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**'INTELLIGENT ISLAND DISCIPLINE:
NOTES ON CULTURE, GOVERNANCE, AND
SUBJECTIVITY'**

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‘INTELLIGENT ISLAND DISCIPLINE: NOTES ON CULTURE, GOVERNANCE, AND SUBJECTIVITY’

Alwyn Lim

This paper constitutes part of ongoing research in conceptualising and articulating the culture of technology in Singapore. Of particular relevance in these notes is how categories of subjectivity are socially constituted and governed by specific programmes and discourses, which traverse a four-fold negotiation of postcoloniality, technocapitalism, late modernity and globalisation. The insertion of economic/commercial programmes and goals in the overall narratives of progress and utopia of Intelligent Island discourse invests and appropriates particular technologies of discipline. Specifically, these notes attempt to highlight the dynamic interaction between discursive representations and non-discursive practices and how they are negotiated around the postcolonial subject and his/her relation to power, knowledge and the discourses on technology in the Intelligent Island.

Introduction

On 2 April 1992, the National Computer Board (NCB) of Singapore announced its IT2000 vision and plans which made the headlines of *The Straits Times* (ST) with ‘Computer links for all in 15 years’:

In about 15 years, virtually every home, office, school and factory here will be interconnected through computers, giving Singaporeans quick and easy access to a wide range of services and information through a voice command or touch of a button. For instance, they can do their shopping and pay for the goods bought from home. If they are going out, they can use the computer system to plan their route and find out which roads to avoid because of congestion. This is the vision as spelt out in the Government’s IT2000 plan, which envisages turning the Republic into an ‘intelligent’ island in 15 years.

June 1998 saw the commercial launch of Singapore ONE, which is a national initiative to deliver a new level of interactive, multimedia applications and services to homes, businesses and schools throughout Singapore. It is one of the first few implementations of multimedia broadband networks and applications in the world:

It will help Singapore stay at the cutting edge of the digital age: redefining lifestyles, reinventing work and leisure, and powering the country’s economic engine. As an extension of Singapore’s IT2000 Masterplan in transforming the country into an Intelligent Island where information technology (IT) is exploited to the fullest to enhance the quality of life of the population at home, work and play... , Singapore ONE is a major milestone in the realization of this vision. (www.s-one.gov.sg)ⁱ

‘Information-communications technology’ (ICT), the ‘Intelligent Island’ and the ‘information age’/‘knowledge-based economy’ have become common tropes through which the image of

Singapore and its body social are articulated, highlighting the seeming ubiquity of science and technology in Singapore society. In light of the statements above, the hope and aim of this paper is to interrogate how we ‘speak’ of Singapore as an Intelligent Island – what I refer to as *Intelligent Island discourse* – and to critique the representations of these technological networks and how they serve to (re)construct and (re)configure the representation of Singapore society. In so doing, the sociocultural dimensions and the changing social experience with the onset of Intelligent Island discourse are implicated, for example in how Intelligent Island discourse acts a conduit for governmental and political technologies in disciplining and constituting the body social.

My starting point is the acknowledgement of what has often been referred to as the permeation of most realms of social and cultural life with information-communications technologyⁱⁱ in contemporary developed societies (cf. Aronowitz, Martinsons and Menser 1996; Baudrillard 1993, 1994; Bell 1973; Castells 1989, 1996, 1997, 1998; Ellul 1964; Heidegger 1977; Lyon 1988; Poster 1990; Postman 1993; Webster 1995).ⁱⁱⁱ Yet I hope to take this reflection further and argue that various institutions, such as the media, advertisements, and selected texts significantly contribute to this ubiquity.

Intelligent Island discourse, like all manners of discourse, comes with its sustaining institutions, vocabulary, imagery, and principles. Sites are opened up where statements are made, views are authoritatively disseminated; it is constantly (though not always in similar ways) structured, represented and elaborated upon. Indeed, it is a constructed body of theory and practice in which there has been significant material investment, which in turn constitutes systems of knowledge and grids of specification.

The Body Electronic

The body electronic is the notion of Singapore as ‘electronically invested’ and it is my argument that this notion runs parallel to other formations such as the body social or the body politic – it is

the technological dimension of Singapore society and how it is selectively and particularly represented via tropes, imagery, and texts. This conception of the body electronic of Singapore can thus be surveyed and problematised sociologically, geographically, economically, politically, and historically. The sociological approach I undertake is subsequently informed to a large extent by these other disciplines and discourses.

The Intelligent Island As Discursive Formation

I have found it appropriate to utilise Michel Foucault's particular conceptions of 'discourse' and 'discursive formation' as elaborated in *The Archaeology of Knowledge* (1972) and *The Order of Things* (1973a). One can only understand the complex role that information-communications technology plays in constituting or even (re)structuring Singapore society and its far-reaching implications by first examining Singapore as an Intelligent Island as *discourse*, in its textual exteriority. By *discursive*, I mean to show how Intelligent Island discourse is complexly, intricately, and even antagonistically *represented*. By *formation* I mean two things – firstly, how the idea and image of the Intelligent Island is *constructed*, and secondly, how this construction is supported to the extent that it constitutes a *coherent body*.

It would become increasingly clear that Intelligent Island discourse is not merely about information-communications technology and its physical, technical aspects per se, but part of an overall strategy and contested site which appropriates and links up with discourses of nation-building, the notion of defining a postcolonial identity of social self, and narratives of late modernity and what Anne McClintock (1995) calls 'the Angel of Progress'.

Situating Intelligent Island Discourse

Discourse abhors a vacuum since no utterance is possible without a discursive formation constraining it and, simultaneously, inciting it to production and constitution. Consequently, how we speak of Singapore as an Intelligent Island can only be possible given the dynamic exchange

between articulation and the sociohistorical conditions on which this discourse is (re)negotiated (cf. Foucault 1970, 1972; Giddens 1984, 1990, 1991; Mannheim 1936).

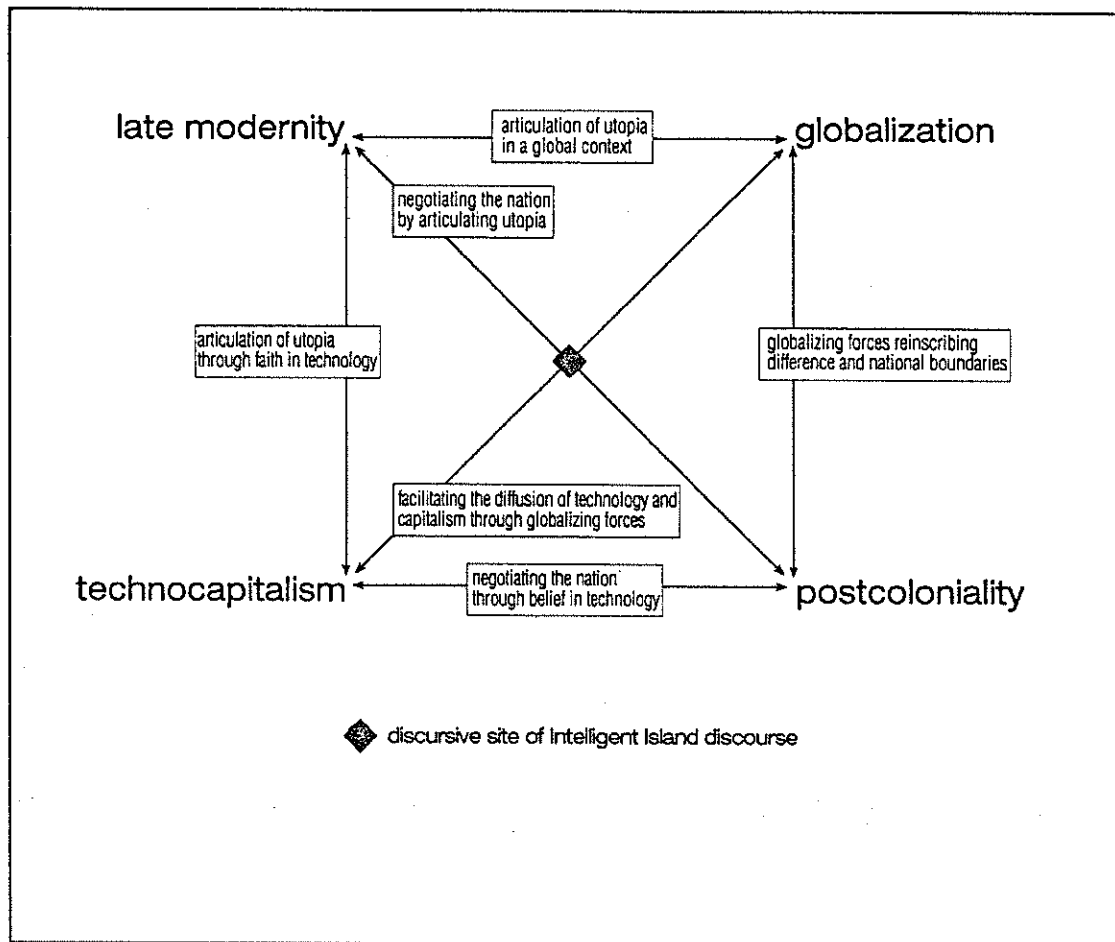
Given the immensely dense and complex nature of the empirical data in question, it was nevertheless possible to identify four general lines of discursive articulation from the various 'texts' that were studied – 'postcoloniality', 'globalisation', 'late modernity', and 'technocapitalism'. To the extent where these four discourses intersect and traverse each other, a discursive site is opened up where Intelligent Island discourse can be articulated and elaborated upon.

These four nodes do not refer to the phenomena as they are in empirical 'reality' but rather the discourses that surround them and appropriate them – the discourses *of* postcolonialism, globalisation, modernity, and technocapitalism. Further, the four nodes do not represent a totalising, unitary structure that encompasses Intelligent Island discourse.^{iv} Instead, it is precisely where these four nodes of discourses traverse each other that a discursive location is opened up – this is where Intelligent Island discourse takes place. It is on this site that we are able to (discursively) articulate the notion of Singapore as an Intelligent Island and it is useful to situate this model throughout this paper as a mental map, guide, and perspective (see Figure 1 on pg.5).

Postcoloniality

Allegorically, the term postcolonialism marks history as a series of stages along an epochal road from 'the precolonial', to 'the colonial', to 'the postcolonial' – a usually unquestioning commitment to linear time and the idea of development. 'Metaphorically poised on the border between old and new, end and beginning, the term heralds the end of a world era but by invoking the very same trope of linear progress which animated that era' (McClintock 1995:10). Indeed, scholars like Akhil Gupta question whether there is in fact a 'postcolonial condition' and note the

Figure 1. *Situating Intelligent Island discourse* (Source: Author)



(ab)uses of the notion of 'postcoloniality' (1998:6; also Childs and Williams 1997:1-25; Mishra and Hodge 1991:399-414; Spivak 1999).¹

For our purposes, these shifts in the nature of 'postcoloniality' draw attention to the 'imprint of differing tempos of the end of formal colonial rule on diverse places' (Gupta 1998:23) and 'the consequences they have for young nation-states', like Singapore, struggling to define their 'identity' and to construct a 'citizenship'. Nationalism, as Ernest Gellner notes, invents nations where they do not exist and most modern nations, despite their appeal to an eminent and immemorial past, are of recent invention (Gellner 1983; cf. Loy and Wee 1997; Hobsbawm and Ranger 1989).² Singapore is certainly no exception:

August 9, 1965 was a 'moment of anguish' for all citizens of Singapore, who discovered suddenly that they had been cast off from the federation of Malaysia. Singapore had merged with Malaysia in September 1963 in the belief that this was the only viable way for it to gain independence from the British and survive economically. (*ST*, 13 September 1998)

Certainly, the inscription of history around a single 'continuity of preoccupations' and 'a common past', runs the risk of 'a fetishistic disavowal of crucial international distinctions that are barely understood and inadequately theorized' (McClintock 1995:12) but interrogating the notions of 'nation' and 'nation-building' within the discourse of postcoloniality can help shed light on Singapore's 'postcolonial condition'.

Globalisation

Globalisation is certainly an intellectual field gaining much academic currency (cf. Albrow 1997; Featherstone 1990; Featherstone, Lash and Robertson 1995; Hannerz 1996; Robertson 1992; Robertson and Khondker 1998; Scott 1997). In relation to this work, globalisation should be surveyed with respect to the globalising of informational networks, linkages, flows of information (Castells 1997), and complex connectivities (Tomlinson 1999).

This requires us to acknowledge a 'global-human condition' and the 'world-as-a-whole' in all its 'complexity and structural contingency' (Robertson 1990:17-8). Succinctly, the

globalising process describes 'the ways in which the world "moved" from being merely "in itself" to the problem or the possibility of its being "for itself"' (1990:23). Many academics have made light of the apparent dichotomous opposition between the 'global' and the 'local' (Axford 1996; Cvetkovich and Kellner 1997; Vayrynen 1997) and, here, it is Robertson's critical insight which is indispensable:

...the debate about global homogenisation versus heterogenisation should be transcended. It is not a question of *either* homogenisation or heterogenisation, but rather of the ways in which both these two tendencies have become features of life across much of the late-twentieth century world...the ways in which homogenising and heterogenising tendencies are *mutually implicative* (1995:27).³

It is this view that globalising tendencies produce and reinscribe 'locality', 'tradition', 'culture', 'difference', how global informational flows are assimilated locally that propagate the idea that the Intelligent Island is the unique product of Singaporean achievements in exploiting information-communications technology – its status as port/airport/financial hub/etc., its utopian drive to be the best in the world while stemming out 'negative' Western influences/values. We can situate Singapore in this global context and map its sociohistorical space in the global economy⁴ – as a young independent nation that was *at once* involved in a global situation with her independence, one that she had to succumb to and exploit simultaneously for her economic survival.

Late Modernity

Sidestepping contentious debates that (de)centre around modernism and postmodernism (cf. Koertge 1998; Sokal and Bricmont 1998), I prefer a more conservative approach to a perspective on modernism and modernity. This view acknowledges the radical disjunctures that have been brought to bear on society through information-communications technology but, simultaneously, sees essential continuities, which, though restructured, nevertheless remain significant (Giddens 1990, 1991; Habermas 1987, 1989; Schiller 1984; Harvey 1989). Specifically, I concentrate on

the sociocultural dimensions of late modernity, what Fredric Jameson (1991) calls ‘the cultural logic of late capitalism’.

It should be apparent that aspects of late modernity are intricately implicated with discourses on globalisation and postcoloniality. Robertson, for example, suggests that ‘globality is the general condition which has *facilitated* the diffusion of “general modernity”’ (1995:27). While Jameson associates this ‘cultural logic’ of late modernity with a utopian *Weltanschauung* (as is strikingly evident in Intelligent Island discourse), his position on its cultural depthlessness careless of historical time overlooks the dimensions of how historical narratives are discursively invested and constitutive of our spatio-temporal location in the here and now.

In particular, I wish to develop upon a sociocultural aspect of late modernity – the ‘utopian mentality’, the ‘Angel of Progress’ – and how the discourses on progress and development are deeply embroiled in Intelligent Island discourse. For instance:

The vision of the Intelligent Island is based on the far-reaching use of IT. It sees Singaporeans tapping into a vast well of electronically-stored information and services which they can use to their best ends – to improve their business, to make their work easier and to enhance their personal and social lives. (*A Vision of an Intelligent Island*: vii)

Situating Intelligent Island discourse within development discourses, practices, institutions, and narratives of progress and technoscientific advancement allows us to interrogate the discursive construction of the Intelligent Island and how these texts and practices appropriate materially invested accounts of nation-building and local ‘histories’.

Technocapitalism

Systematic discussions into the changing nature of ‘capitalism’ in the ‘information age’ highlight the mutually implicative dimensions of information-communications technology and capitalism today (Appadurai 1996; Bell 1973, 1976; Castells 1989, 1996, 1997, 1998; Castells and Hall 1994; Harvey 1989; Kellner 1989; Marsden 1999; Poster 1990; Schiller 1986). While much of this academic dialogue informs the discourse on what Douglas Kellner calls ‘technocapitalism’

(Kellner 1989:178), what I have chosen to emphasise is not technocapitalism as a totality or 'new' mode of capitalism but to acknowledge that it is but one form of capitalism among many other constituent variants.

Therefore, it is not merely the physical characteristics and networks that constitute the form of capitalism that relies on information-communications technology but *also* the social relations mediated by and through the (ab)use of such technology, which enables the simultaneous deterritorialisation and reterritorialisation of economic markets as well as cultures. Technocapitalism, for our purposes, is the form of capitalism that relies on information-communications technology both in its conception and dissemination.

This dimension of the changing nature of global capitalism is built on 'the rapid development of communication technologies and the tighter interconnection of financial markets, multilateral institutions and development orthodoxy shifted to the advocacy of neoliberal positions' (Gupta 1998:13). Further resonances with postcoloniality can be made with technocapitalism's reliance on 'high technology...to maintain the tension between...phenomena, demonstrating how a conjunctural analysis of postcoloniality can attend to moments of both articulation and disarticulation' in a global frame of reference (1998:14).

References to the use of information-communications technology and its capitalistic aspects are rife in Intelligent Island discourse (see Jussawalla 1990). To take two examples, the promotion of technopreneurship and use of information-communications technology in small-medium enterprises in Singapore (Ko 1990:25-6; Bjerke 1998; Tan 1997) point to the extent that discourses of technocapitalism intersect with Intelligent Island discourse.

The Question Concerning Technology

The intersection of these four discourses and how they are appropriated and synthesised by Intelligent Island discourse thus opens the site whereby we can make sense of the sociocultural implications of speaking of Singapore as an Intelligent Island. It is therefore not a question of

whether we are entering the information age, if Singapore is an intelligent island, if we are turning people into machines or whether there is increased surveillance and social control – we have to show how it is even possible that the question of technology *is* a question, to interrogate the ways that we might even begin to *speak* of an ‘intelligent island’. This can be achieved through showing how the question of technology and Intelligent Island discourse is put together and (re)negotiated within and between texts.

Discourse and Power/Knowledge

The work of Michel Foucault is significant to Intelligent Island discourse because of the important connections made between institutionalised knowledge production and power, and how this enables the effective operationalisation of disciplinary and self-regulatory practices and strategies (1972, 1973a, 1973b, 1975, 1979, 1980a, 1980b, 1991). Studying Singapore as an Intelligent Island discursively problematises the epistemological premises, heuristic tools and the formation of subjects and objects through complex, but intelligible, processes of knowledge production:

What we are concerned with here is not to neutralise discourse, to make it the sign of something else, and to pierce through its density in order to reach what remains silently anterior to it, but on the contrary to maintain it in its consistency, to make it emerge in its own complexity. (Foucault 1972:47)

In analysing the *idea* and *discourse* of Singapore as an Intelligent Island, I have found it practical to study and show how this idea or discursive formation has been diffused and disseminated in various ‘texts’ and literature, coupled with the strategic selection of certain historical ‘landmarks’ which constitute Intelligent Island discourse. This would include official policies, plans, speeches, newspaper articles, press releases, advertisements, community songs, internet websites and even academic writings. The main inquiry I pursue is in how the social and cultural dimensions of Singapore and its body social are implicated in these disparate texts. In particular, one of my objectives is to show precisely the *interlinkages* between segments of these

different texts, as well as between the various government institutions I have contacted and spoken to, in exploring the diverse sites and signifiers of knowledges and practices interwoven into Intelligent Island discourse.

Foucault's notion of power is also useful in analysing how knowledge of information-communications technology in Intelligent Island discourse is disseminated and diffused through official texts as well as the popular media. Firstly, it is how Intelligent Island discourse is negotiated between these texts that points to the conception that because (the) power (to define knowledge) is never concentrated or centralised but dispersed and localised, this knowledge is necessarily diffused and has to be made acceptable. Indeed, for Foucault, 'power and knowledge directly imply one another...there is no power relation without the correlative constitution of a field of knowledge' (1979:27).

Secondly, and more significantly, the normalising and disciplinary functions of Intelligent Island discourse can also be made intelligible from the linkages between these texts, in particular, the discourse on IT education and re-training and the promotion of 'technopreneurship'. Foucault suggests that disciplinary technology 'makes' individuals and that it is 'the specific technique of power that regards individuals both as objects and as instruments of its exercise' (1979:170). In fact, the aim is to forge a 'docile [body] that may be subjected, used, transformed and improved' (1979:136), and 'trained, exercised, and supervised' (Dreyfus and Rabinow 1983:152). Also implicated is Foucault's notion of 'governmentality' through both broad rationalities and specific programmes of government (Foucault 1991) in supporting, enforcing and disseminating the use and knowledge of information-communications technology.

Governmentality: Specific Programmes

This section is primarily concerned with the operationalisation of the specific programmes of government in Intelligent Island discourse. In other words, my intention is to specifically consider

how this 'knowledge' of the role of information technology and Singapore as an Intelligent Island, how this social 'truth' constituted around the empirical facts is diffused and disseminated.

I argue that such a diffused network of 'knowledges' is massaged by a persuasive rhetoric and logic that aims to make the idea of technology acceptable to the general populace by and through targeting specific categories of persons and lifestyles. As Antonio Gramsci (1971) proposed, 'consent' has to be constantly secured from the people, it is never simply 'given'. In other words, the logic that is contingent here is what Hill and Lian refer to as the 'Return to Sender' dynamic (1995:13-4, 246-8; also Castells 1992:59). Indeed, Foucault was to say later that 'power relations are only possible in so far as the subject is free' (1997:292). For our purposes, Intelligent Island discourse is the discursive site where the conduct and behaviour of the postcolonial subject of Singapore is negotiated in tandem with the aims and means of the state.

Culture and Governance

One of the seven 'building blocks' of Singapore's integrated IT strategy is how to promote and foster 'IT culture':

We must mount a *total approach* to promote a supportive culture to prepare our citizens for their role in the emerging information economy.
(*National IT Plan*: 48)

This 'total approach' can be made intelligible by examining the various media in which the Intelligent Island as discourse and practice is articulated. Literature on the governmentality perspective suggests that various aesthetic and cultural practices might be productively rethought as normalizing apparatuses central to both the conceptualisation and operationalisation of such discursive practices. For our purposes, then, 'culture' and 'governance' can be thought of as systems of rationalities and technologies for governing conduct through practices of self-regulation (Hindess 1996, 1997; Miller and Rose 1990). As the governmentality perspective is largely informed by Foucault's deliberations on disciplinary technologies and power/knowledge,

the aim here is to problematise how such practices of self-regulation are negotiated by the diffusion of information-communications technology with the proliferation of Intelligent Island discourse.

Diffusion in Discourse

With respect to empirical actuality, the diffusion of information-communications technology in Singapore is constantly evoked in discourse, highlighting the ubiquity of science and technology in the lifeworld of Singaporeans. For example,

- The Civil Service is among the most highly computerised in the world.
 - About 90 per cent of companies with more than 10 employees are computerised.
 - A pool of 30,000 trained IT professionals.
 - Sales revenue in IT industry totalled \$11.95 billion in 1997.
 - The World Competitiveness Yearbook has consistently rate Singapore tops in computer density, IT literacy and the strategic exploitation of IT by companies.
- (From 'Information Technology', *Singapore Fact Sheet Series*)

In a more succinct manner,

Everything is electronic. (Informant)

While it might seem that such new technologies have already been readily embraced by better part of the populace, it would be erroneous to view this process as a result of unilateral state decisions to impose the use of information-communications technology on its people. Instead, we might suggest that Intelligent Island discourse is built on and appropriates cultural practices that *are already taking place*, despite them being disparate and uncoordinated. The need for integrated government IT strategies then attempts to bring these practices in line with state aims and objectives:

What is needed is a very positive attitude towards IT, fully appreciative of its potentials and the adjustments that will have to be brought about with its extensive use. Our IT vision will not be achievable if we do not bring about the *necessary attitudinal change* among our citizens. (*National IT Plan*: 48)

Consequently, this mode of governance is predicated on a persuasive rhetoric that has, as its objective, the inducement of self-regulating practices of the individual with regard to the use of such technologies. In particular, the 'globalising world' is depicted as one in which intensified connectivities and instantaneous, transborder transactions constitute a period of massive uncertainty (Du Gay 1996). The embracing of these new technologies in this global context is offered as a solution to the challenges shored up by global forces:

The environment is different, our neighbours are different, the world is different, the technology, the challenge is different. And it's easier in some ways because there are more resources, but in some way it is more difficult because you need more high-calibre manpower to run this economy.
(SM Lee Kuan Yew in *ST*, 13 December 1999)

Our young are well-trained and prepared to compete in the globalised knowledge-based economy.
(Excerpt from PM Goh Chok Tong's New Year message, *ST*, 1 January 2000)

The diffusion of such tropes and imagery in Intelligent Island discourse also appeals to an 'everyday' dimension by representing categories of persons and lifestyles. The television advertisement for Singapore ONE, for example, shows how information-communications technology can be embraced by 'all categories' of Singaporeans:

Table 1. Constituting categories of persons
(From 'I Want', Singapore ONE television commercial)

Statement	Category
I want Internet access everywhere.	Male, young
I want an interesting way to learn.	Female, child
I want security for my e-business.	Male, businessman/technopreneur
I want an easier way to shop.	Female, young urban professional
I want news-on-demand.	Male, young urban professional
I want to surf in my own language.	Male, senior citizen
I want better ways to communicate.	Female, young urban professional
I want to download 100 times faster.	Male, young technopreneur
I want to rule the skies.	Male, young
Faster...Better...Easier	

The advertisement further depicts imagery of a high technology urbanity that is possible with the One Network for Everyone – sheets of digital codes mapped over landscapes, shining buildings

of glass and steel – with the emphasis on speed and efficiency brought across by a euphoric brand of electronic music. What is of particular interest is in how the Intelligent Island is (re)presented as compatible with (i) *nature* (images of lush, green fields); (ii) ‘*tradition*’ (images of *Chinese* shophouses); (iii) *consumerism* (images of shopping malls); (iv) *youth* (images of children); (v) *the elderly*; (vi) *white-collar middle-class urbanity*; and (vii) *a rapidly globalising world* (television screens with images from around the world – one of which distinctly features US president Bill Clinton).

A walk down Orchard Road, Singapore’s prime commercial district, might lead one to believe that this is indeed not far from the truth. Giant screens line the buildings with their incessant advertisements only to be replicated on a smaller scale by information booths lining the streets with their touch-sensitive screens offering the latest in entertainment ‘news’. There is even an eCommunity online (www.i-one.net.sg) which allows Singaporeans to be updated and to participate in their neighbourhood affairs.

In a strategic move preceding the complete liberalisation of the telecommunications market in January 2000, local telecommunications stalwarts SingTel took out a *four*-page advertisement in *The Straits Times*, promising free Internet access to SingTel and SingNet phone subscribers.⁵ One entire page of this advertisement was devoted to this simple but highly persuasive message:

IN THE MILLENNIUM, 3.8 MILLION SINGAPOREANS WILL BE WIRED
TO THE WORLD FOR FREE. (ST, 13 December 1999)

IDA’s *Catalyst for Change* juxtaposes pictures of laughing children with those of a high-tech library with the line, ‘Catalysts can work in unexpected ways to improve our lives...by touching people in ways they never thought possible.’ Indeed,

IDA will facilitate the application of ICT to enhance the way people in Singapore work, learn and play – not just by making things more convenient, but also by creating a host of other exciting changes in our daily lives.

It can already be discerned that Intelligent Island discourse produces certain categories of persons and things and that these categories then serve as exemplars for self-regulating practices.⁶ We can identify such categories of persons as the 'technopreneur' or the 'eCitizen' and categories of things like 'smart schools', 'intelligent buildings' and 'eCommunities'. What such tropes and imagery present for us is how Intelligent Island discourse appropriates such everyday practices dealing with new technologies and brings them in tandem with state aims and objectives through inducing practices of self-regulation. When the subject is implicated in these discourses, the realisation of this utopian, high technology future then becomes a matter of personal as well as national responsibility.

The diffusion of Intelligent Island discourse does not only occupy 'national' boundaries. There is considerable pride expressed in discourse of the fact that Singapore is highly ranked internationally in categories such as the 'World's Most Intelligent City'. For example,

We're so much more advanced than some of the other Asian countries. I mean, what happened to Malaysia's Multimedia Super Corridor? (Informant)

'Be IT savvy, like Singaporeans' – The Johor state government has urged its people to emulate the culture of Singaporeans in mastering information technology (IT) for their future interest. (*ST*, 7 September 1999)

There is also a fundamental awareness of a global condition or at least global flows directing how Singapore as an Intelligent Island is articulated:

We're no longer asking questions like whether our top talent is going to the civil service or the private sector...but whether he'll be working in the US or for us. (A senior consultant with an information-communications authority)

We've got to monitor the global situation when it comes to technology...watch ...not really learning 'cause if we're learning, that means we're followers, not trendsetters... (Informant)

From these statements, we can postulate certain characteristics about the diffusion of Intelligent Island discourse: (i) that even though this diffusion encompasses the governance of whole (national) populations, it targets specific categories of persons and things at an everyday dimension that is intelligible to the 'average' Singaporean citizen; (ii) that the production and

diffusion of these categories in discourse serve as exemplars for practices of self-regulation; (iii) that with the diffusion of Intelligent Island discourse, these self-regulating practices become a matter of personal as well as national responsibility; and (iv) that this diffusion of discourse encompasses both intra-national as well as potentially 'global' dimensions.

Intelligent Island Discipline: Moral Geographies

Disciplinary power, according to Foucault, refers to multiple and diffuse strategic exercises of power which do not possess any necessary overarching dynamic, 'sovereign' will, or single rationality which draws them into a unified relation (Foucault 1979). While Intelligent Island discourse is certainly not 'unified' in this sense, it *is* possible to discern its limits and to determine its coherence when it is linked to other discursive formations or sociohistorical processes, especially in light of the fact that there *is* an integrated National IT Plan which authorises the space and limits of such discourses.

As IT is critical to our future economic well-being, it should not be left to fragmented approaches by different agencies. It is important that a new *consolidated* IT strategy be introduced, to be spearheaded by NCB [National Computer Board], *encompassing the full spectrum of potential activities*.
(*National IT Plan*: iii)

How such a 'plan' and 'knowledge' is negotiated by the postcolonial subject in Singapore, though, is altogether a different matter. This section focuses specifically on how the disciplinary functions of Intelligent Island discourse are deployed at a 'micro' level. For Foucault, power is exercised rather than possessed, diffused rather than concentrated at one source (Foucault 1979, 1980a, 1980b) – in fact, it would be more productive to think of power in terms of 'an infinitely complex network of "micro-powers", of power relations that permeate every aspect of social life' (Sheridan 1980:139; emphasis mine).

Thus, disciplinary technologies work on behaviour and conduct through norms and normalising processes (cf. Elias 1982). We might suggest that Intelligent Island discourse as an exemplary space is exercised by positively and productively governing conduct rather than

limiting an essentially free individuality; it is how persuasive rhetoric is employed in negotiating with the citizen the role and importance of information-communications technology:

The 'new' worker will have to manage all 'in parallel', family life in parallel with work life in parallel with social life. I enjoy my work because it allows me to do things 'in parallel'. You get all these 'productivity tools'...allows flexibility...my bosses can go pick up their kids in school, they can work late, put their kids in bed, then work again. Then they'll start clearing their e-mails at two in the morning. (Senior consultant)

Government, in a broad Foucauldian sense, does not entail acting directly on the moral character of subjects in localised contexts but is exercised in the general regulation of the conditions of everyday life at a distance (cf. Scott 1999:23-52). In Intelligent Island discourse, this translates to creating a 'climate for creativity and entrepreneurship':

A stimulating environment which promotes creativity and enterprise is a prerequisite to transform ourselves into an information economy.
(*National IT Plan*: iv)

Recognising this, the government has made changes to foster a more innovative and entrepreneurial society, starting with the education system. However, to succeed in the knowledge economy, the Government had to make some changes, and one of them was to create a more robust, vibrant and innovative population. ('Govts need global mindset, says PM', *ST*, 12 November 1999)

Foucault uses the figure of Jeremy Bentham's Panopticon as a figure for this disciplinary power – 'governing at a distance' – of power relations operating through self-regulation rather than direct force or coercion. For Intelligent Island discourse, this depends upon the careful organisation and monitoring of relations of 'spatial' (in a virtual sense) proximity between subjects, what Clive Barnett calls 'moral geographies' (Barnett 1999:379; Harvey 1993; see Figure 2):

The eleven IT2000 Sectoral Groups have made *comprehensive* recommendations and have identified more than 60 *strategic* IT applications. This will serve as a solid base for us to proceed with the next stage of implementing the NII [National Information Infrastructure]. Priority will be given to projects which have high impact on achieving the Next Lap vision and the potential to benefit a *large cross section of the people*, such as those in education, healthcare, and transportation sectors.
(*A Vision of an Intelligent Island*: 49)

These moral geographies can be conceived of as a specific application of the broad rationalities of exemplary spaces in Intelligent Island discourse, where the individual citizen is both a target and a conduit for discourses on science and technology and articulating the nation.

Consequently, Intelligent Island discourse can be said to work through

...techniques which permit individuals to effect, by their own means, a certain number of operations on their own bodies, on their souls, on their own thoughts, on their own conduct, and this is a manner so as to transform themselves, and to attain a certain state of perfection, of happiness... (Foucault 1993:203).

In particular, we might link this negotiation of social self and the 'attainment of happiness' with the utopian rhetoric of much of Intelligent Island discourse. For the citizen-subject, the realisation of Singapore as an Intelligent Island is predicated on a particular mode of behaviour and conduct and a particular conception of social self.

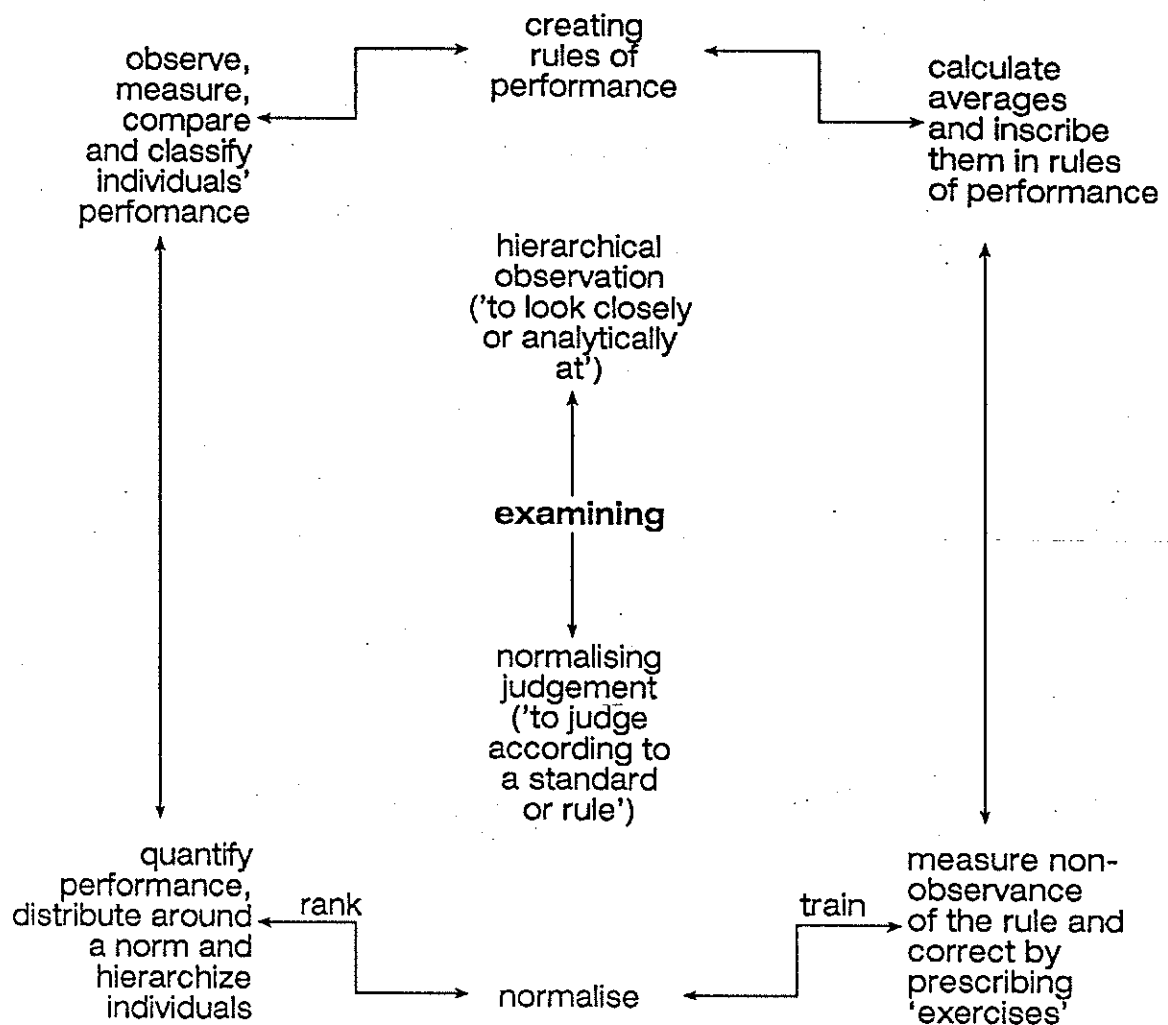
Organising Movement Through Discourse

Intelligent Island discourse creates an 'enclosure' – an 'inside' and an 'outside' – it creates a space and determines the limits around which what is articulated and produced is intelligible (cf. Bourdieu 1990).⁷ This enclosure is simply a homogeneous, well-defined space that is further organised, observed and controlled to concentrate the forces deployed within it. Consequently, space is organized differentially inside this discursive site and outside of it. In Intelligent Island discourse, its 'surfaces of emergence' are appropriated by the 'authorities of delimitation', which are then organized according to certain 'grids of specification' (cf. Foucault 1972; Sheridan 1980:97). This 'enclosing' is coterminous with strategies of nation-building and defining the boundaries of Singapore as a nation, given globalising flows and postcolonial negotiations:

The local network, S1, is very fast indeed...but it is quite a different story when it comes to accessing the Internet at large...*outside* Singapore.
(ST, 16 February 2000)

Situated at several geographic, trade and telecommunications crossroads, Singapore has become a major centre for the flow of information. Singaporeans are exposed to information from various parts of the world...plus the rapid

Figure 2. *The dual-sided nature of examining* (Source: Marsden 1999)



developments in Singapore's mass media field in recent years have brought the Republic closer to becoming the information hub in Asia-Pacific.
(From 'Information Hub', *Singapore Fact Sheet Series*, September 1999)

This coherent space (discursively represented) in which Intelligent discourse can take place is further partitioned into smaller divisions which are 'always, basically, cellular' (Foucault 1979:143). The *National IT Plan* is explicit in mapping out the seven targeted dimensions of the proposed IT strategy:

1. IT Manpower
 2. IT Culture
 3. Information Communication Infrastructure
 4. IT Application
 5. IT Industry
 6. Creativity and Entrepreneurship
 7. Coordination and Collaboration
- (*National IT Plan*: i, iii-iv)

These dividing techniques fragment tasks, distribute them in space, and organize this spatial order of production and makes possible a knowledge of the 'location' of individuals by revealing their presences and absences. The IT2000 Report, *A Vision of an Intelligent Island*, further elaborates on eleven sectors of Singapore that can be cross-referenced with the targeted dimensions above. Studies on these sectors apparently comprised of some '200 senior executives and academics from both the private and public sectors':

- a. Construction and Real Estate
 - b. Education and Training
 - c. Financial Services
 - d. Government
 - e. Healthcare
 - f. IT Industry
 - g. Manufacturing
 - h. Media, Publishing and Information Services
 - i. Retail, Wholesale and Distribution
 - j. Tourist and Leisure Services
 - k. Transportation
- (*A Vision of an Intelligent Island*: 3)

Taken in tandem with one another, these grids of specification facilitate the supervision of conduct and behaviour of each individual 'to assess it, to judge it, to calculate its qualities or merits' (Foucault 1979:143).

In Intelligent Island discourse, the individuals that occupy these various subdivided spaces are identified, subjected, and ranked. For instance, in a section on the impact of telecommuting on work patterns, the *National IT Plan* cites 'studies in the US' which have shown that,

...telecommuters usually live up to that trust and tend to be *more diligent* in teleworking. The studies show that the support staff of typists and clerical workers are *more productive*. For professionals whose work do not involve much social interaction such as scientists and programmers, there is evidence to show that they *achieve higher work productivity*. For management staff, their productivity is less easily quantified and many of the tools for telework are *not tailored to higher level of work*. (*National IT Plan*: 27)

At the centre is the individual, who is simultaneously information commuter, consumer, creator and transmitter. (Choo 1997:59)

Of course, these various strategies are synthesised according to analytical plans, which are represented by official publications like the *National IT Plan* and *A Vision of an Intelligent Island*.

The postcolonial subjects in Singapore are distributed and circulated in a network of relations in Intelligent Island discourse; indeed, there is a 'perpetual movement in which individuals replace one another in a space marked off by aligned intervals' (Foucault 1979:146-7):

The application of IT in the office environment not only merely allows automation and mechanisation of existing manual systems but, more importantly, also allows innovative *reorganisation* of work and flow of information *within* the office and *without*. (*National IT Plan*: 25)

Like in the organisation, we do a re-org [anisation] every year. We even rotate people just for renewal...a person should not be there for more than three years because basically he'd have used up all his ideas on the problems that are there. He has fixed ways of doing things after three years so it's time to move him out, get new blood, new ideas. We even move in new people every three years. We re-org[anise] every year just to take care of the changing external market. And also because of technology...so we re-org[anise]...all the time. (Informant)

These disciplinary techniques, we may suggest, were born out of a postcolonial negotiation with Singapore's independence, with the need to transform the 'confused, useless or

dangerous multitudes' into 'ordered multiplicities' (Foucault 1979:148; see Castells 1992:52).

The *National IT Plan*, for example, admits that,

...there was no proper co-ordination among the various organisations in [the spread of computer literacy]...the whole movement had been rather spontaneous... (*National IT Plan*: 11)

In Intelligent Island discourse, this reordering and mobilization of 'docile' and 'subjected' bodies is all the more articulated as a necessary condition for two reasons: (i) that the world is moving into a knowledge-based 'information age' as a result of globalising forces and the rapid diffusion and diaspora of information-communications technology, with Singapore placed at an advantageous position to be a regional as well as global information hub; and (ii) the argument that Singapore has few natural resources but a valuable human resource is taken one step further by encouraging the use and exploitation of information-communications technology:

[IT Manpower is] our key asset and the main determinant of our overall IT capability. They are the highly skilled champions who are experts in exploiting to enable our enterprises to gain their competitive edge. (*National IT Plan*: 47)

Further, the temporal dimension within Intelligent Island discourse is also elaborated on and structured. In Intelligent Island discourse, the use of such technologies enables the individual's time to be organized differentially inside and outside this defined and delimited enclosure. This point is persuasively put across by appealing to 'potential leisure and lifestyle advances':

IT will save us precious time in nearly all walks of life – *meaning more discretionary time will be available*. Going on holiday, going out to a show or to a restaurant, education, going shopping, commuting, healthcare, going to the doctor, working from home, reading a book, watching a video, talking to friends – just about every facet of our daily lives will be enriched by IT. (*A Vision of an Intelligent Island*: ix)

IT2000 will bend, blur and buckle the perimeters of space and time on the intelligent island. Life in the new cyberspace will be enveloped in a series of nested and overlapping spatial domains that include smart homes and buildings, virtual corporations, electronic marketplaces, IT townships and regional hinterlands. (Choo 1997:59)

What is intelligible from the discursive formation of the Intelligent Island within and between these texts is how the postcolonial subjects in Singapore are organised and 'disciplined'. These disciplinary technologies can be seen to work, for example through specific programmes:

Our role...is to oversee the overall development of manpower capabilities in Singapore. In areas where we've identified gaps in human capabilities, the necessary systems can be put in place, for example Conversion Programs for professionals, perhaps Skills Recognition for worker level training in ICT. (A divisional director of organisation management from an authority on manpower)

The relations between them and their use of information-communications technology are invested by such disciplinary technologies and constitute a working machinery which is *at once* a productive power (in an economic sense as well as in the sense that new categories, relations, perspectives are produced).

Systems of Correct Training

In mapping the body electronic, organising the distribution of bodies in space, extracting time from them and accumulating it to create a productive whole (the 'Intelligent Island' as greater than the sum of its parts) requires systems of 'training' its human resource – 'the chief function of the disciplinary power is to "train"...to bind together in such a way as to multiply and use them' (Foucault 1979:170). In Intelligent Island discourse, this 'training' is deployed in the form of directing human resource and manpower.

Through *continuous education and training*, we will enhance the ICT capabilities, knowledge and skills of the people to maintain the competitiveness of Singapore. (IDA, *Catalyst for Change*)

To propel Singapore ahead into the information age, the training institutions have a *most crucial role* to play...IT manpower is our key to successful exploitation of IT. No effort should be spared to ensure that our IT manpower will be of the highest level of competence. (*National IT Plan*: 47)

Indeed, the significance of ICT skills at an everyday level is continuously reinforced through their inseparability from the nature of 'work' in this 'new environment':

It will become more and more essential for workers to be fluent in IT. Just a look at the classified section of our *Straits Times* will give you the answer. More than 80% give the description that applicants must have knowledge of MS Office, Sun Application, Oracle Application...which means that only those that are IT competent should apply. (Informant)

It's no longer a question of 'Should this be on the Internet?' but 'Why can't it be on the Internet?'...It's like if you can't apply [for your job] over the Net then maybe you shouldn't bother to apply. (Informant)

Furthermore,

It's not so much the access to computers – they have them in places like the CCs [community centres] – but the personal skills that they need to get the jobs ...the basic IT skills and training. (Informant)

We're definitely seeing a 'new worker' [with the onset of ICT]. Like right now you have to do all your own reports, letters...it doesn't mean that if you're a director, you get your own clerk. You are your own secretary. (Informant)

The means of correct training are further operationalised through hierarchical observation and normalising judgement. Hierarchical observation or 'to look closely and analytically at' (Marsden 1999:166) in Intelligent Island discourse is founded on the distribution of individuals in space via that discourse itself and is materialised through technical systems which enable the tracking and monitoring of individual movement and activity. Such systems are designed not to be seen, but to render visible those being monitored (cf. Lyon 1994; Lyon and Zureik 1996); in other words, they constitute micro-sites of conduct and function as apparatuses of observation.

Within buildings [in Singapore], technology will demarcate multiple social spaces as occupants congregate around video walls and electronic water coolers, or else seek invisibility in corners unsurveyed by digital eyes. (Choo 1997:60)

We know the exact position of every bus-stop, every lamp-post and every traffic light. (SPower chairman Ho Kwon Ping, on the company's comprehensive and up-to-date map-related database, *ST*, 1 December 1999)

One particular spokesman for the Singapore Mass Rapid Transit (SMRT) claims that its tracking system enables them to know exactly who gets on and off, where and when, what kind of ticket s/he is using (e.g. 'student', 'adult', 'senior citizen') – more or less everything about a particular passenger (BBC's *Horizon*, 1990). This technical network spans everything from electronic payment systems and smart cards to traffic surveillance cameras and traffic management systems

like the Electronic Road Pricing (cf. Graham 1999:136, 141). We might suggest that the *idea* of Singapore ONE – One Network for Everyone – presupposes at once a certain unitariness through these diverse connectivities of a vast and intricate network.

Given a typically Orwellian scenario, the physical aspects of such a network of surveillance are real and potentially subject to political manipulation. However, the physical model of this network and its direct relation to surveillance via ICT only reveals one conduit of the attending power relations. For our purposes, I choose to focus on how such discourses negotiate the governmentality of individual conduct and self-regulation, not on how they might unilaterally dictate them.

This network of technological systems organises power relations among the postcolonial subjects of Singapore by facilitating a new kind of surveillance – what we might call the individualizing, disciplinary observation of the ‘*virtual gaze*’. In Intelligent Island discourse, this need for an intense and continuous supervision is inseparable from the need to mobilise a disciplined and productive workforce that is efficient and flexible:

Our promotion of IT culture *must be total* to prepare the country for moving into the information age. We should now adopt a planned approach to bring about a new level of awareness among the public through appropriate mass media activities in order to achieve the desired change in attitude to support our entry into the information era. (*National IT Plan*: 47)

This virtual gaze in Intelligent Island discourse has two dimensions. Firstly, individuals’ performances are observed, measured, compared, and classified. This assembles for each individual a ‘dossier’, as a describable and analysable object, and arranges the facts about them. Secondly, norms and rules of conduct are inscribed, constituting a ‘minimum threshold, as an average to be repeated or as an optimum towards one must move’ (Foucault 1979:183). As one informant confessed,

I guess we *are* an Intelligent Island...everything’s connected...wired up... everything is accounted for...and you can’t run away from that.

This normalising technique is negotiated with a governing of self-regulating practices in Intelligent Island discourse.

The normalising judgement that is fashioned in Intelligent Island discourse judges individuals according to a rule, based on hierarchical observation. A system of ranking is established where the performance of individuals is quantified and, further, put into relation with one another (see Tables 2, 3 and 4):

Sometimes we let the staff run the systems manually, you know, so that when they print out their work schemes, they can see the number of hours they've chalked up. Then they can decide whether they need to buck up and put in more work or not. (Informant)
(from the 'Information Technology Handbook' of a local primary school)

Table 2. IT Evaluation Plan (1997-1998)

Objectives	Evaluation Process	Person Responsible	Review date	Evaluation
All teachers to use 20% of the curriculum time for IT.	Check the computer log book and teachers' record book.	HOD/IT & Principal or VP.	June 1998	Teachers are using the computer labs as scheduled. P1 – P4 teachers are conducting IT lessons in the classrooms.
All pupils should be able to type at least 20 words per minute by the end of the year.	Check the result printout.	EL teachers	November 1998	
All teachers should be able to conduct IT based lessons and operate all hardware with confidence.	Classroom Observations and interviews.	HOD/IT	June 1998	Teachers are using the computers and its peripherals more frequent with lesser help.
To integrate the software into the lesson plan.	Check the scheme of work.	HODs	November 1998	

Table 3. IT Action Plan: Year 1997

No.	Objective	Strategy	Resource	Review
1.	All teachers to use	1. All teachers will allocated 2	Computer lab	September

	5% of the curriculum time for IT.	periods to use the computer lab. 2. All teachers to indicate the use of IT in their weekly lesson plan.		1997
2.	To encourage teachers to use powerpoint in presentation and in conducting lessons.	1. HODs to use powerpoint for meeting presentation. 2. Teachers will try to use powerpoint to conduct lessons where possible	Computer	December 1997
3.	All teachers will acquire basic IT skills by mid-1997.	All teachers to attend IT Power Training workshop.	External organization	June 1997
4.	To integrate the courseware into the lesson plan.	HODs to meet with subject committee to integrate the courseware into the lesson plan.	Courseware	June 1997
5.	All teachers to use the computer as a working tool.	Teachers to use the computer when preparing worksheets or test questions.	Computer	June 1997

Table 4. *IT Action Plan: Year 1998*

No.	Strategy	Resource	Review
1.	Each class to have at least 5 IT based lessons per week. The IT based lessons maybe in these form: • Lessons in the computer lab • Lessons in the classroom (for classes with computers) • Lessons in the MRL • Teaching using powerpoint presentation, etc.	Computers and LCD projector in the lab, classrooms and MRL	June 1998
2.	P1 – P5 teachers to introduce and conduct keyboarding to the pupils in January. Subsequently they are to spend at least 15 minutes of the scheduled IT lesson for keyboarding before proceeding to the actual lesson. P6 teachers to introduce and conduct keyboarding to the pupils after the PSLE examinations. To place 8 PCs at the free access area with touchtyping installed for pupils to practice keyboarding skills during their free time.	Computers	June 1998
3.	Teachers who are more knowledgeable in IT will handhold and share their knowledge with those are not so competent in IT. HOD/IT and IT committee to conduct sharing sessions on the use of new hardware if the need arises. HOD/IT to plan and organize IT workshops to help teachers sharpen and expand their IT knowledge.	HOD/IT and IT committee	Term 1
4.	HODs to meet with their committee to integrate the courseware into the curriculum.	Courseware	June 1998

In particular, the aim of normalising judgement in Intelligent Island discourse is to 'train', to measure non-observance of the 'rule' of conduct and to correct it by 'training' or prescribing 'exercises'.

Companies today demand that IT professionals be able to see the big picture. It is not enough to know how to program or set up a network; IT professionals need to be business savvy and work well with end users if they hope to advance their careers. Most companies and recruiters say they are increasingly looking for exceptional soft skills, such as business acumen and interpersonal skills, when evaluating potential candidates. ('Soft skills for the new economy', singapore.cnet.com/ebusiness/expert/help/000126/)

For example, in the field of education:

An on-going professional development model was adopted for teacher-integration. The professional cycle includes

- educational project consultancy and planning
- basic training
- curriculum integration planning
- intensive support period
- mid-point evaluation
- regular support period
- formal review-cum-training
- final evaluation

(From the 'Information Technology Handbook' of a local primary school)

Panopticism: Governing at a Distance

This combination of organising space and time with disciplinary and normalising techniques culminates in what Foucault (after Bentham) calls panopticism. In Intelligent Island discourse, this panopticism induces the appropriate conduct and behaviour of citizens while negotiating their self-regulating practices with the aim of incorporating them into state objectives. In particular, we may suggest that Intelligent Island discourse embodies a belief in the positive potential of new technology and promotes particular perspectives to it, that the realisation of these utopian high-technology lifestyles is predicated on the practice of a specific form of citizenship:

...the vision of a world-leading new age for Singapore cannot be realised by the Government alone. The Government can show the way. But the Intelligent Island

can only come about if the private sector and the public *embrace* the advantages offered.

The IT2000 Report provides that start. It is the base for the vision of the Intelligent Island. *It is up to us to build on it!*
(*A Vision of an Intelligent Island*: x-xi)

This panopticism and governance of conduct and self-regulation in Intelligent Island discourse is particularly focused in the Singapore educational system. After all, there is a whole institutional base 'on which the will to truth operates: the educational system, the distribution of information through libraries, learned societies, laboratories, the values set by different social systems on different forms of knowledge' (Sheridan 1980:123). Indeed, 'every education system is a political means of maintaining or modifying the appropriation of discourses, with the knowledge and power they bring with them' (Foucault, in Sheridan 1980:127).

In February 1999, Singapore hosted the Educational Technology Conference and Exhibition, 'EdTech 99' with the slogan 'Thinking Schools, Learning Nation'. The aim was to 'provide a platform for the exchange of ideas, including current and future thinking on technology in education' (*EdTech 99 Programme*: 2):

The Masterplan [for IT in education] is integral to innovation in the education system to meet the challenges of the 21st century. IT will be used to help equip our young with learning skills, creative thinking skills and communicative skills.

The explicit introduction of ICT into the curriculum in 1997, for example, can be seen as a particular strategy to administer and negotiate such practices around which Intelligent Island discourse is constructed:

In the tertiary institutions, all students, *irrespective of their disciplines*, should be given the necessary literacy programmes to enable them to use application packages as their learning tools as well as for personal support purposes such as word processing. (*National IT Plan*: 48)

It should be stressed that it is *not* the case that the state is 'forcing' the use of computers and ICT onto students but that strategies have been employed to appropriate the radical force of such technologies, many of which have already been embraced by the young at an everyday, non-discursive level. Indeed, we may suggest that given the global trends in ICT, such programmes

deployed by the government involve a complex negotiation between the economic 'necessity' of state objectives and the everyday practices of Singaporeans.

This practice of a particular kind of citizenship, what we might call the 'eCitizen',⁸ in Intelligent Island discourse, and the inducement of self-regulating practices starts with the educational system:

You can only have a learning nation when you start with thinking schools – through *self-directed* learning...IT will promote critical and creative thinking.

With the introduction of IT, the role of the teacher has changed...she is no longer the information-giver but a facilitator. Sometimes children can gather a lot more information – IT encourages cooperative learning, *self-directed, independent* learning. The children can learn at their own pace.... *Every child has a part to play in contributing to education.*

(Vice-principal of a local primary school)⁹

The disciplinary functions in Intelligent Island discourse are, however, dual-sided – they simultaneously repress and enable, disperse and organise. It is this dual-sided process which organizes individuals into certain formations while severing them from others:

...the traditional classroom way of training would be hard pressed to meet this demand. This is especially so considering the complex resource scheduling needed to accommodate different paces and styles of learning in the schools and a diverse population of working adults, with many home, social and leisure commitments. (*A Vision of an Intelligent Island*: 26)

Even so, while the onset of ICT poses 'hard questions for an Intelligent Island' (Choo 1997:63), the eCitizen in Intelligent Island discourse is also empowered because ICT can be exploited in 'enhancing the potential of individuals', for example, through

- multimedia learning
 - interactive distance learning
 - an extension of our media and cultural institutions
 - extra help for the disadvantaged
- (*A Vision of an Intelligent Island*: 25-30)

According to one informant,

The technology does allow you to work faster. For example, I can do work while I'm commuting and that saves me a lot of time. But there's also the added stress...faster response time is expected from everyone. Like how I have to clear at least 80 e-mails a day!

Thus, the idea of Singapore as an Intelligent Island works around a different organisation of movement in space and time, within and without the 'workplace'. While Intelligent Island discourse represses certain formations, for example a refusal or inability to utilise such technologies, its disciplinary functions also produce new categories (the idea of the 'eCitizen', the 'wired city'), new perspectives and worldviews (a utopian view of a high technology urbanity), new strategies of social organization (telecommuting, flexible working hours), and new practices of self-regulation.

The Problematic Postcolonial Subject

The position of Intelligent Island discourse in a globalising, postcolonial 'condition' is a complex and conflictual one, which, more often than not, obscures the position of the subject *in* discourse. As with most discursive analyses, the question of the subject is an ambiguous notion at best. I have attempted to address this issue by emphasising that power relations and discourses are not unilaterally inhibiting but also productive and affirmative. New perspectives and new ways of doing things are produced with the appropriation of certain information-communications technologies. Furthermore, I suggest that the question of the subject and his/her cultural practices in Intelligent Island discourse are constantly being negotiated and redefined – governmentality is precisely this strategy/technique of reconciling state aims and objectives with individual and cultural practices.

Thus, Alan Sheridan's statement that 'Discourse is not about objects: rather, discourse constitutes them' (1980:98) should be problematised. Of course, discourses seek to constitute categories and objects but these strategies can only be said to be partially successful given the debates about notions of resistance and non-discursivity (Dreyfus and Rabinow 1983:205-7; Laclau and Mouffe 1985:107-110). Consequently, we might suggest that the limits of Intelligent

Island discourse encompass two dimensions – (i) when discourse is taken to its limits, and (ii) the limitations of discourse. These dimensions point to future possibilities for research.

Non-discursivity

The question of the subject in postcolonial Singapore is a problematic one in Intelligent Island discourse precisely because the subject is not completely ‘constituted’ even though s/he is invested by these discourses – there are always grey areas which discursive articulation does not and cannot account for. While Laclau and Mouffe (1985:107) reject the distinction between discursive and non-discursive practices, this is untenable when we consider Singapore as Intelligent Island since their methodological tools are not refined enough to map and traverse the disjuncture between what is being said about the Intelligent Island and the actual, cultural practices of individuals. That is to say, Laclau and Mouffe fail to adequately consider the non-discursive dimension and/or its relation to what is articulated in discourse.

Further, Foucault’s ‘history of the different modes by which, in our culture, human beings are made subjects’ (1983:208) unfortunately glosses over his discourse-determinism (Dreyfus and Rabinow 1983:79-100) and any lucid treatment of the question of the subject and agency in late modernity.

Resistance (to) Discourse

I have argued in the preceding sections that Intelligent Island discourse is not merely about ‘technology’ but rather is invested by broader strategies of nation-building and specific programmes of discipline and human resource mobilisation. The problem of a non-discursive dimension which is in tension with discourse on Singapore as an Intelligent Island then brings up questions of resistance: Is there an intelligible matrix of resistance discourse to Intelligent Island discourse? Or are forms and practices of resistance basically scattered and dispersed? Indeed, is the need for resistance or alternatives already pre-empted in Intelligent Island discourse?

In describing modernity as an 'unfinished project', Habermas (1987) has depicted how increasingly complex and differentiated social systems have come to dominate and colonise the lifeworld of individuals. The articulation and practice of resistance to Intelligent Island discourse can be interrogated with a view to this perspective, perhaps through how system and lifeworld can be reconciled in a postcolonial Singapore grappling with the conditions of late modernity, globalization and technocapitalism.

Notes

¹ It has been appropriately noted that the term 'postcolonial', most often used to mark the era initiated by formal decolonisation, sometimes underappreciates the real continuities between the colonial period and its immediate aftermath. However, the 'decline of the *order* of nation-states made visible in global environmental problems and regulations does indeed appear to signify a fundamental shift that might justify the use of the "post" as a temporal marker' (Gupta 1998:22-3).

² Benedict Anderson warns, however, that Gellner tends to associate invention with falsity rather than with imagining and creation. Anderson views nations, in his all too famous phrase, as 'imagined communities' – in the sense that they are systems of cultural representation whereby people come to imagine a shared experience of identification with an extended community. 'As such, nations are not simply phantasmagoria of the mind but are historical processes through which social difference is both invented and performed' (Anderson 1983:353).

³ Indeed, Robertson contends that 'the concept of globalisation had involved the simultaneity and the interpenetration of what are conventionally called the global and the local, or – in more abstract vein – the universal and the particular' and argues that the term 'glocalisation' (1995:30) would be more appropriate, to the extent that the local is not best seen, as least as an analytic or interpretative departure point, as a counterpoint to the global – 'Indeed [the local] can be regarded...as an *aspect* of globalisation' (1995:30).

⁴ Indeed, the development of the sovereignty of the modern state from its beginnings depends upon a 'reflexively monitored set of relations between states' (Giddens 1985:256) and can be conceived to be "guided by increasingly global norms concerning its sovereignty" (Robertson 1990:23). However, Robertson certainly suggests that there is general autonomy and logic to the globalization process which operates in *relative* independence of strictly societal and other more conventionally studied sociocultural processes (1990:28).

⁵ This effectively means all Singaporeans who own a phone.

⁶ It should be noted that issues of ethnicity and gender are largely absent from Intelligent Island discourse. Unlike the case in Malaysia where the question of technology had to be reconciled with 'Malay-ness' (see Bunnell 1999a, 1999b), Intelligent Island discourse sidesteps such issues by depicting utopian scenarios that encompass all of the populace. In fact, the categories of persons and things 'produced' in discourse can be understood to be completely new and this severs whatever negotiations with 'history' that other postcolonial states might have face in the process of nation building and defining national identity. Intelligent Island discourse can subsequently be said to produce a social ontology of what there is by constituting new categories of such persons and things. These categories then serve as both 'exemplary spaces' and 'moral geographies' in normalising the discourses and practices of Singaporeans with recourse to a rhetoric of utopianism.

⁷ Pierre Bourdieu's emphasis is on the processes of categorisation, on symbolic power as the power of 'world-making': 'Through the distribution of properties, the social world presents itself, objectively, as a symbolic system which is organized according to the logic of difference, of differential distance' (1990:132). This logic of difference – the 'inside' and 'outside' – is discursively represented in Intelligent Island discourse as such.

⁸ The term 'eCitizen' is derived from the official government website [www.ecitizen.com.sg] which allows Singapore citizens to register, to fill out their essential forms, and suchlike, online.

⁹ This particular primary school was one of the ten IT implementation schools chosen to operationalise Phase I of the IT Masterplan for education. The basis of Phase I, which was initiated in 1997, was for the gradual integration of information-communications technology into the school curriculum. According to my informant, teachers are 'encouraged' to conduct at least 20% of all lessons with the use of information-communications technology, with the aim of reaching a 30% ICT usage by the year 2002. ICT workshops are carried out where teachers' performances are assessed and evaluated. It is interesting that such workshops are conducted for the *parents* of the students as well to 'enable them to understand the nature of the schoolwork their children are undergoing'. Subsequent phases of the IT Masterplan in education depends on the diffusion of knowledges and learning experiences from these initial ten schools to other schools and educational institutions.

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