mobility that ensure the flow between stock in the system.
- It is the domain where government is on surest ground in defining its role in innovation, through education and training and its derivatives
- It is also critical for the way in which it addresses both the supply side and demand side of innovation.

So what about the demand side of human capital? The demand side goes to the question of absorptive capacity: critically trained, socially aware, sophisticated consumers who connect their buying habits with their identity as citizens, who play a critical role in 'demanding' innovation and can cope with, respond to, and absorb innovation. They can appropriate, adapt technologies, new knowledge to their own ends in sometimes surprising, unintended and innovative ways.

This recognises increasing claims around user-led innovation and collaboration as essential to knowledge solutions, but also addresses key aspects of the role of arts and humanities in innovation.

The humanities play a central and well recognised role in 'slowing down' scientific progress – insisting on and providing the ethical and other holistic approaches to the social implications and applications of knowledge (the ethics of Stem Cell Research, biotechnology, GM foods, etc.). But arts and humanities can also 'speed up' social absorption of innovation by understanding breaking trends, interpreting difficult and complex challenges to belief, custom and practice, giving us the insights and frameworks to understand and absorb change.

Large scale, *longue durée*, shifts in human understanding have been fundamental to social change. The paper being launched today *Arts and Humanities Research and Innovation* has some telling examples, such as the role played by Charles Dickens in changing attitudes to the poor through the main organs of popular culture of the day.

When we think in these terms, a galaxy of examples present themselves. I think, for example, of the fundamental shifts due to the work of cross-cultural understanding from anthropology and ethnography in understanding Aboriginal spirituality, social organisation and human agency in the face of settler colonialism.

Design and fashion 'speed up' the absorptive capacity of the consumption base of society, speaking to the demand side as much as the supply side of innovation. And acts of humanistic interpretation are essential in such cases – just as John Berger's 1972 *Ways of Seeing* deconstructed received wisdom rusted onto official and high culture, so Dick Hebdige's 1979 *Subculture: The Meaning of Style* brought structure, meaning and intent to barely understood marginal and

resistive subcultures - and taught a whole generation how to read personal fashion.

This leads me to a final provocation.

Creativity and innovation are usually treated as two interdependent sides of the one coin. But in the dominant discourse on innovation, creativity is somewhat of a black box, while innovation has been defined in deceptively simple terms: 'innovation is the successful exploitation of new ideas'. There are those who contest this deceptively simple take on innovation, as it is a post hoc understanding that writes out highly experimental, risky processes which can result in failure as much as success.

Creativity, on the other hand, is extraordinarily broad, a generic human attribute, and actual policies to promote it often are hard to formulate, difficult to implement and almost impossible to measure. So it is innovation that is focused on, despite its problematic post hoc definition, because it appears a more solid, measurable, policy category.

So let's reverse the order. Rather than creativity as a largely unmeasurable input to innovation, let's consider innovation as by and large what it is held in the mainstream to be – the 'successful exploitation of new ideas', but consider creativity as the uses to which innovation is put.

This takes creativity out of the domain of protean universal human attribute, pre-commercial, psychologistic in nature and makes of it a more measurable social, cultural, and economic activity

- what are the *uses* to which innovations have been put?
- places stress on adaptation and absorption and demand-side of an innovation society
- and connects the debate to cutting-edge user-focused innovation as they are being played out as much in humanities fields such as cultural and media studies, Internet studies as in business and management.

As I said, the framework of innovation gives us an historic opportunity to refresh the arguments and evidence for the value and role of the arts and humanities. The AHRC and NESTA are leading the way and today we'll see more of why that is.