THE KNOWLEDGE BASED SOCIETY AND STRUCTURAL UNEMPLOYMENT: MUTUALLY EXCLUSIVE CONCEPTS?

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Abstract

Structural unemployment is a reality in all societies. There are 191,8 million people who are unemployed worldwide. Structural unemployment has profound implications for those affected. Increased marginalization of the affected is an increasingly common occurrence. Various estimates exist for unemployment statistics in South Africa: SSA claims a percentage of 26%, while COSATU projects a percentage of 47%. The true figure is most probably between these projections. In order to assess biographical data from the unemployed, a total of 198 individuals were interviewed. Amongst others, it emerged that 91% had given up searching for employment. Further, it emerged that 89% had never used a computer, and that 23% did not know what a computer is. Increased exposure to computers could alter the lives of those marginalized from the knowledge based society. It is proposed that it is Government's responsibility to provide access to information technology. Dedicated IT workstations in very poor, as well as isolated rural areas, would not only result in job creation, but would enable the unemployed and the poor to substantially shift the economic focus of their lives. Access to broadband internet would allow opportunities for individuals to contribute to economic activity. Narrowing the digital divide is not only an economic necessity; it is also a moral imperative.

Keywords: Knowledge based society, structural unemployment, information and communication technologies, and globalization.

1. Introduction

The world of work has moved through definitive contextual shifts over the last 50 000 years. During the Old Stone Age there were no formalized work systems. Instead, the world population of approximately 5 million people subsisted through hunting. Approximately 10 000 years ago, the Agricultural Revolution occurred, and this led to an increase in the magnitude of human numbers. The Industrial Revolution, which took place in the eighteenth century, was the next major substantial shift in the nature of work patterns- steam irrevocably altered the world of work. During the second half of the nineteenth century, the Second Industrial Revolution took place, and as a consequence, oil and electricity succeeded in turning man and horse into less marketable commodities. By the end of the Second World War, computers and numerically controlled machines heralded in the Third Industrial Revolution, and this was a precursor to the Information Revolution, where Globalization and Internationalization are the hallmarks of the modern world of work.

The present day scenario is characterized by wide opposites on the wealth continuum. The three richest people in the world (Bill Gates, Warren Buffett and Carlos Slim Helu) have more money than the 48 poorest countries. The 15 richest people have more money than the total GDP of Sub-Saharan Africa. On the other end of this continuum, 191,8 million people are unemployed worldwide, according to the International Labour Organization Global Employment Trends Brief. Further, of the 2,8 billion workers in the world, 1,4 billion subsist on incomes which are not adequate to lift themselves and their families above the $2 a day poverty line. Of these, 520 million exist in extreme poverty on less than $1 a day. This very real wealth gap is steadily widening, and has fundamental implications for all humanity. The wealth gap can be equated to the concept of the so-called digital divide, as the primary driver of economic activity today is the computer. The question arises as to whether this digital divide can be breached, or whether information technology will continually drive a monetary wedge ever deeper between the wealthy and the disposed of this world.

2. The Problem: Structural Unemployment

The Business Education Institute for Fiscal Studies states that structural unemployment develops when the inherent structure of an industry shifts as a result of some event or occurrence. The extent and nature of structural unemployment are determined by a range of factors, amongst which: mobility of labour; the pace of change in the economy, and the regional structure of industry. It will be recognized from the above that, with the exception of the Agricultural Revolution, all the subsequent revolutions were directly and linearly linked to escalating international structural unemployment. An alteration to this reality is not easy to bring about – at the very least a complex program of intervention is indicated.

The knowledge-based society (kbs):

The KBS revolves around the introduction and rapid dissemination of information and communication. The World Wide Web, e-mail, telephones, fiber optics, wi-fi (wireless fidelity) and satellites are revolutionizing the manner in which societies exist, interact, conduct their

business and compete in international markets. This allows societies and individuals to access, adapt, produce and apply information more easily and much more rapidly than in the past. Information and Communication Technologies (ICTs) allow unrestricted access to information of all types, which could inter alia allow access to a range of realities. Over the past 200 years, neo-classical economists have recognized only two primary production factors, i.e. capital and labour. This has altered to a scenario where information and knowledge are substituting capital and energy as primary wealth-creating factors. Further, technological developments have enabled knowledge to become a primary wealth-generating factor. Due to increased accessibility and mobility of information, expertise and knowledge can be transferred to any part of the globe at the touch of a button. The brave new world of work revolves around an information society in a knowledge economy, where knowledge management has been adopted as the most desirable economic skill.

It is therefore apparent that ICT is creating a host of new job opportunities, and will continue to expand in relation to the development of novel technologies. Conversely, it has also led to the birth of a new form of illiteracy for those without access to information technology or without the ability to use it. Paradoxically, the skills and knowledge which are required to make a tangible impact on the new economy are not accessible to the poor, and the result is escalating marginalization and exclusion from mainstream economic activity, enforcing a basic subsistence lifestyle. Ostracism through non-knowledge is a sociological reality, with definitive ramifications for humanity.

Globalisation and South Africa – The Problem

In a briefing paper, De Wet (2002) describes globalization as follow:

- A set of economic processes in which production, marketing and investment are

integrated across borders and between firms. This is underpinned by neo-liberalism as a guiding ideology, and is designed to improve standards of living for everyone. It is a socio-political process - in this sense, it is ironic to note that COSATU, the mouthpiece of the South African workers, elected to have t-shirts for a mass rally manufactured in Indonesia, where it was produced much cheaper than locally.

- It a powerful force for domestic reform, and as a result, distinct pressures is

exerted on national- and local governance. With the above as background, note should be taken of the GEAR program, which was initiated by the post-apartheid government in South Africa. The acronym stands for growth, employment and redistribution. The program was based on a macro-economic policy which desired job growth and improved productivity in a country which is recognized as possessing a labour force with relatively low skill levels. When GEAR is considered vis-à-vis globalization, it is apparent that several dichotomies emerge. Further, the South African government's RDP (Reconstruction and Development Program) merits attention. This program was designed to substantively alter the standard of living of those who were disposed under the previous regime. Thus, on the one hand, the Government was (and is) committed to a radical process of social/economic re-engineering, but is

on the other hand confronted with the strident demands of globalization.

Unemployment in South Africa is a major problem and a fearful scourge in society. Some of the problems facing the South African government are the spiraling unemployment rate, exacerbated by labour market rigidities due to the current legislative framework, rationalization and re-engineering in the wake of increasing international competition, the lack of wage moderation, as well as the influence of work stoppages and industrial action (Mahadea, 2003:21).

According to Statistics South Africa (Labour Force Survey, March 2004) unemployment is at present 27,8% of the workforce. This figure is misleading, as individuals who do not consult any further with the Department of Labour's offices, are not officially considered to be unemployed. COSATU estimates unemployment to be in the region of 47%. The real figure probably pitches between these two estimates.

Unemployment in South Africa has a gender dimension: a significantly higher proportion of females are unemployed; it has a regional dimension, where a significant number of the unemployed are rural; it has a significant age dimension: 71% are under 35 years of age; it has an educational dimension, where there is a linear link between level of education and unemployment, and it has a racial dimension, where the predominantly unemployed group is Black (Labour Force Survey, March 2004).

The present author is at present conducting a longitudinal study amongst the unemployed in South Africa. He has been conducting interviews with a random sample of 198 individuals who begs for a livelihood. Amongst the findings, it emerged that 91% had given up in their search for gainful employment. Further, it emerged that 89% had never used a computer, while 23% did not know what a computer is.

3. The Solution

Increased exposure to ICT would alter the lives of those marginalized from the KBS. It is proposed that it is government's responsibility to provide access to ICT. Dedicated IT workstations in very poor, as well as isolated rural areas, would not only result in job creation, but would enable the unemployed and the poor to substantively alter the economic focus of their lives. Access to ICT would allow opportunities for individuals to contribute to economic activity, and not just to remain peripheral consumers and non-role-players. The title of this paper posed the question as to whether the knowledge based society and structural unemployment are mutually exclusive concepts – the answer is a resonating NO. In order to circumnavigate the problems as discussed above, where in a country of 48 million people only 6% have access to ICT, the following is proposed:

Government should initiate a minimum of 1000 workstations in townships and rural areas. These workstations should each have a minimum of 20 computers, which should allow for 24 hour broadband internet access, email and printing facilities. Such workstations should be staffed by 3 trainers on a rotational shift basis, who will be responsible for training users, as well as assisting with technical queries. In addition, security should be provided for each workstation, in the form of three guards on a rotational eight hour shift basis.

Without considering the issue of connectivity, the capital expenditure would be negligible:

- 20 000 computers @ $500 each = $1000 000; salary 3 000 trainers @ $12 000 p.a. each

= $36 000000; salary 6 000 security personnel @ $6 000 p.a. each = $36 000000; construction and furnishing of 1 000 workstations = $7 000000.

The total expenditure would therefore amount to $89 million, whereas in subsequent years, subject to breakages and depreciation of fixed assets, the expenditure would be $72 million. This amount is negligible if it is compared to the $1 billion which South Africa recently spent on three submarines. It should be borne in mind that the salaries of the 9 000 employees would be taxable – rendering the expenditure even more neglible.

Direct consequences of this project would include:

- 9 000 job opportunities (not counting the employment responsible for the construction and furnishing of the workstations).
- Increased literacy levels – people will be encouraged to optimalize their reading skills, as this is the key to unlocking and managing information. Through reading, people will begin to appreciate the vastness of the global world, and unshackle themselves from narrow and provincial perspectives. This may inspire more learning and motivate individuals to greater levels of aspiration, which would have a ripple effect on families, communities and the nation at large.
- The culture of learning, which was largely destroyed in large segments of South African schools during the apartheid years, could become vibrant and dynamic. As a consequence, overcrowding in classrooms can be addressed in real terms.
- Imbalances between rural and urban areas will be addressed. Uncontrolled migration to cities will diminish, which would address the problems associated with rapid urbanization.
- ICT will encourage and promote small business development. The dispossessed will be in a situation where their products and services can be marketed to a phenomenally increased market. Instead of standing on a street corner, trying to sell, e.g. African pottery, with a very low success rate, the entrepreneur would be in a position to market said pottery to international clients.

An example of this is the success of Vicky's Bed and Breakfast, which is advertised as South Africa's smallest hotel. It is made of tree trunks, corrugated iron and hardboard. Vicky Ntozini has housed tourists from all over the world, and has won a berth in the final shortlist of the prestigious 2001 AA Travel Guides Accommodation Awards programme.

A number of similar establishments exists and proprietors testify that bookings have increased by 45% after positioning themselves on this particular website.

- Improved healthcare and medical self-management will become a reality. The implications here are staggering, and correlate with the seminal work by Sacks (2005) in which he claims (and proves) that chronic illness (malaria) can be considered as partly responsible for African poverty. Superior medical advice, diagnostic information and information about local resources could greatly impact on illness and disease.
- People can have access to political information. This would allow for a more democratic and truly participatory political structure.

- The unemployed will be in a significantly better position to obtain employment. They will be able to access information concerning job vacancies, and this, especially in the rural areas, will obviate the need to commute long distances in order to secure employment.

4. Conclusion

The utilization of ITC by Africa is an economic and moral imperative. In order to realize this, note should be taken of certain realities: Harris (1998) as quoted in Madon (2000:86) computed rates of Internet density by considering the size of the population in each region. His figures indicated that North America has 168 times the number of hosts compared with Africa, but that Africa has 396 times the number of people per host than North America. It flows that the South African government has a major responsibility to expand access to the Internet, as it has become a basic welfare system.

There are several voices which proclaim that the Internet will not deliver on the promise of increased prosperity. Hale (2003) claims that although the Ghanaian capital, Accra, has approximately 500 Internet cafes (6 times as many as London), the vast majority of users solely use it for email. She states that on every terminal, there are signs prohibiting the illegal cash-generating activities which first emanated from Nigeria. Jimba (1999:81) states that: "It is doubtful, therefore, if the often proclaimed advantages of information technology will be of any significant benefit to the populace of the third world".

Conversely, Rao (2004) states that there are more than 50 grassroots projects which are of great benefit to rural communities in India. He states that there are a number of factors which prevent rural communities in developing countries from reaping the full benefits of ITC :Lack of awareness about the benefits; lack of access facilities; language barriers in using the Internet; lack of local language information products; non-availability of government information online; and lack of motivation to use Internet information (Rao, 2004:262). He believes that if these factors can be addressed, and the eight C's, i.e. connectivity, community, commerce, capacity, culture, co-operation and capital are honoured, ICT's will have a fundamental impact on the lives of the poor and the unemployed (Rao, 2004:267).

For optimal ICT utilization in underdeveloped- and developing countries, certain prerequisites exist: people should have the methodology to acquire access to the information superhighway; they must be led to acquire knowledge and to take ownership of such knowledge, which will lead them to apply this knowledge in such a manner that they will be empowered to take control over their own destinies.

Abuse of ICT will remain a reality. If however, ICT can make a difference to only a few people, no government may refuse to keep the ICT door shut. Narrowing the digital divide is not only an economic necessity; it is a moral imperative of the highest order.

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