Auto-regulating new media

Strategies from Singapore’s Internet policy

Terence Lee

The sheer pervasiveness of the Internet makes it impossible for even the best-intentioned of regulators to keep out. Such issues as privacy, consumer protection, intellectual property rights, contracts and taxation cannot be left entirely to self-regulation if e-commerce is to flourish. The real question, alas, is not whether to regulate the Internet, but how. ('Vital Alternative', 2000, June 12, p. 15)

ABSTRACT

Using Foucault's (1977, 1978) notion of a panoptic method of governmentality and looking at the case of Singapore's Internet policy, this paper attempts to expand on the idea—and ideals—of 'auto-regulation' (Lee, 2000, pp. 4-5; Lee & Birch, 2000). Auto-regulation, as I shall posit in this paper, provides a way for regulatory enforcement and surveillance to become sufficiently transparent and 'normalised' so that 'the exercise of power may be supervised by society as a whole' (Foucault, 1977, pp. 207-208) rather than by a select group of policy and law enforcement officers, or civil society/activist groups.

INTRODUCTION

Tom O'Regan, as Director of the Australian Key Centre for Cultural and Media Policy, recently noted that media regulation, which now encompasses both the old and new media, is headed towards 'normalisation' (2000, p. 5). According to O'Regan, whether we sheet this transformation home to convergence, the impact of the 'networked society', models of the new (knowledge) economy, globalising pressures to internationalise and harmonise regulations, proliferating platforms and media, or the uptake of competition policy on our thinking, the general direction is to normalise media regulation. (2000, p. 5)
'Normalising' media regulation not only alludes to a one-size-fits-all approach to the global mass media, it also gives the impression that convergence is driving media policy-makers to the edge of their seats as it is no longer possible to talk about regulating just one medium in isolation. 'Normalising' also contends that policy-making is leaning more and more towards the orientation of the mass market. By facilitating market ideologies, media players can continue to access the most fundamental element of all commercial operations—funding—while at the same time fulfill the quintessential demands of control and government via self-regulation (see Thompson, 1997a, 1997b). Self-regulation, for most of the last two decades, has been the 'normalised' mode of media regulation.

Self-regulation—whether carried out by the industry or by the individual—is a tricky concept indeed. It hovers precariously between a libertarian 'free-for-all' mindset and an authoritarian 'by-the-book' mentality. Yet it is a concept that sells because it appears to satisfy those who prefer to operate under free-market bases and the libertarians who believe that self-regulation is a step closer to the much vaunted state of deregulation, or perhaps even absolute freedom (Lee & Birch, 2000, p. 160). Self-regulation, which shifts the onus of cultural choice to the consumer, appeals to three primary groups of people: the individual, the non-governmental group, and the state. It appeals to (and appeases) the pro-choice individual citizen, even the ones who profess to reside on high moral ground. It also appeals to non-governmental organisations such as media interest groups, who often claim the right to act as industry and/or societal watchdogs. At the same time, governments and statutory authorities are happy to embrace self-regulation because it frees them from the onerous and thankless task of continuous monitoring and policing, a task that is becoming more and more difficult—though not impossible—to carry out (Ang, 1998, p. 12). Above all, 'self-regulation' is a pleasant catchphrase that looks good on any public relations statement, especially those emanating from government departments or regulatory authorities.

Willy-nilly, self-regulation—and its more participatory form of 'co-regulation'—has become the sine qua non of contemporary media and cultural regulation. Although most democratic and/or democratising societies support some form of media regulation, I would suggest that self-regulation is but a stepping stone to a new and more permanent mode of regulation: auto-regulation.
REGULATION AND THE INTERNET

Regulating the media of communication, of which the Internet has become a distinct part, is mostly deciding who has access to a medium and what information in the form of content may (or may not) be communicated on it (Michael, 1990, p. 40). This implies that there are rules governing the whole process of deciding what may, or more accurately, what must or must not be, communicated by voice, in print, or by electronic means. In this light, the concept of censorship, often perceived as draconian by libertarians, is unmistakably a mode of regulation. Such rules are usually justified or rationalised by authorities claiming to represent the conservative majority, thus making the practice of media regulation always cultural, always value-laden, and always political.

Media regulation is cultural because the choice of what images or sound to broadcast over the air or via cables affects the way of life of everyday citizens as users of the media. Likewise, the much maligned practice of censorship involves not only the decision of what to exclude or block, but also opens the channels of (inter)cultural access and transmission with that which is permitted. The corollary is that media regulation is always value-laden as it serves to relay meanings, thoughts, morals, and societal values to the masses (Slevin, 2000, pp. 214-215). As Lumby points out:

The media is the foundation of our public conversation today. And, like democracy itself, it can sometimes seem like a Tower of Babel. But it also offers moments of unexpected convergence, media events which draw us as a local, national or global community and give us a forum for thinking about our differences and our claims to identity. (Lumby, 1999, p. 188, my emphasis)

For the above reasons and more, the regulation of the media as 'a forum for thinking about our differences and our claims to identity'—therefore, as and of culture—is necessarily political, with government leaders, media critics, and activists perpetually deliberating on whether to de-regulate, re-regulate, self-regulate, or co-regulate various media. As Thompson cogently notes, it is 'an arena of intense argument, debate and contestation' (1997a, p. 2).

The advent of the Internet, or more appropriately the World Wide Web, as a medium of mass communication to the developed and advanced developing countries in the early 1990s was warmly heralded by (aspiring) libertarians (Hargittai, 2000). To these people, including those living under authoritarian regimes, the Internet is ungovernable
and previous policy/ing mechanisms for traditional media would eventually be made defunct. In a recently published book entitled The Internet and Society, Slevin voices the thoughts of such people:

Efforts to regulate the internet ... are destined to flounder because cyberspace is inherently global and pliant, allowing individuals and organizations to evade authorities by slipping into anonymity and by retreating beyond the bounds of their jurisdictions. (Slevin, 2000, p. 214)

The case of the 'love bug' virus, which affected many global computer networks including the United States Pentagon and the British Parliament in April 2000, and subsequently led to the arrest of a computing student in the Philippines following high-tech tracking by the Federal Bureau of Investigation (FBI), suggests that the Internet may not be as liberating as it seems. On the contrary, the Internet enables enhanced surveillance techniques and tactics, making policing online more complex, but also more effective than offline monitoring. For example, digital certificates, one of the key agents of e-commerce, will allow consumers to embed verified information about themselves in their web browsers. This data would then be shared with other computers as the user navigates and interacts with the online world, thus facilitating the work of cyber-police in clamping down pornography and piracy, tracking hackers, and enhancing the security of electronic transactions (see Shapiro, 1999, pp. 19-20). In short, identification technologies are quickly arriving to challenge the notions of 'ungovernability' and online anonymity.

Nevertheless, there is little doubt that the Internet—along with the preceding multi-channel satellite and cable television services—has forced governments to rethink their media policies of content, control, access, ownership, and other critical issues. The Australian response—also applied to the Internet at the beginning of the new millennium—has been to institute industry self-regulation by providing media players and service providers with guidelines and/or codes of practice/ethics/conduct that they must unreservedly adhere to (Lindsay, 2000, pp. 19-20; 'Australia to Curb Access,' 1999, March 27, p. 22). With industry self-regulation 'normalised' and in place, the regulatory body takes on a more supervisory role, intervening only when it is time to review codes and/or legislations, or when it is required to adjudicate public complaints. David Flint, Chairman of the Australian Broadcasting Authority, prefers to call this system 'co-regulation' to remove the ambiguities of 'self-regulation' (Flint, 1998, p. 12). Whatever the name may be, the popularity of industry self-regulation or co-regulation, for reasons highlighted earlier, means that it has become the zeitgeist of
media and internet regulation not just in Australia, but all around the world (Ang, 1998, p. 12). The explosion of the Internet as the epitome of globalisation is a clear signal that other pressing issues such as cross-media ownership and the values of cultural diversity and of local (Australian) content vis-à-vis acquired programs will need to be addressed when digital broadcasting comes on board.

Even though Internet self-regulation is widely applied, Slevin argues that it is inherently conflicting and therefore unworkable in the longer term, given what he perceives as 'the conditions of reflexive modernization' (2000, p. 225). Slevin’s contention is that self-regulatory codes do not—and cannot—take into account the many different cultural perspectives and interests brought about by the diverse range of participants in the contemporary digital media world. He contends that regulators cum policy-makers would do well to pursue Thompson’s principle of regulated pluralism, which seeks to promote diversity and pluralism, as well as maintain the media’s independence in the sphere of communication by the establishment of an institutional framework that ensures that these are not undermined by the pre-eminence of economics (Thompson, 1995, pp. 240-241). As Thompson explains:

The principle [of regulated pluralism] calls for a deconcentration of resources in the media industries: the trend towards the growing concentration of resources should be curtailed and the conditions should be created, as far as possible, for flourishing of independent media organizations. (1995, p. 241)

By media independence, Thompson is really emphasising the importance of having a ‘clear separation of media institutions from the exercise of state power’ so that freedom of speech would not be curtailed. For such a separation to work, there need to be independent supervisory or watchdog bodies created by government to watch over the performance of the system, that is, to ensure that freedom, along with pluralism and diversity, is continued (Slevin, 2000, p. 218).

Slevin’s advancement of Thompson’s principle of regulated pluralism as the model to be adopted for the regulation of the new media is at best, insofar as practicality and practicability is concerned, a utopian state of affairs. Moreover, it suggests a course that is already/has been in action for a good amount of time, albeit with little success in terms of attending to all wants and needs. Like regulated pluralism, self-regulation—in places like Australia and Singapore—operates as a space between market and state with a view towards cultivating diversity and pluralism (Thompson, 1995, p. 242). Like regulated pluralism, self-regulation aims to allow the media to behave autonomously—even inde-
pendently—but within the confines of the law and applicable codes. But because of the very fact that most societies are pluralistic, the desires of people are so diverse that they often become incoherent, and, as a result, insatiable, to the extent that governments have been, and are still, grappling with the ideal method of regulating the media, particularly the new media led by the proliferating Internet. As a contribution to the debate, I would like to conduct a hypothetical examination of Singapore’s approach towards Internet policy, where ‘policy’ is about the sustenance of a workable balance between regulation (as control) and promotion (as ensuring commercial viability).

**Singapore’s Regulatory Mindset**

Paradoxical though it may seem, Singapore’s rapid economic growth and increasingly sophisticated market development have coincided with more effective government control of the media—not just the local, but also the foreign media (Rodan, 2000, p. 219). In spite of Singapore’s notoriety for excessive control and strict censorship regimes—such as the oft-ridiculed ban on private satellite dishes—Singapore is on its way to becoming a major media and info-communications hub. At the time of writing this paper, there are no fewer than 17 licensed satellite broadcasters and 20 production companies headquartered in Singapore. In addition, 5 international broadcasters, including ESPN Star Sports, MTV and CNBC, are actively engaged in production activities in Singapore (Leong, 2000). Apart from the government’s pro-business incentives (top of the list being generous tax concessions), the key reason for such media vibrancy is Singapore’s world-class info-communications infrastructure.

At the end of 1999, Singapore attained the status of ‘intelligent island’ with all 750,000 households on the island effectively connected to a S$600 million hybrid fibre-optic coaxial network (Rodan, 2000, p. 221; Lee & Birch, 2000, pp. 151-152). This network, the result of an IT2000 master plan spearheaded by the National Computer Board (1992), not only allows for the delivery of cable television via the government-owned Singapore Cable Vision (SCV) (and the crystal-clear reception of all free-to-air television channels due to the Singapore Broadcasting Authority’s must-carry policy), it also makes every home ready for Singapore ONE (One-Network-for-Everyone), Singapore’s much-vaunted broadband interactive site, which promises a host of audio cum video services, including high-speed internet access. In addition, cable telephony is on the horizon following SCV’s recent grant of Singapore’s third public telecommunications licence (Divyanathan, 2000; Low, 2000). It is interesting to note that, while many in the world...
are lamenting the ever-widening gap between the information haves and have-nots, Singapore is ambitiously preparing for e-commerce, touted as the next phase of the dot.com era. The broadband cabling of Singapore’s Central Business District (CBD), the shopping belt of Orchard Road to Suntec City and the Science Park area, was set for completion by the end of 2000 (Oo, 2000). Singapore would then be fully wired, fully ‘dot.com’d’, and e-commerce ready.

Although undeniably technologically sophisticated, media and cultural gatekeepers in Singapore are keenly aware of the ‘limits’ of regulation. Like most other developed nations, media self-regulation is widely propagated, though not in terms of granting independence via editorial freedom. It is, by now, common knowledge that the Singapore media’s central role and duty is to be the Government’s mouthpiece (Birch, 1993, pp. 21-22). The concern of self-regulation is not so much about whether the media would step out of line, but that local media companies, primarily the government-backed Singapore Press Holdings (SPH, publisher of Singapore’s main dailies) and the Media Corporation of Singapore (MCS, the national television and radio broadcaster), would lose their profitability and competitive edge amidst global competition while serving their ‘national’ duty. As a result, the Government has moved to consolidate their positions within the industry with the recent announcement that both SPH and MCS would be allowed to move into each other’s core business territories, that is, SPH would operate television channels and MCS would be granted a licence to publish newspapers. Concomitantly, both companies will move aggressively into Internet businesses (Singapore Government, 2000).

In trying to shake off Singapore’s nanny-state image, the Government recently voiced its concern that Singaporeans have conformed with its traditional cultural policy framework of censorship—even political self-censorship—so much so that human creativity and entrepreneurial spirit, the very talents and skills of the new economy, are gradually fading into oblivion (see Birch 1996, pp. 207-209). As such, certain measures are now in place to ‘market’ the positive attributes of creativity and risk-taking, all for the sake of staying ahead in the new economic arena. As an indirect part of encouraging creativity, the role/concept of censorship in Singapore has shifted from one of ‘government controlling of information flows’ within a geophysical space (Yeo & Mahizhnan, 1999) to one that is marked by the idea(ies) of creating a balance between maintaining a morally wholesome society and becoming an economically dynamic, socially cohesive and culturally vibrant nation (Censorship Review Committee, 1992, p. 19).
Evidently, such a censorship 'balance', as defined by Singapore's Censorship Review Committee (1992), a government-appointed ad hoc body, is sufficiently broad for it to remain applicable through time and all forms of mass media. Yet, it has been (quietly) announced that a new censorship review is currently being carried out to make censorship relevant to contemporary situations. As Levander of The Asian Wall Street Journal notes, the review should yield 'incremental reforms' with a 'lighter touch' approach expected (1999, September 1, pp. 1, 9). What does this 'lighter touch' approach entail in the Internet age and how incremental would censorship reforms be? To broach this and other critical questions, I propose that one needs only look as far as the Singapore Broadcasting Authority's Internet policy.

SINGAPORE'S INTERNET POLICY: AN AUTO-REGULATORY FRAMEWORK

The Singapore Broadcasting Authority (SBA) is empowered by its Act of 1995 to regulate Internet content. SBA's Internet policy comprises a set of Industry Guidelines on the Singapore Broadcasting Authority's Internet Policy (1997a), an Internet Code of Practice (1997b), and a Class Licence scheme (1996). The Industry Guidelines document explains the main features of SBA's Internet regulatory policies and, as the name suggests, spells out the rules for Internet service providers (ISPs) and Internet content providers (ICPs) operating in Singapore. Although the Internet Code of Practice is highlighted briefly within the Industry Guidelines, it is essentially a separate document specifying details of certain do's and don'ts. Most noteworthy is the extensive definition of 'prohibited material' as 'material that is objectionable on the grounds of public interest, public morality, public order, public security, national harmony, or is otherwise prohibited by applicable Singapore laws' (SBA, 1997b, item 4(1)). What at any time constitutes 'public' is not, and perhaps cannot be, clearly defined. As many critics have pointed out, policy/political terms in Singapore are not transparent nor open to discussion (see especially Rodan, 2000; see also Lee & Birch, 2000; Yao, 1996).

To further strengthen the aims of regulatory enforcement, a blanket Class Licence scheme is applied to all ISPs and ICPs so that all who put up any content on the Web are automatically licensed without the need to actually apply for one. The only exception, for obvious political experience, is that any website seeking to promote political or religious causes must pre-register (Lee & Birch, 2000, p. 160). The Class Licence, as an example of a 'light-touch' self-regulatory apparatus, is proudly referred to by SBA and ministerial bodies as an 'automatic licensing framework' (SBA, 1997a, item 5). Herein lies one of the key strengths of...
'auto-regulation': by creating an 'automatic' mode of licensing, a panoptic sense of power and subjection is instilled automatically (Foucault, 1977). Internet users and service providers would thus (be expected to) comply with self-regulatory guidelines—either willingly or grudgingly, or perhaps via an ambivalent combination of both. Irregardless, minimal supervision is needed by the authorities to make auto-regulation work.

The SBA website summarises Singapore's Internet policy thus:

SBA recognises the ability of the Internet to offer unique opportunities and benefits, and strives to adopt a balanced and light-touch approach towards encouraging a healthy environment for Internet to thrive. Its aims is [sic] to develop and harness the full potential of the Internet while at the same time, maintain social values, racial and religious harmony. SBA aims for minimal legislation and greater industry self-regulation and public education so that users are empowered to use the Internet for its benefits. (from SBA website, cited in Lee & Birch 2000, p. 157, my emphases)

The idea of maintaining a 'balance' is again employed here, but this time it is used alongside the concept of a 'light-touch approach'. This suggests that a light-touch, or the aforementioned 'lighter-touch' approach, like the notion of censorship in Singapore, is about maintaining a balance between being pro-business and being socio-politically sensitive to the community (read: Government). As Singapore's society is founded upon the principle of '4Ms' a la multiracialism, multiculturalism, multilingualism, and multireligiosity, Singaporeans are compelled—by law—to respect and live harmoniously with all races and religions. In addition, the Government has warned that private individuals as well as the media should not engage in politics unless they are prepared to be publicly cross-examined.

In essence, SBA's light-touch regulatory approach simply states that the authorities would be slow(er) to incriminate when its rules or the laws of the land are breached, thus giving the offender a chance to rectify (Lee & Birch, 2000, p. 158). But as cited in the above statement, the concept of 'minimal legislation' is also invoked to suggest the malleability of codes governing the rapidly evolving nature of the Internet. However, it is worth highlighting that both 'light-touch' regulatory style and 'minimal legislation' do not suggest that all online violations would be conveniently overlooked. The Internet is also subject to Singapore's traditionally strict laws that apply to all media. This includes the ambiguously defined Sedition Act 1964, which 'prohibits any act, speech, words, publications that have a seditious tendency' where to 'excite disaffection against the Government' would be tantamount to
seditious (Tan & Soh, 1994, pp. 43-44; see also Birch, 1993, pp. 17-19). Clearly, it is not at all difficult to fall out of line, especially when one is 'online'.

Furthermore, SBA's ability to maintain a clean record of policy adherence owes a great deal to several incidents in the brief history of the Internet in Singapore. I shall relate a few to illustrate the auto-regulatory framework. As early as 1994, the year when public Internet access was first made available through SingNet (Singapore's first public ISP), at least two scans for unlawful pornographic materials and viruses were reportedly conducted on users' e-mail accounts (Levander, 1999, p. 9). In November 1998, the local Straits Times daily reported that a section of the Police Force is tasked to 'patrol the alleys of cyberspace' to keep hackers and other cyber-crimes at bay (Lee & Birch, 2000, p. 159). More recently in April 1999, SingNet was (again) found to be conducting unauthorised scanning of its subscribers' Web accounts, supposedly for deadly viruses. This particular case made the headlines because the Ministry of Home Affairs (parent ministry of the Police Force) was involved, leading to SingNet issuing a mass apology (Rodan, 2000, p. 238; Lee & Birch, 2000, p. 159).

Although SBA has repeatedly stated that it does not monitor users online (Lee & Birch, 2000, p. 149), the fact that significant public attention was given to these 'scan-dals' speaks volumes about the immense power of auto-regulation. Whether or not actual file-searching or monitoring is/was carried out becomes irrelevant in an auto-regulatory climate. The demonstration of a government's technical capacity is far more potent. Indeed, auto-regulation hinges on an ideology of control and surveillance with the sole aim of producing law-abiding, self-regulated, and, therefore, useful citizens—what Foucault calls 'docile bodies' (1977, p. 138). Although SBA has not been implicated in any of the above incidents, it has been a major beneficiary insofar as compliance with its Internet policy/guidelines is concerned. With the welcomed addition of statutory power to define regulatory terms and conditions, SBA could then go on to advocate industry self-regulation in an enlightened and seemingly unproblematic fashion.

Yet, the SBA is not as innocuous as it seems. Perhaps the most significant auto-regulatory tactic employed by the SBA since October 1997—in conjunction with the release of the aforesaid Internet Code of Practice—is the gestural blockage of 100 pornographic sites via the proxy servers of ISPs. SBA's rationale for banning or, indeed, censoring, these 100 smut sites is to reaffirm the conservative (read: Asian) values of Singaporeans, hence a gesture of pastoral care and concern (Tan,
1997, p. 27). Even in the face of public and international condemnation, the majority of Singaporeans, arguably well-schooled in the art of portraying conservatism through surveys and the like, supported the move as a morally desirable one. This mode of gestural censorship exemplifies auto-regulation par excellence. This measure worked not only to draw public attention to its new guidelines and codes (which were announced at around the same time), it also reaffirmed the means by which the government of Singapore is able to enact the ideology of ... social control of the public sphere, demonstrating the means by which the habitus of controlled behaviour is still reinforced and able to be reinforced in Singapore. (Lee & Birch, 2000, p. 149)

CONCLUSION

SBA has been quick to point out that the Internet regulatory framework that currently exists has been developed in consultation with the 'industry' (SBA, 1997a). This does not, however, negate the powerful perceptions that a panoptic mode of surveillance continues to dominate in Singapore—if not physically, then ideologically. Auto-regulation is therefore about setting a panoptic mechanism within the framework of policy/ies to induce 'a state of conscious and permanent visibility that assures the automatic functioning of power' (Foucault, 1977, p. 201, emphasis mine).

Moreover, auto-regulation works because the enclosed nature of a panoptic regulatory supervision 'does not preclude a permanent presence from the outside' (Foucault, 1977, p. 207). In other words, the public is always welcome to scrutinise the guidelines/codes (by downloading them from government websites) and examine other functions of surveillance (by visiting the authorities and interviewing policy officers), all of which are held within the 'central tower' of the panopticon. As a consequence, the government can, and does, lay claims to being objective, consultative, and transparent (see Rodan, 2000). Thus, the regulatory role of policing strengthens rather than weakens. Auto-regulation, like the panopticon, becomes as Foucault notes: 'a transparent building in which the exercise of power may be supervised by society as a whole' (1977, p. 207).

The public aims of media authorities around the world are mostly to ensure pluralism and diversity in program structuring and to maintain social equity of access and affordability. With the increased integration of communication technologies brought about by the Internet and digital media as a whole, coupled with the widening disparity in terms of access to information, Thompson’s (1995) principle of regulated plural-
ism, although somewhat idealistic, remains relevant in contemporary situations. But with governments wanting also to exact political influence and exercise control over their citizens (as subjects) without appearing too authoritarian or totalitarian, there needs to be a certain degree of hold over the ever-powerful media.

The concept of self-regulation, for reasons highlighted in my introduction, fits perfectly into the mould of apparent or controlled freedom. But self-regulation, also in the guise of co-regulation, with the endless co-applications of legislations, codes, and other guidelines is at worst, a misnomer, and, at best, a temporary solution. Governments around the world, both liberal and illiberal, are under increasing pressures to demonstrate their abilities to fulfil the basic task of governing, especially in the digital and/or Internet age. Australia has, enduring much protest, successfully introduced legislation to prevent or hinder access to certain kinds of Internet content (Lindsay, 2000, p. 19). In Britain, a ‘Regulation of Investigatory Powers Bill’ was recently passed to allow the government to monitor Internet activities (‘Britain Wants Bill,’ 2000, June 6). As the world inches towards e-commerce, it is certain that more of such legislations will be enacted.

This is where auto-regulation comes in. While I do not necessarily espouse the merits or workings of auto-regulation, I suspect the auto-regulatory framework employed by Singapore in the cultural and ideological management of the Internet and other media holds tremendous potential for expansive adoption and/or adaptation—not just in communist or illiberal countries like China, but also in liberal democracies like Australia. For whether one likes it or not, policing tendencies are here to stay. Or, as Foucault puts it, ‘surveillance is permanent in its effects, even if it is discontinuous in its action’ (1977, p. 201).

REFERENCES

Australia to curb access to offensive Internet sites. (1999, March 27). The Straits Times [Singapore], p. 22.


Britain wants bill to monitor Net activities. (2000, June 6). The Los Angeles Times, in The Straits Times Interactive [Singapore].


Leong, S. (2000, June 10). Singapore is all set to be a major media hub. The Straits Times Interactive [Singapore].


Oo, G. L. (2000, June 10). Fibre-optic networks to be ready by year's end. The Straits Times Interactive [Singapore].


Tan, J. (1997, November 2). Banning of 100 smut sites more a gesture of concern. *The Sunday Times* [Singapore], p. 27.


