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Inspiring imagination – education and learning: the university experience in the regional development cocktail

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Inspiring imagination – education and learning: the university experience in the regional development cocktail

Abstract

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Keywords

regional development, community engagement, universities, higher education, creativity, imagination, leadership, networks, knowdes, knowledge economy

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Title Page

Inspiring imagination – education and learning: the university experience in the regional development cocktail

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Theme: *The Regional Development Cocktail: Shaken Not Stirred*,

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ABSTRACT

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Using contemporary and historical experience at the Shoalhaven Campus the paper explores how Shoalhaven campus can be seen as an integral ingredient in the Shoalhaven development cocktail. In doing so, it provides an analysis that matches other regional campus experiences.

What is Shoalhaven Campus? An educational precinct based on a campus co-location model. In this instance, TAFE and University are co-located on the campus grounds and share library, IT, telephone and campus services facilities.

The inputs, which mean the campus develops, are matched by the development of the region. Imagination is the alcohol in the cocktail. The university needs a symbiotic process whereby it is imaginatively blended into community networks with information and inspiration flowing into the regional development process.

Inspiring Imagination – education and learning, the university experience in the regional development cocktail

Introduction

This paper suggests that imagination ferments regional development. In considering imagination in the regional development cocktail, it focuses on two perspectives:

Firstly, the experience of the University of Wollongong in the Shoalhaven to explore how the kind of ‘sea change’, the development of ‘mental models’, the change of ‘mindset’ is spurred by a University’s arrival and growth; and

Secondly, how the development of the region itself is wired into development of the University activities and vice versa. Critical in this process from the University perspective is the current trend to community engagement. University Mission Statements and the relevant research literature increasingly identify engagement with their local communities as a key role of modern universities. It has been argued that there is a “considerable undervaluing of the potential role of higher education in helping to design a creative and viable future for regions in a modern knowledge-based economy” (Garlick and Pryor 2002: 14). Thus, the paper considers how education, and in particular regional universities or regional university operations, are part of the regional development cocktail.

Regional economies historically were typified by the need to be self sustaining “with one or at best, two industrial sectors that could be considered integrated into national and international markets.”(Kennedy & Foreman 2003:3) Regions were thus “first and foremost inwardly focused communities satisfying their own basic economic needs.” (Kennedy & Foreman 2003:3)

However, the development of the knowledge economy has had an impact on the regional experience. ‘Creativity ... is now the main internal driver for regional viability in a knowledge-based global economy’ (Garlick and Pryor 2002: 13). From a business perspective, diversification of the economy and increasing competitiveness based on knowledge skills and creativity have become essential. These issues are of the utmost importance for older developed regions as they attempt to reinvent themselves, but they are also critical in developing regions whose industrial base is being changed through a variety of growth factors.

How does a region model itself amidst these changes and what effects are possible when a University is part of the mixing process? Such questions propose that there is a kind of self consciousness which typifies a region beyond its economy, geography and demography. This is not a new notion and debate about what this means is not the matter of this paper. However, that this self consciousness manifests a culture, a social capital and a mindset that seems to typify a region is one of the assertions on which this paper is based. This assertion is made knowing

that there will be individual manifestations of this self consciousness both between different smaller parts of one region and between regions.

What is this paper suggesting in its use of the word “imagination”?

The Shorter Oxford Dictionary defines “imagination” as “the mental consideration of actions and events not yet in existence; scheming or devising; a fanciful project; the power which the mind has of forming concepts beyond those derived from external objects.”

Specifically then, imagination is all those individual creative envisionings which work together to lead to development; individual, social, economic. Imagination is essentially a creative activity. Imagination plays a part in the manifestation and development of a regional self consciousness or mindset. This is a crucial ingredient in a world which is facing ‘...a number of new realities many of which have a strong regional dimension’ (OECD 1999: 10).

It goes without saying that in regional development such creativity goes beyond the elements of any given enterprise or action to gain more from the whole than from any of its parts, but also that each part contributes to the whole. There is a part that is played in this by those who are leaders in endeavours in the region and necessarily by both individuals and groups who make up the people and institutions of a region.

Leaders both inspire ideas and also identify and develop ideas from their surrounds and networks. Without collaboration and attendant development such ideas are lost to the future and fail to become knowledge accessible to those needing it. Larsen of the OECD (quoted in ABN 2003:23) argues that in placing innovation and learning at the core of development “the challenge is to link individual learning to a larger environment in which institutions also are aware of the need to innovate and learn, and are capable of doing so”

Resistance to change and the impact of self interest are challenges to the creativity of imaginative development. Potential for development is enhanced where collaboration, cooperation and coordination are effective. It is here that University endeavour fits and not only as educational institutions in the knowledge hub but as collaborators in regional industry clusters, as cooperative partners in the development of regional plans and as collegial partners in managing and financing infrastructure and in assisting in creating and maintaining better public private partnerships (ABN 2003). In this range of creative interactions, the meshing of the imaginative inspirations of collaborative partnerships provides the yeast fermenting the regional development cocktail.

A region developing: a changing knowledge base

The Shoalhaven region, referred to as the City of Shoalhaven, consists of 49 separate towns and villages dispersed over 4,660 square kilometres of the south eastern seaboard of N.S.W., Australia. The main administrative and commercial

centre is located in Nowra, which is approximately 160 kilometres south of Sydney. The 2001 census indicated a population of 83, 548 persons.

The main industries in the Shoalhaven are: Retail Trade; Health and Community Services; Manufacturing; Construction; and Property Services and Business Services; Government Administration and Defence; Education; Accommodation; Cafes and Restaurants (SACC 2004: 3).

The Shoalhaven region is in the process of broadening its economic base to include more knowledge - intensive industries. Business networking and regional development planning are recognised as necessary by leaders in the community. However, the Shoalhaven region's economic base is reflected in the qualification levels of its residents. Educational achievements and aspirations can be indicative of a mindset bound by not only the traditional industries of a given region, but also the qualifications of family and social networks. 'Many students in regional areas come from homes where their parents don't have tertiary qualifications' (Sutton 2003: 3).

The 2001 ABS census revealed that the majority of educational qualifications in the Shoalhaven region were either at the Certificate or Advanced Diploma and Diploma level. 20.5 per cent of Shoalhaven residents held a Certificate qualification in comparison to the NSW average of 16.4 per cent. 5.4 per cent of Shoalhaven residents held qualifications at the Advanced Diploma and Diploma level in comparison to the NSW state average of 6.2 per cent.

However at the Bachelor Degree level, only 5.2 per cent of Shoalhaven residents held degrees - half the NSW state average of 10.1 per cent. A contributing factor to these figures has been the fact that the younger demographic which aspired to higher education and a professional career has traditionally left the Shoalhaven region in pursuit of a university qualification but rarely returned to supply the region's professional needs. We will return to this theme later in this paper.

Community and Business Links – a focus on innovation

Regional development requires the synergies of a supporting organisational infrastructure. The Shoalhaven region is fortunate in being serviced and supported by a broad range of local, state and federal government development agencies focussed proactively on the Shoalhaven region.

Representatives of these agencies meet in a variety of ways. For example, at the local government level, the Shoalhaven City Council has an Economic Development Unit which amongst its other development activities and network support, hosts a tri-monthly Shoalhaven Economic Development Practitioner Group meeting at which members of the above departments, plus representatives of the Shoalhaven Campus, Shoalhaven Industry and Business Association and other industry and tourism representatives. The meetings are a means of exchanging information, discussing issues of common interest and of creating a vision regarding development of the Shoalhaven region. Networks such as these rely on what the OECD refers to as 'animateurs who generate dialogue between the various organisations' (OECD 2004: 18).

Accessing the visions of these groups is a crucial task for a regional campus wishing to tap into local industry and employment generating initiatives. Shoalhaven Campus staff have formed links with these groups and regularly meet with them to create maximum synergies. These meetings contribute in creating a university aspirational mindset in the community.

Networking of this type assists the communication of knowledge and information amongst the various organisational nodes. Given the importance of information exchange in the knowledge economy, this paper proposes that they might be more appropriately referred to as 'knowdes'.

An imaginative cooperation

Similar to the experiences of other University campuses, a range of actors were responsible for the establishment of the Shoalhaven Campus at West Nowra. Decisions relating to the location of the campus and which courses would be delivered were 'based on extensive community consultation, the completion of skills audits, and an assessment of local demand' (Garlick and Pryor 2002: 66)

The establishment of the Shoalhaven Campus was embedded in a clearly articulated regional development strategy. This was created jointly by the University (initial viability study), the Shoalhaven City Council (economic development strategy), the Federal Government (through the Local Member and various government agencies), TAFE, Community groups (eg the local Aboriginal community who withdrew a land claim on the university site) and the entrepreneurial "walking and talking" skills of some significant individuals who inspired the vision of a University in the Shoalhaven.

The resultant establishment of the Shoalhaven Campus was symbolic of the collaborations which are the hallmark of creative regions. The campus is sited at West Nowra on an elevated 40 hectare site of natural bushland with sweeping views of the Budawang Ranges to the west. The campus was based on a 'Multi-partner campus' model with the university and TAFE co-located on the same site and sharing infrastructure, Library, Canteen and ICT facilities. The Shoalhaven campus was also part of the larger South Coast Education Network (SCEN), an initiative of University of Wollongong. Lectures and tutorials are 'flexibly delivered' via a combination of videoconferencing, WebCT, lecturers and tutors (Bell and Lefoe 1998: 65). The majority of the casual tutoring staff is professionals employed by local Shoalhaven businesses.

The Shoalhaven City Council saw the establishment of the Shoalhaven Campus education precinct as an integral component of the Shoalhaven region's economic development and the broadening of its economic base. Evidence of the Shoalhaven City Council's recognition of the importance of the Campus to economic and social development in the Shoalhaven region is provided in their draft 2002 Economic Development Strategy document which states that the Council should:

Ensure the expansion of the University of Wollongong [at West Nowra] and integrate the University into the business and wider community.

And that the campus should provide:

...courses that will address the needs of local businesses and the physical environment of the Shoalhaven thereby creating a solid foundation upon which to build sustainable economic development within the region. (Shoalhaven City Council's Economic Development Strategy (revised December 2002))

A report in the local Shoalhaven newspaper also identifies the potential importance of the campus to the local region:

...one factor not often considered as a key to population and economic growth is the impact of tertiary education. With universities expanding their facilities into regional communities such as Nowra, the best and brightest young minds of local communities are more likely to remain in regional areas. Universities also provide the "intellectual bedrock for the growing knowledge-based industries ... the West Nowra campus of Wollongong University could well be a key factor in future growth for the region. (Ellard 2004: 6)

Interesting in these last two quotes is their timing. Two years separates their publication; the former part of the strategy which lead to the Campus; the latter indicative of development in embedding the vision two years on. They are evidence of imaginative creation of a shared vision. They are part of building the story, fostering the dream and engaging hearts and minds, as opposed to a simply rational analytical process. The news media in the latter can be construed as an instrument in the process of mindset change.

A University in the region – for what purpose?

University economic contribution to regions

There is no lack of evidence indicating the financial contribution of education services to the national and regional economies. There is also an increasing 'recognition of education as a new central resource for regional and national policy' (Stevenson 1992: 5).

At the macro level, education services contribute to the economic development of regions in numerous ways. For example, education services comprise an increasing share of Australia's knowledge-based services exports. In the year 2002 – 2003, Australian education exports generated \$5.2 billion and have grown to become Australia's sixth largest export earner, now exceeding the value of Australia's wool exports (Department of Foreign Affairs and Trade 2004). Knowledge-based services such as education also play a crucial role in the diffusion of innovations (Stevenson, Currie, Lepani and Johnston 1993: 113).

At the micro level, the presence of higher education facilities also contributes to the intellectual capital assets of and productivity of a region. A strong positive correlation has been established between productivity and higher education qualifications. OECD research estimates that 'one additional year of education raises output in the long run by about 6 per cent' (OECD 2004:3). This finding is

supported by research which found that ‘productivity may be as much as doubled by higher education’ (Jenkins 1995a in Gemmel: 9). Further analysis in the Australian context supported a similar positive correlation between higher education qualifications and productivity (Jenkins 1995b in Gemmel: 9).

At an individual level, estimates of the “increase in earnings that flows from obtaining a bachelor’s degree is around \$430,000 over the individual’s lifetime” and that the “internal rate of return to tertiary education ... significantly exceeds the real interest rate” (Duncan 2004: 278). So there is not only a boost to the economy generally through industrial change but also changes in spending power and choices of a significant group which impact on other economic activity in the region.

The growth of the ‘Lifelong learning’ phenomenon also contributes to the increased demand for Higher Educational services with the consequent flow-on economic effects.

The symbolic capital associated with the aesthetic siting and architecture of the Shoalhaven campus cannot be measured economically. However, its contribution to the evolving vision and self-consciousness of the Shoalhaven region is obvious to staff, students and visitors alike.

The construction, operation and maintenance of the Shoalhaven campus can also be seen as contributions to the economic development of the Shoalhaven region. Other areas of contribution include:

- educating and retaining local graduates in local area;
- assisting the shift from manufacturing to knowledge/service-based economy;
- indirect economic benefit to Shoalhaven, i.e. salaries, etc;
- assisting with ‘student placements to local businesses’ thereby ‘introducing new ideas and innovative practices to local industries’ (DOTARS 2003: 7).
- the presence of Shoalhaven campus acting as a ‘magnet’ to attract research funding to the Shoalhaven region

The knowledge economy: regional human resource implications

Globally, the demand for knowledge-intensive services is growing rapidly. It is ‘estimated that more than 50 per cent of Gross Domestic Product (GDP) in the major OECD economies is now knowledge-based (Shoemaker 2000: 2).

An economic transition of this nature requires an increased presence of ‘knowledge workers’ (Drucker 1994: 2) or ‘symbolic analysts’ (Reich 1992: 182). Essentially, these are highly qualified professionals who

... can often draw upon established bodies of knowledge with the flick of a computer key. Facts, codes, formulae, and rules are easily accessible. What is much more valuable is the capacity to effectively and creatively *use* the knowledge (Reich 1992: 182).

This growing importance of creativity in the ‘knowledge intensive sectors’ of the economy is well recognised in the literature (Garlick, 2002: 3). The ability to

“generate non-linear solutions to issues that contribute to their local communities” (Garlick, 2002: 23) economies necessitates the growth of creative professionals in regional economies. Imagination is, of course, central to this process of creativity; thus fostering the flow of ideas. Changing the communities’ aspirational mindset is also part of this process.

Supplying a region’s human resource needs: three options

Appropriate human resources are essential in regions broadening their economic base to include a knowledge economy sector. As previously discussed, the Shoalhaven region has a shortage of the tertiary qualified professionals necessary to supply the needs of its expanding knowledge-intensive services. A region has two or three options to develop these resources: Option 1, train locally; Option 2, ‘import’ human resource requirements; or Option 3, sub-contract expertise.

Option 1 - Train locally

The first option of training professional human resource requirements locally requires educational infrastructure eg a university and the necessary staff to teach.

The Shoalhaven Campus exists because of local initiatives in collaboration with University of Wollongong responding to Option 1: train locally. Shoalhaven Campus was to become, and in more than one sector, is becoming integral in supplying the region’s graduate human resources needs. The first course offerings at Shoalhaven Campus were developed based on University of Wollongong research in the Shoalhaven community (Fuller 1996). Ensuring the relevance of degree offerings to the Shoalhaven region is of crucial importance in order to avoid upskilling local students in ‘programs that are of no local relevance and ... causing a knowledge outflow’ of graduates and knowledge to other regions (Garlick 2003: 2).

Option 2 – ‘Import’ human resource requirements

The second option of importing human resource requirements can be challenging in rural and regional areas remote from cities. In achieving Option 2, the Shoalhaven has experienced difficulty recruiting professionals and especially young professionals. The work of Richard Florida (2003) has highlighted the importance of environment, facilities and culture to creative professionals. Creative professionals seek a region with a self consciousness and mindset supportive of their imaginative occupational contribution to the knowledge economy.

A Shoalhaven City Council cooperatively developed local research project has sought to address this need by establishing the “Operation Seachange project” (<http://shoalhavenseachange.com.au>). “Operation Seachange” can be viewed as a marketing campaign designed to highlight the lifestyle attractions of the Shoalhaven region and appeal to the imaginations of this niche demographic.

For this paper, the significance of Operation Seachange is the knowledge networks supporting and growing from it and inspiring changes in mindset in the

community. It is about imagining a different place. The University is intricately woven into this process. (Keene and Pullen 2004)

Option 3 – Contract expertise

The third option for supplying regional human resource requirements is that of contracting extra-regional expertise for specific purposes and projects. However this option can be considered as a short term, potentially unsustainable solution for services and industries requiring a sustained presence of this type of expertise.

The Shoalhaven has used all three options. In all three the University has a role as part of imagination, the development of ideas inspiring development in the region. In Option 3 not only have contract staff come into the region for particular businesses, there are already research collaborations in the community with staff from the Wollongong Campus of University of Wollongong. Such collaboration ferments the possibility of further research collaborations developing, with Shoalhaven campus as a local university campus strengthened with muscle from the University of Wollongong.

The creation of Research Centres like the newly announced Marine and Freshwater Research Centre provide foci for the creation of links which foster development of the Campus. But this intended Campus development will be little more than a Facility if the research process is isolated in the ‘ivory tower’. It needs links to the community at a range of levels so that the research activities are wired into the development of Marine and Aquaculture industries in the region. (Sutton 2004)

Universities as part of the change of regional mindset

We can join in the discussion of whether universities, as they move into regions, become the “symbols and engines of regional dynamism and quality of life” (Belanger 1994:69, Teather & Teather 1999:478). At the same time, we can be aware that for established campuses it is reasonable to posit that the University is a “crucial focus, symbol and shaper of regional identity” (Teather & Teather 1999:474).

The Shoalhaven experience and, dare we suggest this paper, provide another lens on these perceptions of the University in the region, not just because its campus is at an earlier stage in development and that campus is a “remote campus of a larger institution”. We suggest that without imagination, without creative links, without dynamic interplay with a range of partners, the university tends to become simply another institution in the community rather than reaching its full potential in the knowledge hub.

Inspiring the community is part of the process of changing the regional mindset so that development in sustainable patterns occurs. The University exists to some degree to develop aspirations amongst those in the community who will take the region into the future. Clearly this is tied to the human resource needs but goes beyond them in developing the orientation to learning. The role of educational institutions is bound up in developing human capital in the region. The more

intricate the weaving of the institution into the social and community fabric, the more dynamic the potential.

The Shoalhaven Campus is at a phase of development where it is still a relatively minor player in its region. As a consequence, the University is not part of the aspirations of many potential students. It is therefore crucial for the Campus to become part of the knowledge networks of schools, other education providers and the wider community. The ways these changes in mindset are being developed include imaginative links with schools and community organisations where the Campus is being positioned in the minds of the community as a resource for them to use when they need inspiration, development and learning.

It is here that the Campus is fortunate in being a co location site with TAFE. The concept of pathways to learning and of learning in the community are part of the vision of the community of learners both at the Campus and in the region. (Collins 2003 quoted in Sewell 2003) Regular visits by school staff and/or students have been part of the process of raising awareness of learning options beyond school and locally rather than simply focussing on university options. The strategy has been to be accessible, to be part of the base of ideas, to foster learning in and as a community.

By having community members, community organisations, schools and business groups use the Campus as a resource, the Campus becomes part of their imagination. When groups meet to plan an event, the Campus comes to mind as a venue that offers a creative environment away from everyday life but part of the 'knowdes' of Nowra.

The University~Community nexus and imagination

Generally in the regions, there is no doubt of the enthusiasm of locals for their university. People believe that

“through the establishment of [their university] this part of the world would take on a greater presence, a new identity and reputation throughout the world by virtue of the publications and expansion to the knowledge base which would encapsulate some facet of where we live, what we do and who we are” (Hill, 1994:157-8)

This level of dreaming, of inspiring statements is part of the imaginative process in the development of a university. Like all institutions, however, there is a need for renewal, for new perspectives. Universities exist for both teaching and research but the nexus between these and the local and wider community is critical in the operation of the university whether this be for its success in gaining national, international or local moneys with which to fund its operations, or for developing the kind of region which is forward looking and resilient. Imagination is the key link.

If universities are wired into their region then the fortunes of the university and the region tend to parallel in the flows of inspiration, and ultimately, dollars, between the region and the university. Organisation analysts have made calls for learning organisations. In the paralleling suggested here and where the University

is a critical element in imagination in the region, awareness of the kind Florida's analysis suggests is appropriate.

To be effective in this increasingly borderless economy, regions must be defined by the same criteria and elements which comprise a knowledge-intensive firm: continuous improvement, new ideas, knowledge creation and organisational learning. Regions must adopt the principles of knowledge creation and continuous learning; they must in effect become *knowledge-creating* or *learning regions* (Florida in Klich 1999:297)

As well, learning regions seek and promote development, a notion which meshes with Porter's (1990) proposals on the need for both competition and collaboration where businesses innovate via knowledge, strategic advantage and inter-connection. Such activity is supported by creative and continuously inventive work to inspire collaboration, to develop "know-how, resources, technologies, and motivation that pushes a region's enterprises along an outward-looking, high growth" (ABN 2003:23) and needfully sustainable pattern.

Community engagement – imaginative links with the region

Garlick's (2000:79) analysis suggests campuses identified as having high engagement with respect to regional economic development priorities have a number of features:

- Front running and ongoing association with economic development leadership groups of the region;
- University campus provided infrastructure and encouraged knowledge worker input on the campus to facilitate development of initiatives; and
- Leadership involvement in regional economic priorities at the uni campus was at highest levels.

Shoalhaven Campus provides an interesting example of the development of this pattern of community engagement. As demonstrated in discussion of links with innovative networks in the Shoalhaven, the Campus has a history of cooperation. Central to all of this is of course that both the university and the region are operating as learning organisations and this can mean their development is linked if they are meaningfully engaged.

-Garlick (2000:79) suggests that government funding initiatives need to be focussed on campuses which are actually engaged with the community. In other words, the flow of imagination needs external support as well as policy support with motivators/champions/entrepreneurs vitalising the operation.

A current project in fermentation – a case study of imagination in process

A joint project that is establishing and strengthening links between the campus and the local community is the 'Pathway to Learning' project. Initially, visualised as a walking track connecting the Shoalhaven Campus with the township of Nowra, the pathway project has grown into a community project involving numerous stakeholder groups.

The pathway has multiple uses and meanings. Its initial utilitarian pathway role has evolved and had other uses and meanings overlaid on it.

This is perhaps a good example to conclude this paper as it demonstrates the use of imagination and the creative visionings' of different segments of the community for what was initially viewed as a 'walking trail'.

Conclusion

Based on the experience of the establishment and gradual integration of the Shoalhaven Campus into the local economic community, this paper has argued that the growing importance of creativity in the 'knowledge intensive sectors' of the economy has flow-on effects for the roles of universities and regional development strategies.

The growing regional demand for creative professionals presents new challenges for the strategic collaboration of universities and regional communities.

Imaginative solutions, finding new imaginative methods of combining and collaborating to fulfil these human resource requirements is of course, central to this process of creativity.

The paper proposed that there is a kind of self consciousness which typifies a region beyond its economy, geography and demography. This self consciousness manifests a culture, a social capital and a mindset that seem to typify a region. The mental models by which a region views itself affects the kinds of development which take place and how the region takes itself into the future.

Shoalhaven Campus is part of the regional development cocktail by inspiring imagination in the Shoalhaven.

References

- (ABN 2003) Australian Business Foundation, (2003) Regional Infrastructure: New Economic Development Opportunities for the Hunter, Illawarra and Western Sydney Regions, Australian Business Foundation Ltd, Sydney.
- Belanger, C.H., "Can a University be both Regional and Global?" in Dahllof, U. & Selandar, S. (eds), 1994, New Universities and Regional Context, Papers from an International Seminar, Sundsvall, Sweden in 1992, Uppsala Studies in Education, 56.291
- Bell, M. and Lefoe, G., (1998) 'Curriculum Design for Flexible Delivery – Massaging the Model', In Corderoy, R.M. (Ed.) Flexibility: The Next Wave, 15th Proceedings of the Australian Society for Computers in Tertiary Education. University of Wollongong.
- Burnley, I.H. & Murphy, P., (2004) Sea change: movement from metropolitan to arcadian Australia, UNSW Press, Sydney
- Collins, R., (2003) quoted in Sewell, L. "Fostering a society of learners", Illawarra Mercury, 6 June 2003, p.4
- Dahllof, U. & Selandar, S. (eds), 1994, New Universities and Regional Context, Papers from an International Seminar, Sundsvall, Sweden in 1992, Uppsala Studies in Education, 56.291
- Dahllof, U. & Selandar, S. (eds), 1996, Expanding Colleges and New Universities, Papers from an International Seminar, Ostersund/Trillevalen, Sweden in 1995, Uppsala Studies in Education, 66
- Department of Foreign Affairs and Trade, (2004) 'Education Exports Lead Services Trade Growth', Media Release from the Australian Department of Foreign Affairs and Trade, Thursday, 22 April, 2004.
- Department of Transport and Regional Services, (2003) Community and Campus: the benefits of engagement, Commonwealth of Australia, 2003.
- Drucker, P., (1994), 'Knowledge Work and Knowledge Society: The Social Transformation of this Century', 1994 Edwin L. Godkin Lecture delivered at the John F. Kennedy School of Government, Harvard University, May 4, 1994.
http://www.ksg.harvard.edu/ifactory/ks.../www/ksg_news/transcripts/drucklec.htm
- Duncan, M., Leigh, A., Madden, D., and Tynan, P., (2004) Imagining Australia: Ideas for our Future, Allen and Unwin, Crows Nest, 2004.
- Ellard, G., (2004) 'Nowra listed as top boom town', Businessmonthly/upfront, South Coast Register supplement, Monday, July 5, 2004.
- Florida, R.L., (2003) The rise of the creative class: and how it's transforming work, leisure, community and everyday life, Pluto Press, Annandale, NSW
- Fuller, D., (1996) Provision of Higher Education on the South Coast of N.S.W. – Options Study, Department of Employment, Education, Training and Youth Affairs, Evaluations and Investigations Program, University of Wollongong, 1996.
- Garlick, S., and Pryor, G., (2002) Universities and their communities: Creative regional development through knowledge-based engagement, Report prepared for The Department of Transport and Regional Services, August, 2002.
- Garlick, S., (2003) 'Universities and their communities: What's the connection?', Paper presented at the RMIT Community and Regional Partnerships Forum, September 5, 2003.

Hill, M., (1994) "A Community of Scholars in a Regional Context. A New University for Northern British Columbia" in Dahllof, U. & Selandar, S. (eds), 1994, New Universities and Regional Context, Papers from an International Seminar, Sundsvall, Sweden in 1992, Uppsala Studies in Education, 56.291

Jenkins, H. (1995a), Education and Production in the United Kingdom, Nuffield College, Oxford, Economics Discussion Paper No.101, quoted in Gemmel, N., 'Externalities to higher education: a review of the new growth literature', The National Committee of Inquiry into Higher Education: Report 8, <http://www.leeds.ac.uk/educol/ncihe/report8.htm>, 12/7/2004.

Jenkins, H. (1995b), Infrastructure, Education and Productivity: A Multi-Country Study, DPhil thesis, Nuffield College, Oxford University, quoted in Gemmel, N., 'Externalities to higher education: a review of the new growth literature', The National Committee of Inquiry into Higher Education: Report 8, <http://www.leeds.ac.uk/educol/ncihe/report8.htm>, 12/7/2004.

Kanter, R.M., (1995), World class: Thriving locally in the global economy, Simon and Schuster, New York.

Keene, S. and Pullen, G., (2004) Operation Seachange – solving the dilemma of regional employers, Paper prepared for the 2004 Regional Science Conference, The Regional Development Cocktail: Shaken not Stirred, Wollongong, September 28 to October 1, 2004.

Kennedy, N & Forman, D. (2003) A New Angle on Regional Infrastructure, Australian Business Foundation, Sydney

Klich, Z. (ed.), (1999) Universities and Regional Engagement, Southern Cross University Press, Lismore, 1999.

Lefoe, G., & Albury, R. M., "Creating new learning environments off campus in the Faculty of Arts : what impact on teaching and learning on campus?" In 'Winds of change in the sea of learning : proceedings of the 19th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) : 8-11 December 2002', edited by A Williamson, C Gunn, A Young and T Clear, v.1, pages 369-377. Auckland, New Zealand : UNITEC Institute of Technology

OECD (1999)The Response of Higher Educational Institutions to Regional Needs, OECD Programme on Institutional Management in Higher Education, Paris.

OECD (2004)'Investing in human capital', OECD, Economics Newsletter , January 2004, Issue 1.

Porter, M., (1990) The Competitive Advantage of Nations, Macmillan Press, London, 1990.

Putnam, R., (1993) Making democracy work: Civic traditions in modern Italy, Princeton University Press, Princeton, New Jersey

Reich, R.(1992) The Work of Nations, Vintage Books, New York, 1992.

Sewell, L. "Fostering a society of learners", Illawarra Mercury, 6 June 2003, p.4

Shoalhaven Area Consultative Committee Inc., (2004) Strategic Regional Plan 2004 – 2007, <http://www.sacc.com.au>

Shoalhaven City Council (2002) 'Economic Development Strategy' (revised December 2002)

Shoemaker, A., Allison, J., Gum, K., Harmoni, R., Lindfield, M., Nolan, M., Stedman, L., (2000) Multi-Partner Campuses: The future of Australian higher education?, Evaluations and Investigations Programme Higher Education Division, Department of Education, Training and Youth Affairs, 00/13, October 2000.

Stevenson, L., (1992) 'Technology Precincts', The Australian Centre for Innovation and International Competitiveness, The University of Sydney, June, 1992. In Phillimore, J. And Morris, P., Bentley Technology Precinct: An exploratory study, Western Australian Technology and Industry Advisory Council, September, 1992.

Stevenson, L., Currie, J., Lepani, B. and Johnston, R., (1993) Innovation in Australia's Service Industries, Australian Centre for Innovation and International Competitiveness, University of Sydney, Report Commissioned by the Department of Industry, Technology and Commerce, Australian Government Publishing Service, Canberra, April, 1993.

Sutton, G., (2003) 'UOW – an engine of economic, cultural and social development', Paper prepared for the Business Higher Education Round Table B-HERT News, July, 2003. Accessed at <http://www.uow.edu.au/about/community/statement.html> 23/8/04.

Sutton, G., (2004) 'Freshwater Research Centre Speech' 2004.

Teather, E.K. & Teather, D.C.B., (1999) "Service to the Country? Ambivalences and ambiguities in the social and cultural dimensions of Australia's first regional university", Rural Society, Volume 9, Number 2, p. 473-490.

The Shorter Oxford Dictionary On Historical Principles (reprinted 1991), Onions, C.T. (ed.), Vol. 1, A-Markworthy, Clarendon, Oxford