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REACHING THE DIGITALLY DISADVANTAGED. AUSTRALIA'S EDUCATIONAL NEGLECT OF INDIGENOUS LEARNERS IN THE INFORMATION AGE.

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ABSTRACT

In a country that boasts one of the highest computer and technological penetration rates in the world, Indigenous Australians still suffer significantly lower levels of access, participation, outcomes and educational success. With the growth of the Information age and the need for technological skills there is a concern that new technology will further increase the ongoing disadvantaged position of Indigenous learners in today's educational environment. Are Indigenous learners destined to assume the same disadvantaged position in a new information society that they have been forced into in the past? Is information technology a solution to bridge this educational divide? This paper explores current educational positions on technology in education from the mainstream and analyses the lack of recognition of Indigenous people in this equation.

Introduction

"At September 2000, 57% of Australians students accessed the Internet at school. Australia ranked seventh out of the 16 surveyed countries ahead of countries such as South Korea, Japan, Germany and France."

The National Office for the Information Economy, (2000)

The Information economy is global, breaking down national, state and territory boundaries in education, training, recreation and work. It is challenging the ways we have done things in the past and offers opportunities to create better ways of doing things. We must maintain the momentum to retain our place in the world.

As a well-educated and technologically advanced nation, Australia is well placed to take advantage of the benefits of the information economy. DETYA (2000)

Ignoring the existence of a particular racial group is the most subtle, neutral yet potent form of racism (Langton, 1993). In Australia's history, from land ownership through to education, justice, health and employment there have been many ways in which White Australia has cast a blind eye towards the inclusion of Indigenous people. Particularly within Australia's education system, it was not until the late 1980s that a formal national Indigenous education policy was passed in parliament (NAEP, 1989). However this is in no way irregular. As some would know, full citizenship rights were not granted to Aboriginal people and Torres Strait Islander people until after the 1967 referendum. Some 66 years after Australia became a nation. Also, there can be little dispute against the overwhelming evidence of deprivation experienced by Indigenous Australians in health, education and the economy both historically and contemporarily. The Royal Commission into Aboriginal Deaths in Custody (1992) and the Human Rights and Equal Opportunity Commission "*Bringing them Home*" report (1998) on the Stolen Generation are clear indicators of the position of Australia's first people in contemporary Australian society. With such a clear record of neglect it is not surprising that policy and strategies to enable Indigenous Australians to take part in information technology directions for the new millennium are deficient as well. The focal point of this paper is embedded in the following passage from the Federal Government's report "*Information for the knowledge age*" (DETYA, 2000) which

attempts to frame the Information and Communication Technology (ICT) skills to teach our children for the knowledge society. In sweeping statements on the path ahead, the noticeable lack of attention to what the report describes as “*Information and Communication Technology have-nots*” is a stark reminder that some will miss out on the immediate benefits of Information and Communication Technologies. As educators, what will be our role to prevent this from happening? More importantly, how will we cater for the ‘have-nots’?”

Technological change is transforming the way we live and work. It is vital that all Australians have opportunities to develop the knowledge, skills and understanding to prosper in a high-technology world. Our education and training providers will play a pivotal role in supporting all members of our community to adjust to the new environment and thereby contribute to the development of a vibrant Australian economy, society and culture in the knowledge society.

(Kemp, 2000)

Given this, I want to argue that current Government Information and Communication Technology (ICT) education policy, which is designed to empower Australians with the skills and strategies to compete favourably in the global information economy, systematically ignores the equitable needs of Indigenous learners. If left unaddressed, Indigenous learners will be subjugated once more to the bottom rung. However this time they will gather on the bottom of the information economy ladder. In addition, if educators do not address the absence of Indigenous people in IT related educational policy then we will be contributing to this situation. If we are not part of the solution then we are part of the problem. For if teachers are not trained to empower Indigenous students with the functional ICT skills to survive in the 21st Century then we will be forced to deal with the consequences. Australia must prevent

itself from developing a computer illiterate underclass amongst its Indigenous community. Only then should our education system suggest that we will “*demonstrate our commitment and our progress in ensuring that Australia’s first inhabitants can participate fully in our democratic society*” Kemp, (1999).

Why is there a need to recognise Indigenous people specifically in general policy?

Gale’s (1998) examination of Australian Indigenous Policies from 1964 to 1996 suggests that there have been a number of shifts in policy during that time. Each shift revealed various underlying beliefs of each government regarding the primary needs of Indigenous peoples. In particular, Gale asserted that past and current Indigenous education policies remain ...*based on a discourse on “Aboriginal education “from the 1960s which was founded on racist and romantic representations of Aboriginality* (Gale, 1998). It may be said that national policy should not consider racial, cultural, and economic groups and that good policy is created so as to be all-inclusive. Also, that policy should be broad enough to empower people regardless of ethnic, gender or cultural background. I would agree without equivocation if educational opportunities and outcomes were similar across Australian states and territories. If they were, there would be no need to have more specific educational policies such as the National Aboriginal and Torres Strait Islander Education Policy. However, the lack of equitable outcomes for Indigenous students in mainstream educational systems increases the need for specific policies for Indigenous education. In 1996, the apparent retention rate for year 12 Indigenous students was only 29.2% in comparison to 72.4% for non-Indigenous students (MCEETYA, 1996). The trends to create alternative policies of inclusion are evident across Australian society, in education, training and especially employment. Policies of equal opportunity are means which the employment industries have instituted in order to

provide groups - often ignored due to racism - an opportunity to participate in the workforce. Rhonda Roberts, an Aboriginal media personality, highlighted the hypocrisy of systemic discrimination in our society. While opposing the very existence of racism, our workplaces employ equal opportunity standards, and continue to support measures taken to overcome discrimination.

The whole system in this country is like that: so racist that the only way we can get in anywhere is via identified Aboriginal positions. The creation of identified Aboriginal positions is itself, an admission of the racism in the system; and, let's face it, in the private sector where the identified Aboriginal positions system is not compulsory, Aboriginals can't get jobs." (Sykes, 1994, p. 66-67)

These same compulsory measures are evident in Australia's Indigenous education system. After 200 years of Federal, State and Territorial education policies, the overwhelming evidence that successful Indigenous educational outcomes were not attained through the application of non-Indigenous education policies caused the introduction of the original Aboriginal Taskforce. As the needs of Indigenous learners changed over time so then did the policy. Indigenous education policy has undergone dramatic changes since European invasion. During the past 15 years the direction of policy and direction predominantly controlled by Indigenous people. This is according to government policy. From the Aboriginal Taskforce of the 1980s to the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) Taskforce on Indigenous Education, the resulting policies and strategies have adapted in order to improve Indigenous education outcomes. This is not to say that Indigenous policy has been wasted or unproductive, more that Indigenous people are still under the influence of broad educational policies and the neo-colonial system that encompass them. If national education policy does not recognise the

presence of the Indigenous other then the common solution is to create another more specific policy for that group. The National Aboriginal and Torres Strait Islander Education Policy and its ongoing transformations (ie. the National Review and MCEETYA) are excellent examples of this process. Rather than casually await the development of an Indigenous Information and Communication Technology related policy to be delivered we should demand that Indigenous people be given concentrated attention regarding skills in particular. The latter would be favourable but in no way easier.

What is in store for Indigenous people in Australia's IT future?

As stated earlier, Australia is recognised as one of the leading countries in the area of access and participation in new media and the current information society. In order to maintain this current position as Information and Communication Technology world leaders, the Australian government has attempted to develop premeditated education directives for our young learners. Since the 1980s Australia has recognised the need to strategically improve new technology skills in response to the growing global information dependant economic revolution. The federal government, through its establishment of the National Office of Information Economy (NOIE), reported that Australia is one of the world's leading populations accessing the Internet with 41% as of May 2000 (National Office for the Information Economy, 2000). It also included that Australian women online (45%) compared favourably with other countries such as Sweden (44%), the United Kingdom (36%) and France (33%) (NOIE, 2000). Again, as expected, there is an obvious lack of cultural identifiers in the report. Overall, the report illustrates the significant presence Australia has in a global economic village and our commercial viability within that environment. However the report fails to recognise the lack of access to technology

and the absence of telecommunication infrastructure for some Australians, particularly in business and commerce.

With communication and information technologies currently converging on all forms of work, study and play, it is critical for Indigenous people to become skilled in these contemporary and future skills. In 1997, the Department of Industry, Science and Tourism report on Australian information technology skills entitled *The Global Information Economy: The Way Ahead* states,

"In the information industries more than most other sectors of the economy, the core competitive advantage rests in the skills of people."

The report went on to emphasize that Australia needed to urgently address the shortage of high skilled ICT personnel or face a trade deficit of \$46 billion in the Information technology industry if we continue along our current path (Information Industries Taskforce, 1997). It also illustrated that other Australian industries were highly dependant on Information Technology related skills. Additionally the Australian Bureau of Statistics report *Business Use of Information Technology* found that 99% of businesses that employed over 100 staff had computers as opposed to 46% of businesses with less than 30 employees (ABS, 1997). Therefore with such concerns, the education system needs to raise its emphasis on information and communication technology related skills in order for Australia to survive in the new century. Hence the release of the action plan *"Learning for the Knowledge Society"* (DETYA, 2000) by the Federal Government as a strategic attempt to *"deliver the skills and education that Australia needs to participate in the information society."* (Strategic Framework for the Information economy, 1998).

The report is an action plan for all education and training sectors. It attempts to promote ways in which all Australians will be trained to cope with the information

age. The only inclusion of Indigenous people is that they *"are currently disadvantaged may be at risk of becoming further disadvantaged"* and therefore targeted as the school's responsibility to provide equitable opportunities. (DETYA, 2000)

In enabling all students to develop skills that will sustain lifelong learning and active citizenship, schools have a particular role to play in ameliorating educational disadvantage. Many students, including large numbers of indigenous students, do not have a technology-rich environment at home. Such students and others, such as those with learning difficulties and students who live in remote areas, need targeted measures. Because of the particular importance of technological skills in the information economy, schools must actively promote equity of access to such skills. (DETYA, 2000)

As with many strategies from the Government, identifying the problem does not constitute the development of strategies to prevent a problem. The education and training action plan for the information economy clearly understands that Indigenous and other sections of society will be possible casualties in the information age and that the only way to prevent it is to actively promote equity of access to such skills.

A national sample of the information technology skills of Australian school children entitled *"Real time Computers, Change and Schooling"* indicated that Indigenous students (64%) measured only slightly behind non-Indigenous students (68%) in a test of 13 technology related skills. Although this could be considered as insignificant, the research highlighted that Indigenous students and other children who came predominately from low income families and rural or geographically isolated locations were expected to gain these skills at school or a non-home environment. (DETYA, 1999)

Significantly, Indigenous children had access to computers while at school. According to Kemp (1999) Indigenous students without a functional level of literacy not only were less likely to continue their education beyond compulsory years, but would not enable them to find secure employment, thus rendering them almost completely reliant on others for considerable aspects of their lives.

How are Indigenous people using new technology today

Indigenous Australians have always been wrongly considered to lack the ability or understanding to implement information technology into their daily work and family existence. In order to obtain new forms of technology, whether they be entertainment oriented (televisions, video) or computer related (computers, CD-Rom) a major impediment to access is one's economic state. In the absence of statistical data identifying Indigenous families specifically, we are left to postulate from two sources: The National Aboriginal and Torres Strait Islander Survey and the Australian Bureau of Statistics. According to the National Aboriginal and Torres Strait Islander Survey in 1994, 59% of Indigenous Australians were earning under \$12,000 per annum and only 11% were earning over \$25,000 (NATSIS, 1994). The Australian Bureau of Statistics states that of the Australians in this earning bracket, regardless of culture, 37% would have access to computers and 51% with Internet access (ABS, 2000). In many ways the Australian Bureau of Statistics does not recognise or identify cultural barriers, economic or class issues in any of the surveys conducted over the two years collecting this data. Therefore to assume Indigenous people are at the same level of access would be erroneous. Obviously more focussed data collection is needed to confirm the specific position of Indigenous people in relation to computer and Internet access. More importantly, the focus of the investigation should be national instead of isolated. Too often investigations of

Indigenous conditions are funded to the point of gathering a snapshot of Indigenous experience while ignoring the holistic picture. Obviously funding is the pragmatic cause of these restrictions. For example, recently the Department of Communications, Information Technology and the Arts conducted a study of ICT access in regional, rural and remote Indigenous communities. By excluding the conditions of urban Indigenous peoples the study makes broad assumptions from the start: First, that Indigenous people do not inhabit urban locations; and secondly that all Indigenous peoples or the majority of them are living in rural and remote locations.

In the absence of strategic direction many Indigenous groups have challenged the stereotypes often portrayed in the media. Encountering, or more directly, resisting these representations is a daily situation for many Indigenous people in a subversive racist society such as Australia. Equally admirable is the way we confront this by doing what we are told we are incapable of doing. I once was told of an advertisement for a communication system in the USA that said, "If Australian Aborigines in the Desert can use it, then so can you!" This blatant suggestion of ignorance of a supposedly simplistic, techno-illiterate desert-dwelling audience to master technology was not only a means to hyper sell the system's ease of use, it cuts to the core of current perceptions of racist thinking in technology: Let's make technology a watered down media that will attract the lowly techno-literate. Despite this perceived notion of failure, many Indigenous groups within Australia have mastered new technology in various formats. Indigenous Australians have a strong history of developing creative dynamic ways to use radio, television and analogue/ digital technologies. These forms of mastery range from the Broadcast Radio for Aboriginal Communities Scheme across regional, remote and isolated Australia, to the creative use of video production and video conferencing at the Tanami Network in the Tanami Desert.

Funded federally through departments such as DOCITA (Department of Communications, Information Technology and the Arts) or ATSIC (Aboriginal and Torres Strait Islander Commission) these innovations have been highly successful. In teacher education courses such as the Remote Area Tertiary Education Project (RATEP), highly integrated forms of media are used to provide pre-service teacher education to Indigenous students in regional, remote and isolated areas (Jose, 1999).

As previously stated, successful use of technology with Indigenous learners has been achieved with varied means ranging from development of resources such as CD-Rom and Internet based sites to technological delivery tools for distributing materials and courses. In the case of RATEP and AnTEP, Indigenous people were using technology as a means to learn earlier than most others in Australia. Although successful use of technology is evident amongst us, there is a long way to go, especially when we have not invested enough into the question of where are we now educationally? Have we yet addressed the quality of education and equity issues in formal education in general? Before venturing down the path towards computer use by Indigenous students should we first establish what level of educational success have been attained with other forms of delivery?

However, herein lies a dilemma. At what cost do we reflect and evaluate our position on equity achievement? If Indigenous Australians do not participate in the global economy and acquire the required technological skills deemed essential for the future then we will fall into a similar position of those in other developed countries: An underclass classified in DETYA's ICT policy instrument as the "have-nots".

At present we sit on the crest of a technological wave. Whether we ride or crash is dependent on many factors. The disparity of equity in the use of technology amongst disadvantaged and advantaged

groups are a growing concern to most national governments around the world except our own. This concern is also shared by the World Bank and UNESCO. In February 2000, the World Bank and Softbank (a Japan-based global Internet company) invested (US) \$200 Million into accelerating "the inclusion of the developing countries in the information revolution" (Softbank, 2000). The annual United Nations Human Development Report (1999) illustrated the growth of wealth amongst a select few globally who benefited from the Information Technology and the use of the Internet.

The Internet is contributing to an ever-widening gap between rich and poor which has now reached "grotesque" proportions. The world is rushing headlong into greater integration driven mostly by a philosophy of market profitability and economic efficiency. We must bring human development and social protection into the equation. Precaution is needed in exploring new applications, no matter how great their commercial promise. Only then will the rules of globalisation allow technological breakthroughs to be steered to the needs of people, not just profits.

Richard Jolly (1999 76)

However in silence to recognising these concerns Governments will continue to spout the rhetoric that competing on the global economic stage is more important. Of all the government's comments, very little is clear on the recognition of the digital dilemma that exists in Indigenous access to Technology. It should be noted that the global economy in the past nine years decreased the economic stability of 80 countries and that the assets of the 200 richest people exceed the combined income of 41% of the world's total population. This disparity between the rich and poor since the development of the Internet continues to grow daily (United Nations Human Development Report, 1999). So no doubt it is expected that the government would choose to invest energy into this facet of technology. However as stated, a preventative strategy is required if we are

to address the possible level of techno-poor Australians in the future, and possibly the high number of those left behind being our own people.

Conclusion: Questions to consider

Over the past ten years, have we accurately addressed social equity issues in Indigenous education in general before considering the use of the new digital environments? In many ways information and communication technologies are envisaged to be the great panacea for Indigenous education and that if access is achieved we should then witness strikingly improved outcomes for Indigenous learners. It is important to remember that tertiary education is accessible in many forms, such as on-campus, external print or multimedia based and online. However only minimal success has been achieved to date. We must have a strategy to implement the use of technology in an Indigenous education context with real measures of success. These measures require adequate involvement of Indigenous people to control and determine outcome expectations. This will not happen if strategies put forward by government continue to subjectify Indigenous people as victims and limit their responsibility to a wait and see policy.

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