The Information Society and Knowledge Management: Issues for Africa


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Abstract:

The digital divide is a significant issue in Southern Africa. Castells\(^1\) warns of the danger of Africa being marginalized by global information society developments, and governments have foregrounded the importance of membership of the IS\(^2\). Yet the discourse of the Information Society is grounded in a specific ideological position, making liberal use of concepts such as human capital, intellectual capital and knowledge management.

Knowledge Management itself is a term which can be critically examined: the definition of the “knowledge” that is managed has tended to focus on discussions of “Mode 1” vs. “Mode 2” knowledge\(^3\) while ignoring – and thus denigrating the value of – other knowledges which may be indigenous or grounded in subordinate social perspectives, such as those grounded on class or gender\(^4\). Knowledge Management projects – where these have focused on people rather than technology – have also been criticised for their “vampiric” nature\(^5\), and the implication that people have value only as (disposable) receptacles of (valued) knowledge. These values suggest a “fast capitalism”\(^6\) position – an ideological stance in sharp contrast to the values espoused (at least publicly) by many African governments and their (historic) support bases. The place of Southern African states vis-à-vis the Information Society is thus called into question, and the potential ideological implications of their IS policies highlighted.

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\(^2\) see, e.g. http://www.sn.apc.org/nitf/


\(^4\) cf Belenky, MF (et al.) 1986 Women's Ways of Knowing USA: Basic Books

\(^5\) see, e.g. Prichard, C (et al.) 2000 Managing Knowledge: Critical Investigations of Work and Learning Houndmills: Macmillan Business

Terminology:

Most analysts would argue that the processes of, and surrounding, globalisation have left today’s world very different from that of the past. While some, e.g. Tehranian (in Riggs, 2000), argue that it is merely an acceleration of changes which have been underway for thousands of years, others (such as Castells) argue that the change is paradigmatic. Whether quantitative or qualitative, change has happened, and the vocabulary used to describe this change has tended to reflect the perspective from which each analyst views this change. Some analysts, such as Castells, have changed their vocabulary with their shifting perspectives, and their writings over time thus reflect shifting terminology to describe what is essentially the same process, though viewed through a different lens.

As far as possible, the terminology used by the authors cited has been used in this assignment, mostly in inverted commas. [Where terms themselves are not contentious (such as “globalisation” – though the meaning or dimensions denoted / connoted by the term may be subject to dispute), these have been used without quotation marks.] Some of these terms are used interchangeably across – and sometimes within – texts. Examples of terms which may require clarification include:

*The Information Age* – as distinct from the Industrial Age. However, as Castells (1999, p5) argues, information has always been present in all ages; what distinguishes the “Information Age” from the Industrial Age is not so much the ubiquity of information as the technology and social / structural changes.

*The Information Revolution* – again, the change (whether quantitative or qualitative) has been not around information, but around technology. Castells (ibid.) refers to print as “the previous Information Revolution”, which raises questions as to how revolutionary the new technology is.

*The Knowledge Economy* – serves to define the current economic focus as knowledge-driven. Goods and services derive their value from a knowledge component rather than from their material existence; some indeed (such as derivatives) have no material existence. That the “Knowledge Economy” is a capitalist economy is never stated baldly – presumably because the lack of alternatives renders it obvious.

*Knowledge* – Knowledge, used with an initial capital, is used to indicate endorsed and valued knowledge, while knowledge (with no initial capital) refers to the word in its popular usage. “Knowledge” in inverted commas is used to indicate that the status of that “knowledge” is open to contestation.

*Knowledge workers* – workers who “add value” through their “knowledge” rather than just through their labour. This term encompasses what Castells refers to as “self-programmable labour”. Despite the strategies to homogenise their values, goals and lives to comply with corporate hegemonic objectives (cf. Gee, Hull and Lankshear’s discussion of this phenomenon), they remain “labour” (albeit self-programmable) and “workers” (albeit with knowledge). [See Bolt ]
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In his opening keynote address to the G-7 Ministerial Conference on the Information Society in Belgium, (1995), then Deputy President of South Africa, Thabo Mbeki, argued that the building of a Global Information Society should involve developing countries and address their specific needs (Cogburn 1996, ix). This led to the Global Information Society and Development Forum, which took place in South Africa in 1996.

During that Forum, a number of speakers highlighted the desirability of plugging Africa into the Global Information Society, to attract foreign investment, to participate in global markets and international scientific debate, and to facilitate the innovative provision of health, education and government services (see Cogburn 1996, 3 – 14). One of the speakers explicitly stressed the necessity of the developing world competing effectively in global markets as a “prerequisite for the general improvement of the quality of life” (Cogburn 1996, 10).

The Global Information Society and Africa

Cardoso (in Carnoy et al. 1993, 155) describes how globalisation has had a “negative and disintegrating effect” on the Third World, splitting off those countries which have managed to find a niche in the global economy from “a huge Fourth World of need, hunger, and above all, hopelessness”. Cardoso’s prognosis for countries of the South is bleak – he refers to it as “double jeopardy”. Either they “enter the democratic-technological-scientific race, invest(ing) heavily in R&D, and enduring the ‘information economy’ metamorphosis” – which will lead to their “‘being integrated’ as servants of the rich economies”; or ending up “ in the ‘worst of all possible worlds’… not even considered worth the trouble of exploitation; they will become inconsequential, of no interest to the developing globalized economy.’

Gee et al. (1996, 44) question the morality of a system that required an “undeveloped” country to serve an apprenticeship, being exploited by developed countries, before being allowed to enter the “enchanted circle” and, in turn, exploit others.

Yet the challenges facing what Mansell and Wehn (1998) euphemistically term “least developed countries” in their efforts to enter the “race” are enormous. At the G7 Information Society Conference (1995), Mbeki cited the (now commonplace) statistic that there are more telephone lines in Manhattan, in the USA, than in the whole of Sub-Saharan Africa. The provision of an adequate telecommunications infrastructure, a necessary but not sufficient condition for participation in the Global Information Society, was recognised as a priority in the South African Telecommunications Green Paper (1995, 8):
Telecommunications is the backbone of the global information economy and is becoming more and more important. It is not simply an aspect of development, but a precondition for its success.

Centuries of underdevelopment, coupled with crippling national debts, have left many African countries without the infrastructure, resources, and often the social and political structures to join the Global Information Society. Former Minister of Posts, Telecommunications and Broadcasting Jay Naidoo, during his term of office, undertook a tour through Africa with a view to linking Africa to the “Information Superhighway” – only to return empty handed, as immortalised in the Zapiro cartoon (22 April 1999)

Image 1: Minister of Posts & Telecommunications Jay Naidoo (The Sowetan 22April 1999)

The intervention and investment required to “enter the race” – elucidated by Cardoso (in Carnoy et al. 1993, 157) and the various participants at the Global Information Society and Development Forum (see Cogburn 1996) – are enormous, with economic, social and political dimensions, and the benefits questionable (an apprenticeship of being exploited, before rising to exploiter status). Yet the alternative – global irrelevance – is clearly a prospect African countries are loath to contemplate.

The Information Economy

It is common cause that the world economy has changed substantially over the past few decades. Many analysts (for example, Carnoy & Castells, 2001; Feather 2000, 1)
have described this change as revolutionary, and have some have even described the social and political changes as auguring “the end of history” (see, for example, Fukuyama 1989). One of the compelling characteristics of the new economy is that it is global – facilitated by modern information and communication technologies (ICTs), the market place (or “market space” as termed by Michael Earl 2000, 17) operates in real-time with little regard for constraints of place.

Another compelling feature is its informatisation. The new economy is an information economy (see, for example, Evans, 2000, 37) or possibly even a knowledge economy (see, for example, Earl & Scott, 2000, 177). Carnoy et al. (1993, 5) describe productivity as being “increasingly dependent on knowledge and information applied to production”, while Evans (op. cit.) describes knowledge as “the fulcrum of strategy”.

Evans and Wurster (1999, p15) contend that “every business is an information business”, while Earl and Scott (2000, p177) identify knowledge as “a sustainable source of competitive advantage, and one that is essential for companies to tap” in the current climate of rapid change and uncertainty.

Because of hypercompetition, business survival depends on the rapid development of increasingly customised products for niche markets. As Gee, Hull and Lankshear (1996, 26) point out, “the emphasis now is on (active) knowledge and flexible learning needed to design, market, perfect, and vary goods and services as symbols of identity… The winners design customized products and services on time / on demand faster and more perfectly than their global competition does or they go out of business.”

What is knowledge?

Within this context of the “Knowledge Economy”, the definition of knowledge itself has undergone change. Gibbons et al., (1994) differentiated between two types of knowledge which they term “Mode 1” and “Mode 2”. Mode 1 knowledge is that which has traditionally been regarded as knowledge – the product of scientific enquiry within ivory towers, subjected to rigorous testing and verification procedures, and conforming to Popper’s criterion of “falsifiability”. As defined by Gibbons et al. (1994, 1), Mode 2 knowledge “ is created in broader, transdisciplinary social and economic contexts”, and has the added dimensions of relevance, application and organisational diversity. The site of Knowledge production shifts beyond the universities into businesses, consultancies, government agencies, and other research centres. While Gibbons (et al.) define these changes as contemporary, it could be argued that it is merely the latest development in a trend stretching back in time.

In early Christian times, literacy was restricted to the clergy, and Knowledge was closely tied to religion. Secular knowledge, such as the impact of the seasons on agriculture, was seen as "common sense" and accorded less value.

The invention of metal movable type allowed for greater dissemination of knowledge, and while early printed works included mainly Bibles, Indulgences and other religious
texts, printers were soon using the technology to produce secular works such as Chaucer's *Canterbury Tales*. Printing technology thus led not only to dissemination of Knowledge beyond the clergy, but also to a secularisation of Knowledge.

In the Middle Ages, the Medieval University institutionalised the transmission of Knowledge, through the training of professionals such as doctors, lawyers and priests. Altbach (1998, xvii) argues that these universities were global in character, drawing students from across Europe, and providing instruction in Latin. Training was lengthy - up to sixteen years in the case of theology - and students came from the elite. Knowledge was thus retained within the upper classes of European society.

In the Nineteenth Century, the Humboldtian University embraced the creation of Knowledge through research. Universities were modelled on the "university of the masters", such as the Paris university. The location of "experts" within universities, whose knowledge is valued and socially sanctioned, has resulted in universities becoming acknowledged as the centres of Knowledge production and dissemination.

The 1960s and 1970s were characterised by a number of social changes. Women entered the workplace in large numbers, liberation struggles against colonial powers were fought and won in Africa, and the University experienced student revolt. This led to a process of democratisation of Knowledge - other forms of knowledge (e.g. indigenous knowledge, knowledge arising out of gender, race or other such orientation) were accorded value, and began to enjoy exposure. However, many of these new perspectives were essentially bourgeois - for example, the early wave of feminism - and thus, while the definition of Knowledge may have broadened, the ownership of Knowledge production still lay firmly in the hands of the bourgeoisie.

**What has happened to knowledge?**

As noted above, the “Information Revolution” has led to the formation of a global economy based on “knowledge” - while employment in many traditional sectors such as manufacturing declined during this period, employment in the services sector rose sharply. The “Information Revolution” has brought about a fundamental shift in emphasis - increasing numbers of workers are being employed as “knowledge workers”, and every business claims to be "an information business".

The “Information Revolution” has spawned a parallel process of privatisation of knowledge - companies whose primary focus is “knowledge” (such as market research organisations and consultancies) as well as other businesses from pharmaceutical companies to software manufacturers are conducting or commissioning research. This “knowledge” is "owned" by the commissioning (or conducting) company and its products fiercely protected through patents and copyrights.

Knowledge dissemination through the mass media has been compounded though an offshoot of the “Information Revolution”: the use of technology to "legitimise" “knowledge”. No form of quality control exists for material posted on the World Wide Web - anyone with access to a service provider or a web server can post
anything they fancy; yet to the person accessing the information, there is little to distinguish the "amateur" postings of an individual with the peer-reviewed product of a tightly controlled research process. On the Internet no-one may know you're a dog - equally, no one can tell if your "information" has the validity it lays claim to.

It can thus be argued that the “Information Revolution” has given rise to a shift in the class location of the production of knowledge. However, this shift is far from complete - while the Internet has provided a platform for "almost anyone" to make their point, access to the relevant resources and skills remain a factor limiting access. The Digital Divide continues to deny access to knowledge, and to knowledge production and dissemination, to many. Similarly, within the cacophony of voices, only the sophisticated can count on being heard - those with access to the know-how to market their voices above the others, to lay claim to the increasingly scarce resource of human attention.

**Knowledge Management**

McInerney and LeFevre, in Prichard (et al. 2000, 2) assert the inevitability of the rise in prominence of Knowledge Management in “an age where consultants live on the Internet and knowledge provides the new competitive edge”. Given the recognition of the value of knowledge and intellectual capital, the restructuring of organisations that led to redundancies and retrenchments – causing the loss of knowledge and intellectual capital as skilled and knowledgeable staff were downsized – has alerted organisations to their vulnerability on the knowledge front, spurring the trend to “manage” knowledge.

This leads to an ethical question: who owns this knowledge? While explicit knowledge created on the job clearly belongs to the organisation, tacit knowledge and expertise built up over the years is a more difficult issue. If specialist knowledge is “mined” and made available to others, the autonomy of the “owner” is undermined, and her/his value to the organisation is reduced. The underlying values of knowledge management thus appear vampiric, rather than empowering.

Yakhlef and Salzer-Mörling (in Prichard et al. 2000, 22) examine the discourse of intellectual capital and conclude that its purpose is to translate this “intangible asset” into hard figures, which can be reflected on a balance sheet and which can be managed – as any other asset – to maximise profit.

**A closer look at the Discourse**

The Discourse of the Information Society – like that of Knowledge Management – is a capitalist discourse, though never overtly stated – possibly because of the current absence of alternatives. Its vocabulary coincides with that which Gee et al. (1996) refer to as “fast capitalism”. They describe (xiv) a process whereby a new technical tool is adopted, and – through a social intervention – a cultural change is brought about, raising he question of values. The programs outlined by the participants at the Global Information Society and Development Forum as prerequisites for Africa’s
participation in the Global Information Society, and those factors outlined by Cardoso (see discussion, above), echo this process. A technology – in this case, ICTs – is adopted (for its promise of increased economic growth); yet its application demands and brings about social interventions and cultural changes that may not have been foreseen or desired. Membership of the Global Information Society does not merely change how we do things; it also challenges and changes who we are and what we do.

Gee et al. (op cit., 22) draw the distinction in any discourse between the goals and values overtly espoused by the discourse, and those that emerge in practice. The vocabulary of the Global Information Society, knowledge management and “fast capitalism” resounds with terms such as liberation, empowerment, autonomy, vision and many more – terms which resonate with the progressive project of post-liberation African governments. However, the meaning ascribed to these terms by the Discourse is not that which is commonly understood. The subversion of vocabulary – as illustrated by the application of the word “knowledge”, described above – masks the inherent limitations of the Discourse.

For example, knowledge-intensive organisations with “fast capitalist” management practices stress concepts such as core values, shared vision, creativity and participation, yet do not allow the “shared vision” or “core values” themselves to be challenged, negotiated or debated. These are prescribed, and the employee is expected to absorb these and “convert”, living their lives according to them. This is a similar situation to the supermarket customer, faced with a “choice” of a hundred different kinds of shampoo – but not the choice of whether or not to participate in consumer society.

As alluded to above, the Discourse is profoundly imperialistic. Gee et al. (op cit., 26ff) describe how it not only annexes and corrupts the meanings of words, but also takes over the vocabulary, practices and social identities that belong to other Discourses, such as those connected to churches, communities, universities, and governments.

But perhaps the closest indication of the true, hidden values of the Discourse comes from observing the impact. Despite the oft quoted “increase in the standard of living”, this has been increasingly uneven. Castells (2001, 15) discusses increasing inequality, poverty and social exclusion brought about through globalisation, both between rich and poor countries and between rich and poor sectors within countries. It is clear that while the new world order has benefited some, there are others for whom it has been a curse. A review of social indicators (see, for example, Mansell and Wehn 1998) reveals that – as expected – Africa appears to have benefited least.

**African values**

How do the values of the Discourse relate to African values? Clearly, if values are best identified through examining practice, African values are many and contradictory, as evidenced by the variety of practices, structures and models enacted throughout the continent. However, since much of the Global Information Society rests on “projective” or “enactive” texts (i.e., “parts of larger projects to enact [call.
into being] a vision of a new world”; Gee et al. op.cit., 33), I have similarly resorted to a number or seminal “projective” texts exhorting an African vision. These texts include the Freedom Charter, a 1955 document adopted by the Congress of the People setting out their vision for a post-Apartheid South Africa; The Reconstruction and Development Programme, the programme of action adopted by the ANC prior to the transition to democracy in South Africa (1994), and the Statement by (then) Deputy President Thabo Mbeki to the African Renaissance Conference (1998). Incidentally, a recent article by Pallo Jordan, prior to the 51st ANC conference in December 2002, reiterated that the Freedom Charter “remains the ANC’s programme”.

The goals and values contained within these documents highlight concerns for “the masses”, building a vision of a (arguably socialist) welfare state where the wellbeing of The People – all the people – is paramount Colonialism, Apartheid and other forms of neo-colonialism and imperialism are expressly denounced, distanciated as “foreign”, as are financial inequities between North and South, the deification of “the Market”, and structural disempowerment. These contradict very directly the goals and values as enacted by “fast capitalism” and the Global Information Society, as outlined above.

**Potential implications**

It is clear from policy statements and texts cited above that Southern African governments intend pursuing the goal of membership of the Global Information Society, hoping to increase economic growth and thereby improve the quality of life of their citizens. However, analysts such as Castells and Cardoso (see above) argue that, to attain full membership, countries from the South – having made the massive investments and infrastructural and socio-political changes required - first need to undergo a period (length not specified) during which they will be exploited by the richer economies. After this, they may commence exploiting others on the periphery – both within their own country and outside. The implications of the alternative – global irrelevance – have nowhere been fully explored.

Given the evidence that globalisation exacerbates inequalities both between rich and poor countries, and within countries between rich and poor sectors, it is reasonable to expect that engagement with the Global Information Society may well ultimately improve quality of live on average among citizens of African countries, but that this improvement will be neither universal nor restorative. On the contrary, it is likely to reinforce current inequities and divisions, with the rich becoming richer and the poor becoming poorer. The masses of The People, the intended beneficiaries of African vision statements, are unlikely to reap the rewards.

Gee et al (op.cit., 44ff) discuss the internal contradiction inherent in the new world order, where the small proportion of beneficiaries, and large number of losers, render the system unsustainable. They quote Peter Drucker (45) as follows:

> The social dignity of the post-capitalist society will, however, be the dignity of the second class in post capitalist society: the service workers. Service workers,
as a rule, lack the necessary education to be knowledge workers. And in every country, even the most highly advanced one, they will constitute the majority.

Reich, quoted further on in the same chapter, offers an even bleaker prognosis. He speaks of a “rising one-fifth and a falling four-fifths in the new work order of economies” within the Global Information Society (Gee et al., op. cit., 47), predicting that – by 2020 – “the top fifth of American earners will account for more than 60 percent of all the income earned by Americans; the bottom fifth 2 percent” (Reich in Gee et al. op. cit., 48).

With 80% doomed to becoming “servants” on the basis of their lack of access to knowledge and education, while 20% of their compatriots continue to grow richer, it would be only a matter of time before the “information revolution” was superseded by another revolution.
REFERENCES CITED


