



International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 1, Issue 1, May 2013

The Value of Regional Universities in the Knowledge Age.

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Abstract

To further the advancement of society and in particular those societies contained within regional catchments, this article argues that the imperative element of success is higher education, and further that multipliers are applied when the knowledge generated is aligned with the regional vision and takes full consideration of regional needs, resources, assets and societal challenges. The product of this circumstance the author has identified as 'Meta Civica', a state of higher order society in a qualitative progressive sense. This article explores the associated premises as they relate to regional universities in Australia.



Knowledge economy, knowledge society, and the knowledge age are well worn clichés that have developed to explain the phenomena where by society and the economy are progressed largely by the production and use of knowledge to create new products and services. (Bell 1973; OECD 1996; Donkin 1998; Notwotney; Scott; Trow et al) Globalisation is one of the outcomes of the advances in knowledge production and the sharing of knowledge in the new technology race era, however questions are being asked and some confusion is growing in regard to new roles for universities and government, society and industry in this rapidly changing landscape. (Bengt-Ake; Lundvall) Further consideration of how this phenomena plays out in a micro context will be vital for the future ongoing development and prosperity of regions. Indeed it seems that it is quite acceptable amongst macro economists to assume that what happens at the macro-economic level can be well understood and successfully transferred to the micro delivery level without fully considering the relationships between technology and the institutions committed to innovation learning and the broader implications around social capital and the economy.

Before focusing on such considerations it would be an important exercise to clarify, or at least consider further the values of this phenomenon of knowledge in the modern technological world and the impact on society. Simply promoting ‘the advancement of regions’ does not direct us on the manner of the advancement and leaves little in the way of definitive direction for governments, institutions, agents, networks and actors participating within the society. At least knowledge is widely considered to be a public good and something to be supported and promoted, although theories and arguments on who is responsible for the management of knowledge and the divisions of knowledge abound, particularly as issues concerning knowledge are shifting from traditional specialized science policy to the centre stage of the modern politics of competitiveness in a globalized marketplace. (Sorbin and Vessuri) Not only is the free market driving outcomes from knowledge in nontraditional methods of research, knowledge itself is now being considered in a completely different perspective globally by societies made up of technological networks and new media. In this paper I aim to explore these elements of a modern knowledge based society and the value of knowledge to the economy specifically in a regional context and consider the values of the university and its role in this regional context. This paper comes from a nonacademic perspective and explores the value of regional universities and other considerations from the role of an actor in regional socio-economic development activity.

META CIVICA

“ Given the speed of change, governments and businesses throughout the world recognize that education and training are the keys to the future, and they emphasise the vital need to develop powers of creativity and innovation.” Ken Robinson.

To further the advancement of society and in particular those societies contained within regional catchments, it has been shown that the imperative element of success is higher education, and further that multipliers are applied when the knowledge generated is aligned with the regional vision and takes full consideration of regional needs, resources, assets and societal challenges. The product of this circumstance I have identified as Meta Civica, a state of higher order society in a qualitative progressive sense. (Brennan)



It could be argued that knowledge societies have been around since homo-erectus began huddling in groups. The ability to develop survival skills depended on sharing knowledge and more importantly it has been shown that the ability to adapt to changing circumstances has separated us from other animals and advanced our race. It is quite sobering to consider that the first illustrations by man on the Lascaux Caves in France were made by marking stone with stone, not dissimilar to my first lessons in primary school where we used slate and stone as our writing tools, which doesn't say much on the issue of adaptability over many thousands of years. However there is no less importance today on the ability to adapt to change, and the key to that adaptability is education and innovation.

To suggest that the knowledge age began with modern technology is to dismiss the great civilizations and great periods of advancement in history, however the term Knowledge Economy attempts to focus on the phenomena whereby knowledge makes up a significant, if not the majority of the economic fabric of a knowledge society. There is no better example than the region of Emilia-Romagna in Northern Italy that has generally and consistently outperformed all of Europe, despite not having valuable raw materials for traditional production. As Robert Putnam's study on Italy highlighted, the success of this region, centered in Bologna, came from the establishment of the first university in Europe in the 11th century. In the years that followed the opening of this highly respected institution over 4000 of the greatest minds in the known world moved to Bologna to study, laying a foundation for a knowledge based economy that still prospers today, and delivers an economic output through a relationship with over 8,000 business co-operatives. The output from higher education has been innovation and invention and from this came the ongoing organic ability for this region to constantly adapt to change. History is littered with great societies that have been educated and have even controlled the known world and yet as with the Egyptians and Romans and Russians and British, they have collapsed. Clearly then the outcome of education is to be knowledge, and as Schumacher proposed, the outcome of knowledge is to be wisdom, the application of which is the point of conversion of education into innovation and creativity, adaptability and the achievement of Meta Civica in a sustainable sense. Or as H G Wells put it "Civilization is a race between education and catastrophe" (after Jean Piaget)

Robinson directed us to the three main roles of universities within society, 1. Personal, that is to develop individual talents and sensibilities. 2. Cultural, to deepen understanding of the world. 3. Economic, to provide the skills required to earn a living and to be economically productive. I would add another role to this list, being an outcome of all three elements, and that is 4. Adaptation, the ability for society to adapt to global societal, economic and environmental change. He also sees it as essential to promote them equally and in relation to each other, and that the key to transforming the education system into a 21st Century process is an understanding of how they interconnect. And yet commentator after commentator recognizes that in many ways universities and policy are failing us on these simple roles, and even more so in regions. (Chatterton and Goddard, Goddard and Vallance, Robinson) Further complicating the situation today and distracting many from these core roles is the decline of modern socio economic structures globally, more so than at any other time in the modern world since the Great Depression. Therefore it is essential to not only review the value of universities and higher education in the knowledge age, but also to define the purpose and relevance of education within the age of constant rapid change.



“We have got to get this absolutely right; the issue is not technology, but what it means to be human, what kind of future we want for the human race.” John Abbott

Regional universities make an unquestionable and invaluable contribution to the regions they are embedded in, and much research has been done to define those benefits in real terms. From the number of students that remain in regions and contribute to the social capital, to the economic drivers of increased productivity that spill from greater capacity in the workforce, to multipliers of federal investment in universities in regions that flow into associated and non-associated sectors of society, and of course the innovation and business creation that comes from research. It seems that everyone from Alan Greenspan to the local council now ‘gets it’, that social capital, productivity growth, employment, and long term participation all come from an investment in education, and these outcomes are a product of creativity and innovation. However compartmentalizing the benefits may very well distract us from the big picture, or the real game and one that has been the challenge for all societies throughout time. As Schumacher put it, the purpose of knowledge is wisdom and the central concept of wisdom is permanence, (or as the modern world describes it, sustainability) and the achievement of ‘Peace and Permanence’.

“We often hear it said that we are entering the era of ‘the Learning Society’! Let us hope this is true. We still have to learn how to live peacefully, not only with our fellow men but also with nature and above all those Higher Powers which have made nature and have made us.” (Schumacher 1973)

Peace and Permanence is Schumacher’s global version of a regional Meta Civica, so what does that imply on universities? In the pursuit of Peace and Permanence he saw that...

“Wisdom demands a new orientation of science and technology towards the organic, the gentle, the non-violent, the elegant and beautiful” and the requisite of scientists and technologists is to develop methods and equipment that is ‘cheap enough so that it is accessible to virtually everyone, suitable for small scale application, and compatible for mans need for creativity.’

Indeed contained within this proposal is the natural advantage to regions. Previously restricted by lack of opportunity through limited access to raw materials, large scale manufacturing, ports and transport infrastructure and government attention within the political realm of centralised Federal and State Government policies, regions are now primed to advance along Schumacher’s vision which is unfolding rapidly courtesy of advancements in technology that actualize those requisites, without the burden of having to turn traditional political and corporate attention away from existing big business. In this rapidly changing landscape technology is the single most important and effective tool to deliver the science and innovation in an accessible form, suitable to small scale application which provides the platform for wisdom, creativity, productivity, further learning, prosperity, socio economic capacity, a balanced demographic, and ideally advancements toward the ultimate goals of regional self-reliance and peace and permanence.

Huxley described the purpose of inventors and engineers as “to provide ordinary people with the means of doing profitable and intrinsically significant work, of helping men and women to achieve independence from bosses so that they may become their own employers, or members of a self-governing co-operative group working for subsistence and a local market, resulting in a progressive decentralization of population of political and economic power.” The picture he paints reeks of the Emilia-Romagna model in Northern



Italy, with the Bologna university and its relationship with thousands of co-operative companies producing some of the highest order goods and finest foods in Europe, if not the world, without local raw materials. Huxley identified the key advantages as ‘ a more humanly satisfying life for more people, a greater measure of self-governing democracy and a blessed freedom from the silly adult education provided by the mass producers of consumer goods through the medium of advertising.’ A challenging thought when we consider the modern western world’s fixation on the material, fashionable, luxury and novelty, and the corporate sectors ability to drive change in these facets of consumerism at ever an increasing speed.

In regions there are significant numbers of the population desperate for the type of support described by Huxley and Schumacher and others. In the example of the Sunshine Coast Region in Queensland Australia, more than 60% of all business is home based micro scaled business. It has an area of 3,500 square kilometers and a population of 330,000 people and is the fastest growing region in Australia, expected to reach a population of half million within fifty years. Comparatively it is equal in size and population to the 177th largest country in the world. With a current Gross Regional Product of \$10 B it is the 141st largest country in the world. It has no large scale manufacturing and no significant raw materials, and yet it is primed to be a future global competitor because of the opportunities provided by technology and education. The challenge for this region, as with many others in Australia and internationally, is to have Federal and State Government policy and funding aligned with a decentralized commitment to higher education and technologies that are equally comparable to not only Australian cities and their heavily funded historically mature universities, but also international universities, research centre’s and technologies. Current statistics are disturbing. There are no regional universities in Australia ranked within the top 200 universities in the ‘4 International Colleges and Universities 2011 World University Web Ranking’ list, nor the ‘Times Higher Education World University Rankings 2011-12. Wollongong University is the only Australian regional university to make the top 20 universities in Australia, and only managed to be placed 45th in Asia. As Greenwood, Longley and others have bravely pointed out, significant actual change in policymaking needs to be made before regional universities can truly be the catalyst for regional cultural development and socio-economic health and wellbeing. Despite these circumstances and challenges Greenwood also points out that there examples of universities that serve their regions and localities well, and have gained much from these relationships, however the conditions by which this can develop require significant overall institutional change before public universities become important contributors universally. Indeed much reform seems focused on the safe haven of traditionalism in higher education, despite the rhetoric contained within policy and prospectuses. (Greenwood, Longley, Boyle & Kari, Rhoads, Erlich)

Regional Universities themselves have a challenge in recognising both their local and their international position and along with this, identifying the partnerships and forms of engagement required regionally which will advance the relationship with the community and the private corporate and business sector to identify shared visions and directions and adopt coursework that supports these directions. The OECD has argued that reuniting regions with their universities requires a better understanding of the drivers and barriers to engagement (OECD 2007) and other commentators are reflecting on the broadening of thinking around more multi- faceted frameworks that embrace dimensions such as social equity and cohesion, democratic participation environmental and economic sustainability as well as prosperity. (Morgan 2004; Moulaert and Nussbaumer, 2005; Pike2007; Hudson 2010; Goddard and Puukka 2008)



Greenwood identifies 'problem owners' in relation to the issues of regional university relevance and engagement. Among the 'economic problem owners' he sees are those internal to the university, including students, staff, faculty and administrators. External 'problem owners' include the providers of goods and services, construction contractors, lawyers and notaries, national overseers including education ministries and accounting. Also private sector and public sector consumers of students of graduates and research and taxpayers get a mention. The 'Social problem owners' include citizens and independent students and their families, local and regional communities affected by the university presence. Greenwood goes on to dissect the issues associated with these problem owners and pays particular attention to the academic and administrative interpretation of 'what is best for the student' and for the university, and from there goes to some length to point out that little in the political economy of public universities directly obligates them to their regional environment.

"In many senses, universities are within regions and communities but not of them." (Greenwood)

Specific regional benefits of becoming 'at one with the region' have been discussed at length (Longley, Schuller, Brennan) however the concept of advancements in regional self-reliance through these partnerships leading to a global maturity and competitiveness need to be considered more fully. Indeed the ultimate outcome from the shared innovation, creativity, knowledge and wisdom is an identifiable regional culture and ultimately socio-economic evolution.

As T.S. Elliott put it, "It is in fact a part of the function of education to help us to escape, not from our own time – for we are bound by that – but from the intellectual and emotional limitations of our time."

"WE'RE FROM THE UNIVERSITY AND WE'RE HERE TO HELP."

"I used to be an academic, it is another form of life." Ken Robinson

If the evidence is so overwhelming in regard to the value of regional universities to regions, the questions I ask myself regularly is "why is it so hard to advance the development of these institutions?" Whilst most academics recognize the value of partnerships between higher educational institutions, "why are universities so territorial?" The value of research from universities is well defined however "why do universities and education policy still grapple with the role of the university in a commercial partnership, or indeed the commercialization of innovation within the university itself". Ten years ago I had the great pleasure of working with a few friends to create what was then the first faculty of higher education in the Noosa region. It came about through a shared vision from three separate actors with three separate perspectives. From my perspective I wanted a socio-economic engine for a region with a fragile tourist based economy that was losing large numbers of its young people to the cities for education and for work. From Professor David Lynch's perspective he wanted to roll out a brand new education degree that he had written with his partner Professor Richard Smith. The degree was the Bachelor of Learning Management (BLM) and it was a replacement for the Bachelor of Education that had been the mainstay of teaching in Australia for generations. The third player was Peter Bradford, a visionary principle of the newly built Pomona High School. Peter saw the need for opportunities for his graduating students and he saw an opportunity to provide a facility to start the first campus of a university. Ten years later we can reflect on the successes from all perspectives. The Noosa Campus of C Q University is not only alive and well but is thriving and has planned growth to 6,000 students over the next ten years. Young people in the region have a choice and many are taking the local option from a range of regionally relevant courses. The



number of young people in the Noosa region has grown considerably, from making up only 7% of the population prior to the campus opening to now make up 12% of the population. To say that this journey is rewarding is an understatement. To say it was easy is an untruth. From a political perspective it required 'negotiations' with both the State and Federal Government, the university leaders and university board, the local government and as the campus developed the private property and development sector, just to enter into a 'trial' phase. The key performance indicator was a Federal Government sponsored independent review of the quality of the program, which as it turns out identified the BLM as the most effective education degree in Australia today. (ACER Report)

The purpose of this history lesson is to point out the complexities of developing a regional higher education institution at a time when it seems every 'man and their dog' understands the essential nature of these outcomes to regions in the rapidly advancing global knowledge age. The greater challenge follows, and that is to have the institutions engage within the region in a productive and meaningful way, align coursework and research with the regional vision and ultimately support the region in its globalized positioning. As Mala Singh puts it, "The idea of a socially engaged university belongs in a long line of moves to assign or appropriate the university for socially preferred purposes. Modernisation, national (regional) development and nation (region) building, manpower and human capital development, democratization and social transformation and economic growth and competitiveness have been among the imperatives that have underpinned the arguments for the university to transcend its inwardly defined core functions of teaching, learning, and service and become more socially embedded". The role of the academic has not traditionally required them to commit to reconceptualising not only the mission, values and functions of the university but also its familiar institutional forms and systemic locations and most importantly, its relationship with an enlarged number of external constituencies. Singh recognizes the difficulties of the task ahead and sees the only notion of engagement that is achievable and makes sense is a multidimensional strategy whose internal tensions and often unpredictable consequences require adroit steering and constant negotiation. (Singh 2006)

In other words the single most important facet of reconstructed institutions in their response to the impact of globalization on regions is adaptability, and the development of brave new institutions and academics who choose opportunism and dynamism as their curriculum. As Singh points out, the university is not the only player, but clearly is at the core of these imperatives, however to many 'outsiders' the grassy grove of Aristotle's academia looks more like a murky lake and academics appear to be funny fish indeed. As Goddard identified in 'obstacles and challenges faced by civic leaders working with universities', "many people outside universities may not understand their organizational structures and procedures well enough to be able to interact with them properly. In particular they may not be familiar with the terminology used by people within the university system. The language or jargon used by academics more generally can be a barrier to their effective external engagement." (Goddard et.al 2010)

To assist in the process of actualizing engagement strategies the Association of Commonwealth Universities (ACU) has initiated a 'Framework for Engagement,' a worldwide debate among some five hundred member universities on the issue of university engagement. This is a powerful reaffirmation of the broad social purposes of higher education in a context where narrow economic purposes are imposing their dominance. It is a call to universities to take on the accountability imperative proactively and preemptively, and move the debate about the future of higher education beyond defenses of failing models or critiques of developments in higher education that offer no feasible alternatives. (Coldstream and Bjarnason, 2003; Singh 2006) The document lays out a clear direction for all players and also recognizes that no mature institution is starting from a clean slate, or rather...a clean computer. It



implies strenuous, thoughtful, argumentative interaction with the non-university world in at least four spheres, 'setting universities aims, purposes and priorities; relating teaching and learning to the wider world; the back and forth dialogue between researchers and practitioners; and taking on wider responsibilities as neighbours and citizens.' The Consultation Document makes it painfully clear that applied knowledge, high-level skills for social and economic development, and constant responsiveness to societal needs and requests for new programs and services are now required of universities. Indeed it sees engagement as the *raison d'être* of the university.

If that is to be the case there is certainly a requirement for academics and researchers to review their roles and activities in their march towards relevance and civic engagement. The delivery of traditional education alone eliminates their responsibility to the institution to actively engage in meaningful partnerships with society as is now required. In the paradigm of a university as a communicative and interactive space for and with multiple stakeholders, one has to ensure that their role is not confined to being only the technically expert interpreters of the needs of other stakeholders. (Delanty, 2001, Singh, 2006)

Obviously, the other stakeholders in regional engagement have as much to do in the way of understanding the engagement partnership, its benefits and its potential, however this is a complex and separate consideration to this paper, and to some extent their commitment will be driven by policy at the political level, and profits at the commercial level, all of which will formulate the financial strategies of universities as they commit or are required to commit to the principles of socio-economic development through this engagement initiative. In line with this requirement, virtually every country in the world is moving to make university and industry links a core part of their innovations systems, and the notion of a triple helix representing the relationship between governments, universities and the business community has wide spread application. (Etzkowitz 2002, Etzkowitz and Leydesdorf 2000) Having said that it is worth reflecting on the situation where there are currently many conversations underway in regard to how universities will behave as partners in the commercial world and how they will fund the expansive role of universities in the knowledge age whilst maintaining their integrity as researchers. Historically universities have provided little in the way of patenting, licensing and commercialization, however there is a massive change in attitude and policy underway in developing countries like China and India where national innovation policy and systems have been constructed embracing technology as the key to development, and with it the utility of research oriented universities as a means of augmenting the innovation capability of the economy. (Sigurdson 2005) This change in direction towards applied research is not unlike the redirection of American universities during the second World War. The extension of that scenario is the consideration of accessibility to the engaging university. Barnett claims that the corporate sector will have greater leveraging power over others in their vigorous approach to engagement with research, and that the universities will be persuaded to structure themselves in favour of activities likely to have 'exchange value' in the knowledge economy. He goes on to state that through this approach there is hardly likely to be a level playing field in stakeholder power and influence. (Barnett 2003) However to do so is to dismiss the single most essential element of all, and that is technology as not only a vital tool of the knowledge economy, innovation and development, but also as the great leveler of the playing fields of engagement.

THE RULES OF ENGAGEMENTTHERE ARE NO RULES.

“Creative minds have always been known to survive any kind of bad training.” Anna Freud



As we have seen it is essential to the advancement of emerging regional knowledge based societies that academic productivity and research prospers in order to realize regional visions and prosperity, and ultimately a preferred culture. The transfer of this knowledge to the 'real world' is through bridging and bonding initiatives exercised by numerous actors within and external to the region, and as societies come to the realization that there are other sources of knowledge than the traditional research institute and higher education institutions (murky lakes full of funny fish), universities are now under considerable pressure to fully explore the opportunities contained within advancements in technology for the express purpose of meaningful engagement. Not to do so will not only restrict the ability to partner with society, but may well mean the death of the regional institution in the very competitive world of the education industry. In the age of 'Creative Capitalism' the university has become a critical component in the provision of 'Talent, Knowledge and Innovation.' (Florida 2005) Considering the limited outputs from the licensing and commercialization of research, the main product of universities is still knowledgeable, innovative and talented people who can apply themselves to societal needs and futures considerations. The engaged regional university's multi-faceted role in delivering these elements can according to Chatterton and Goddard (2000) be encapsulated in a single priority, 'meeting the needs of a more diverse client population.' Among these needs they recognize relatively new demands including flexible structures for lifelong learning, created by rapidly changing skill demands; more locally based education as public maintenance support for students decline; greater links between research and industry; and more engagement with the end users of research. In a knowledge based creative capitalist society, technology is not only the tool that transfers the knowledge to the end user, it is the product and service 'of' the end user in what has been described as a 'learning economy' or 'learning region.' (Lundvall 1992; Lundvall and Johnson 1994) The learning economy and learning society are recognized by the success of individuals, firms and regions reflects the capability to learn, where change is rapid and old skills become obsolete, and where learning includes the building of competencies rather than just access to information, where learning is going on in all parts of society and job creation is in the knowledge intensive sectors. Again there is a natural advantage for regions as Chatterton and Goddard point out, network knowledge is highly dependent on interpersonal relations and therefore be developed most readily within a particular region. They further recognize that the link between learning regions, the information society and information communication technologies is mutually beneficial and self-reinforcing. As forward looking as this research was in 2000 it hardly prepared society and leaders of society for the speed of change in this direction, leading us into what is now being described as the next phenomena, the 'virtual economy' and the 'virtual society.'

Regional universities somehow need to take stock of the next game, and take advantage of it for the advancement not only of the institution but the region itself. The next game is a technologically based virtual learning and governing society, that is if we are to believe the statistics and trends going on already today, and it is hard not to. Social advancement is going to be generated from social media. The globalization of regions becomes a reality immediately within virtual and new media communities. Social media is now shifting societies and economies more seismically than the industrial revolution, and is driving a fundamental shift in the way we communicate. Clearly this needs to be a major consideration when progressing the transfer of knowledge from universities to society. As Eric Qualman said, "We don't have a choice on whether we do social media, the question is how well we do it." It took radio 38 years to attract 50 million viewers, television 13 years, the internet 4 years and the I-Pod 3 years. Facebook had 200 million users in 12 months. If Facebook was a country it would be the third largest country in the world. Facebook surpasses Google for traffic in the United States and 50% of all mobile internet traffic in the United Kingdom is for Facebook. A U.S. Department of Education study revealed



that online students outperformed those receiving face to face instruction. Eighty percent of U.S. companies use social media such as Linked-in to recruit staff.

When it comes to lifelong learning in learning societies it is interesting to see the fastest growing segment of users of Facebook is women aged from 55 to 65 years old. Wikipedia has over 15 million articles and studies show that it is as accurate as Encyclopedia Britannica, and 78% of these articles are non-English. There are over 200 million blogs and 78% of consumers trust peer reviews posted on blogs, whilst only 14% trust traditional advertisements. Some universities have stopped distributing e-mail accounts and are using e-Readers, I-Pads and Tablets. ('Social Media Revolution'. You-tube)

Social media is now a fundamental system of communication and sociologists and socio economists are struggling to keep up with the advancement of social networks during this period of unprecedented change. Research in to other systems such as mathematical, biological and metabolist, are being carried out in an effort to get a greater understanding of the relevance of these changes in society. (Fell 1997) Hollingsworth and Muller argue that these systems are ushering in a new scientific epistemology. More recently studies into gene networks have progressed, fundamentally because these networks do not act directly and physically with each other, but more abstractly and in line with social network activities. (Greenspan)

Edelman proposes that social networks are mediated by language and are therefore inescapably abstract, and further that the requirement for physical interaction may have been a limitation at previous times in history, but now that we have the vast expansive and interconnected virtual world such limitations on society are no longer relevant. Notwotny reflects on basic human selection processes and observes that the scientific attractiveness of issues and problems is based on their 'technological sweetness' or sexiness, and this is linked to the wish to know. There can be no better issue to focus on than the development of society and what could possibly be of more value to a region than an institution that progresses these studies in the form of interdisciplinary networks, merging socio-economics with new theories on epistemology.

Jane McGonigal introduces the proposition that the future of engagement, learning and governance is embedded in the electronic gaming phenomena. Her studies show that the skills most admired and most effective in the gaming community are the same skills required in real world problem solving and real world development. These skills include establishing clear goals, optimism and enthusiasm, extraordinary focus, social sharing and borrowing, constant feedback that is subjective rather than objective and is constructive by nature. McGonigal describes the real possibility of converting the fantasy and unreal gaming world into real world challenges that have a technological sweetness to millions of participants worldwide who have the desired skills to achieve real outcomes through mass co-operation. As an indication of the resource available today, there are currently 3 billion hours of gaming played online per week, and the average person born today will spend 10,000 hours playing online games by the time they reach twenty one. This co-incidentally equates to the amount of time they are currently expected to put to education until high school graduation.

In ten years from now there will be 1.5 billion computer gamers worldwide who according to McGonigal carry the skills of mass collaboration, cognitive energy, 'urgent optimism,' extraordinary focus, no fear of failure, an understanding of clear goals, social sharing and borrowing, constant subjective and constructive feedback, use of real time information and who make up a society that has the second largest population in the world, and who could be challenged with the advancement of society. A society where there are no physical boundaries other than technological, is accessible, is adaptable, and one where the



social fabric is developed through trust and has stronger social networks than any community on the planet. A society McGonigal describes as being made up of super empowered hopeful individuals who focus on issues of global scale. Gaming economies are already entering real world economies whereby trading and auctions of game world assets are being paid for with real world currencies. When one considers that game world economies are worth billions of dollars, (in 2001 'Everquest's Gross National product was determined at \$2,266 USD per capita which makes it comparable to the Russia or Bulgarian economy) it is not unreasonable to see the transfer of economic skills from game to real, particularly as research shows that these games are not only inhabited by geeks, but by CEO's academics, housewives and the general populace. Business leaders, politicians and educators are paying attention to the possibilities offered by these spaces to reach a new generation of student, constituent and leader.

The million dollar question is 'what value is the regional university within this extraordinary technological and societal change?'

CONCLUSION

"From an economic point of view, creativity is a form of capital – call it creative capital" Richard Florida

Regional universities are in an unprecedented position of opportunity. As regions progress from traditional economic platforms to new realms of creative economies through interaction and engagement, regions can position themselves as global competitors in the knowledge age. Regional universities are faced with extraordinary challenges around funding and policy development that keeps pace with the need for constant rapid change, however the answers to the challenges may well be within the new realm itself. The Civic University is essential, and education and society will become inextricably linked in prosperous regions. Indeed it will become policy in many countries in the advancing world as more and more recognition is given to the importance of localized research and the outpouring of innovation, creativity and wisdom. The value of such an institution is immeasurable, and clearly not confined to simple economic considerations.

The new Alto university in Helsinki, Finland, the product of a merger of three established universities, sees their objectives and values as "To be a world class university combining art, technology and industrial design to stimulate innovation...to educate responsible and broad minded experts with a wide perspective to act as future visionaries in the society...an institution with passion to explore boundaries, freedom to be creative, courage to influence and excel, a duty to care and inspire and with high ethics, openness and equality" (Pursula, 2010)

Regional universities anywhere could do well to aspire to be such a civic university and through such a commitment make a most valuable contribution to any regional society. Such institutions would not only mobilise their research around grand challenges but also organize their teaching with a view to producing future citizens whose decisions as consumers, workers or entrepreneurs will bring about societal innovation in the broader public interest. (Goddard and Valance 2011)



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