
Can the Internet Promote Open Global Societies?

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The Internet has been proclaimed and cursed as a necessary but too expensive building block for modern development. Disparities in access to Internet infrastructure (networks, servers, and computers) and in the skills necessary to use the Internet have become yet another gap between have and have-not nations—an alleged “digital divide” for which massive investment in the physical and human capital of the have-nots has been suggested as a remedy.¹ For example, China’s president Jiang Zemin has declared publicly that the melding of the traditional economy with information technology will drive China’s economic development in the twenty-first century.

Along with this profession of faith in information technology, however, comes Chinese political repression and the control of what China’s leaders perceive to be a multitude of abuses by its citizens and foreigners (Kalathil and Boas 2001). Many nations—and not all repressive ones—are following the Chinese lead in expanding their regulation of the Internet, fearing both political challenges and social disruption. The guiding principle behind these efforts seems to be that the Internet can be bolted mechanistically onto existing economic institutions, thereby creating more economic value while simultaneously preserving political and cultural autonomy.

Getting such an outcome, as we shall see, is quite a trick. The Internet’s power as a communication tool comes in part from its capacity to disrupt the status quo by bringing new knowledge at very low cost to the far reaches of the globe. In reaching for alternatives to local and traditional knowledge, people can upset the operation of local economic, political, and social institutions. Nevertheless, a dynamic process of

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1. New York City alone has more Internet users than all of Africa (U.S. Internet Council 2000, iii).

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sharing knowledge is essential to capitalism, a free society (Hayek 1945), and a robust version of globalization that upholds human liberty.

Thus far, however, widespread claims for and fears of the powers of the Internet, both for economic growth and for social enlightenment (or destruction), have only scant factual basis, even in the developed nations where the network is densely woven and heavily used. In this article, I survey what we know about the deployment of the Internet and its effects in general and across fifty representative nations. This evidence suggests that we are still far from having entered a global “information revolution” and that highly globalized nations (as measured by economic flows) also can be inflexible, uncivil ones. Today the Internet certainly brings us closer together globally, especially in processing basic transactions and in sharing data, and with further innovation and investment we will become even closer. Teleconferencing, for example, will become far more “lifelike”—emotive, personal, and extensively disrespectful of political borders.

Ironically, this more “human” Internet is likely to increase human tensions. For example, the Internet can foster global clans and “network organizations”—small, intimate social and work groups that might be exclusionary (even tribal?) by nature. In general, the Internet as “relationship technology” will create cultural and political threats to the status quo because it offers so many economic, cultural, and political alternatives. After all, no one can be sure how individuals will process and use this torrent of information. Although repressive political regimes may be especially vulnerable to Net-induced change, all institutions—including Western democracies, corporations, religions, and cultures—are at risk.

Thus, many people may not like some of the consequences of Internet technology applications. For this reason, government efforts to regulate Internet use will intensify as public policymakers seek to define appropriate global information sharing for their citizens.

Worldwide Internet Use

After years of rapid growth of the Internet, we now understand some basic characteristics of its use internationally. Table 1 ranks fifty nations according to the percentage of the population using the Internet and provides statistics on that percentage as well as on Internet “hosts” per million inhabitants and gross domestic product (GDP) per capita. All data are for 1998.² The nations listed include the more developed countries for the most part, but a fifth of them have a GDP per capita of less than \$2,000. Not surprisingly, nations with little income have little Internet access or use. These nations, of course, also lack many other elements of infrastructure. As a result, it is unlikely that investments in the Internet or computer training would improve eco-

2. Internet usage has grown substantially since 1998, but insufficient data are available at the nation-state level for a more recent year.

conomic prospects directly in such nations. Among the top ten Internet-using nations, four are Scandinavian, three Pacific Rim, two North American, and one continental European. Among the ten lowest-rated nations on this statistic, five are African, four Asian, and one Middle Eastern.

Income per capita and Internet use are correlated positively. Taking this association to heart, many developing nations have made the building of Internet infrastructure central to their economic growth policies. Although the Internet is arguably a wellspring of economic productivity and growth, the supporting evidence is limited thus far. The reasons for the weak effects are three. First, investments in information and communications technologies have not been globally extensive. Even in developed nations, essential institutional and cultural transformations that would spur Internet productivity have not yet occurred (Brynjolfsson and Hitt 2000). These barriers are far greater for partly developed nations. Second, the Internet remains a modest instrument for much personal communication owing to technological impediments. We cannot (yet) carry out extensive, private conversations globally with high reliability, and such discussions lie at the heart of many future global relationships. Third, governments have basic technological tools with which to control Internet use, albeit clumsily. For example, in many repressive nations, the Internet service providers (ISPs) are either government owned or controlled. Governments' efforts to regulate communications can eviscerate much of the hoped-for economic payoff by reducing the users' control of information. American expectations in the late 1990s for economic growth of more 3 percent per year have been trimmed significantly now in part because of a dimmer view of the sustainable productivity gains from information technology applications. However, it is difficult to deny a connection between investments in information technology and economic output. As a result, many nations view the Internet as an entry ticket to the "knowledge-based" economy. By betting on the Net as source of economic growth, these governments also unleash, often begrudgingly if not unwittingly, the power of the Internet to affect politics and society.

The Social Net

The Internet can be an awe-inspiring conduit for data, but are more "bits" the same as more knowledge? Much of the current understanding of communications relies on information theory. This theory views communication as the transmission of "messages" with some specified degree of accuracy; communication problems in this context arise from "noise," added content, or line failures. Thus, information theory identifies failure squarely with problems in the data being moved. Clean it up, remove extraneous content, and maintain highly reliable delivery, and we will have greater knowledge. Individuals, however, invariably place the information they receive in a social context, attaching personal meaning to it and a sense of social connection to others. To paraphrase Brown and Duguid (2000), all information has a social life. And social status-seeking behaviors loom large in all groups and cultures.

Table 1: Nations Ranked by Number of Internet Users, 1998

<i>Rank</i>	<i>Nation</i>	<i>Net Users as % Share of Population</i>	<i>Net Hosts per Million Inhabitants</i>	<i>GDP per Capita (U.S. \$)</i>
1.	Sweden	39.54	42,816.15	27,705
2.	Finland	28.59	89,268.39	28,075
3.	Canada	24.75	36,929.47	20,458
4.	Singapore	23.71	21,210.68	31,139
5.	Norway	22.56	71,976.53	36,806
6.	United States	22.20	112,796.90	31,201
7.	Denmark	18.86	56,215.81	37,449
8.	Australia	16.00	42,237.75	21,881
9.	New Zealand	15.82	36,126.79	16,427
10.	Switzerland	14.07	34,477.91	44,908
11.	Austria	13.62	221,416.2	30,869
12.	United Kingdom	13.55	24,536.45	20,237
13.	Japan	13.24	13,353.37	42,081
14.	Netherlands	10.19	39,877.69	28,154
15.	Germany	9.14	17,672.80	31,141
16.	Ireland	8.10	15,076.65	23,422
17.	Israel	7.56	19,215.83	15,978
18.	Korea	6.68	4,006.03	11,123
19.	Portugal	6.02	5,617.98	11,672
20.	France	5.95	8,683.54	27,975
21.	Italy	5.21	6,713.09	19,574
22.	Spain	4.40	7,797.62	15,644
23.	Poland	4.09	3,387.99	3,877
24.	Czech Republic	3.89	8,400.39	5,142
25.	Malaysia	3.61	2,157.44	4,251
26.	Greece	3.33	4,745.98	12,069
27.	South Africa	3.06	3,478.09	3,918
28.	Hungary	2.97	9,491.79	4,920
29.	Chile	1.69	2,030.77	4,784
30.	Brazil	1.51	1,296.80	4,509
31.	Venezuela	1.51	340.33	3,499
32.	Mexico	1.41	1,178.97	4,459
33.	Columbia	0.86	397.02	2,392
34.	Peru	0.81	193.14	2,611
35.	Turkey	0.71	770.25	3,167
36.	Russia	0.68	1,243.48	2,138
37.	Argentina	0.55	1,826.99	8,475
38.	Thailand	0.33	335.40	2,593
39.	Ukraine	0.30	393.18	837
40.	Philippines	0.20	122.38	1,092
41.	China	0.17	13.93	727
42.	Egypt	0.16	39.41	1,146
43.	Iran	0.16	3.94	1,275
44.	Indonesia	0.15	75.85	972
45.	Morocco	0.14	73.63	1,388
46.	Sri Lanka	0.11	28.70	802
47.	Tunisia	0.11	1.61	2,283
48.	India	0.05	13.53	444
49.	Kenya	0.05	23.42	334
50.	Nigeria	0.03	3.39	256

Source: International Telecommunications Union 2000.

Although any communication (letter, fax, telephone call, in-person discussion) is subject to misinterpretations and control problems, the Internet is fairly rich in privacy risks owing to the pervasive “broadcast” nature of sending messages across an open and unsecured network. Thus, one of the great strengths of the Internet—low-cost dissemination to vast numbers of users—is a weakness when the communication’s value derives from expected privacy. State-sanctioned snooping chills personal disclosure. In some cases, we might find regulatory oversight appropriate—when, for example, discussions are libelous, foster criminal associations, or contain widely objectionable sexual content. Other media also face these public-policy issues, of course, and the balancing of free speech against other public values poses an always difficult question in the deployment of the Internet (Lessig 1999).

When privacy is broadly jeopardized by pervasive regulation or hacking, however, people limit what they say and cleanse messages of content or intonation that might be objectionable to a wider (uninvited) audience. This self-censorship typically drains considerable content and context from discussions on the Internet. Of course, such drainage is often the regulators’ objective. Objectionable speech might involve sharing racist fantasies or pornographic materials. On the other hand, it might involve sharing aesthetics or aspirations for democratic freedoms. Reducing the risks of undesired Internet behaviors also reduces the opportunities for individuals to articulate ideas that expand personal freedom globally and to engage in many valuable relationships. Offensive behaviors need to be delineated carefully, and political responses need to be limited and not used as the basis for broader regulation of speech.

For better or worse, rapid advances in encryption are making the previously unsecured, open Net a safer place for private discussion. To date, policy concerns about privacy have revolved around the prospects for secure economic transactions. Lawrence Lessig argues, “For e-commerce to develop fully, the Net will need a far more general architecture of trust—an architecture that makes possible secure and private transactions” (1999, 40) That same “architecture of trust” affects social and political discussion. With privacy (the authentication of parties and the confidentiality of messages), much will be shared that otherwise would not be.

Yet even with issues related to privacy unsettled, we are beginning to see social applications cropping up on the Internet, with “virtual” communities connecting people globally. An essential element of these collaborations is that their participants see themselves as bound into continuing relationships. That continuity does not always ensue, but when it does, personal reputations are at stake among the participants, tempering opportunistic behavior. Much useful social interaction can occur with a bit of privacy. In general, the Internet is a promising tool for forging relationships that extend far beyond basic economic transactions. Governments can play a positive role by permitting Internet privacy to expand via sophisticated and effective encryption technology. Governments also can—and often do—play an adverse role by destroying the privacy of messages and regulating information content, often in heavy-handed ways.

The Internet's Impact on Cultures Globally

The Internet certainly can “free” people to interact worldwide with others, but to what ends is often unclear, or when these ends are reasonably clear, they may be unsettling. Many Internet “communities” might be strange and strained creations to many of us, lacking a sense of personal caring among the participants. Perhaps that lack should not always matter, but to some prophets of the Internet these communities are libertarian fantasies, empowering atomistic, role-playing individuals. As unsatisfying as such encounters may seem, they are not unusual in what now passes for social life on the Internet. As Peter Steiner’s *New Yorker* (2000) cartoon puts it, “On the Internet, nobody knows you’re a dog.” Or presumably cares. Although many people may find value in “commoditizing” their relationships and concealing their identities, such behavior is far removed from the genuine human (or even dog) community and the foundation of trust that makes deeper relationships thrive.

Where does this condition leave us, socially speaking? Michael Prowse (2001) describes a battle under way for the Web’s soul, a struggle between atomistic libertarians, who would commoditize everything in the name of self-interest, and the public-good promoters, who would make the Net a public space for collectively sharing and promoting altruistic behavior. This dichotomization of Web outcomes is a caricature. First, everything-for-a-price behavior is already alive and well in most economic marketplaces whether or not the Internet is present—and still we have a broad range of social interactions that richly complement our economic life. Second, having government act as an Internet public-good purveyor and enforcer is problematic: How can government know the public good, independent of the choices individuals make in expressing their own valuations?

Absent such political control, the Web might become a raucous, open, learning community, in which the exercise of personal judgments permits society to advance spontaneously, not by government design. Many who speak euphorically for globalization today do not intend such a liberal sense of the word. Many who speak and act to halt globalization today perhaps have a sounder perspective on the disruptive influences of this freedom that extends worldwide. Their apprehensions ground the argument for (and against) a liberal version of globalization.

Three Internet Scenarios

Consider three scenarios of the Internet’s likely influences on culture: cultural benevolence, cultural warfare, and cultural creative destruction.

In the first scenario, the globally accessed Internet promotes an appreciation and tolerance of cultural differences, and people do not interfere with one another’s underlying culture. Advocates of this view typically take a lack of interference with existing cultures as a virtue. Thus, a problem occurs if those sharing *are* influenced and cultures *do* change. In order to prevent contamination, boundary rules must be

imposed for cultural and technological exchange. Thus, culture can be treated as an entitlement, with rights vested in political authorities who interpret what qualifies for protection from cultural intrusions and who enforce that protection. This normative view—not to influence indigenous cultures unduly—seems to arise frequently in discussions of cultures that are viewed as fragile and easily damaged by dominating, invasive cultures. Some critics find the extension of American popular culture to be distasteful; others suggest that the world might become a better place with the spread of U.S. culture (Rothkopf 1997).

A second scenario is that the Internet can channel conversations into ever-narrowing ideological and cultural niches, each with global reach. Instead of more tolerance—in the sense that people juggle disparate cultural ideas—we will see less sharing and more “globally gated communities” composed of self-interested individuals who share a specific set of values but buffer themselves from other cultural and community influences. The Net, in this scenario, promotes a globalized narrow-mindedness (Shapiro 1999), a Web-enabled selfishness derided by some as cyberlibertarian folly (Weinberger 2001).

The third scenario involves cultural “creative destruction.” It begins much as the first: the Internet can promote valued cross-cultural interaction, but eventually global conversation expands the potential for *both* competition and cooperation among ideas and values, and real changes in cultures are plausible outcomes. “Foreign” ideas, values, and norms can supplant local ones. This view also has a taste of “cultural warfare” to it. Global discussions potentially might reshape long-standing notions of community and culture. The Internet accelerates these conversations, thrusting an abundance of ideas in front of people.

Francis Fukuyama (1999) describes the social process of adapting to environmental shocks (for example, innovations in information technology) as fundamental to maintaining an open society. Not all observers, however, perceive social and political risk taking as warranted, and traditionalists pause before too enthusiastically applauding the Internet, with its capacity for fomenting upheaval. I suspect that for this reason Edmund Burke, like many of today’s social and political conservatives, would not have been enamored of it.

In general, a perspective involving cultural “creative destruction” best reflects the reality of how the Internet will affect cultures in the future. Although some critics worry about the expanded threats of Western cultural “hegemony” to indigenous cultures, *all* nations are likely to face extensive cultural challenges in the next few decades arising in part from improvements in information technology. Nations with well-developed Internet infrastructure, educated and technically adept populations, and institutions that promote social and economic openness will deal with these shocks with far less social disruption than will nations lacking these characteristics.

Nevertheless, the gains from expanded use of communications technologies are greatest on a per capita basis in the partly developed and partly open societies. The

action, as economists say, is on the margin. Consider the many educated people in restrictive nations for whom access to the Internet takes them beyond their indigenous cultures and opens a window to extraordinarily scarce (and valued) cultural and economic options that people in more open nations take for granted. Perhaps we will see the expansion of a globally oriented middle class in places where none has existed, resting in part on Internet communication and community building that spans political borders.

Political Response to Cultural Intrusion

Fearing unsettling cultural intrusions, some leaders have begun to define globalization so that it includes their increasing exercise of political control over the Internet. Such actions are being taken, ostensibly, to guide culture on a “proper” path. As Prime Minister Lionel Jospin of France put it, “Globalization gives a new legitimacy to modern states” (“Geography and the Net” 2001, 43). There appears to be increasing worldwide sympathy among governments for French-style political shaping of globalization by controlling information technology and its uses (see “Globalisation Through French Eyes” 2001). If successful, the French will show that globalization can proceed without much cultural flexibility. Thus, this policy merits consideration. Does substantial political manipulation of the Internet promote personal welfare?

A cynical answer is, “Yes, if you choose to define matters that way.” Although many advocates of globalization believe that increasing openness and understanding among peoples worldwide coincide with increasing globalization, this association need not exist. If a culture is highly regulated—and therefore much personal expression is limited—then an open version of globalization is not necessarily advanced. Thus, because extensive political culture shaping also fits into many definitions of globalization now in vogue, our understanding of the term *globalization* is clouded. It is useful to capture separately several features of international openness and personal freedom that are arguably not necessarily part of globalization.

Evidence on Globalization and Cultural-Economic Flexibility

The Kearney/Foreign Policy Globalization Index

A. T. Kearney, a business-consulting firm, and *Foreign Policy* magazine have devised an index that uses available statistics on border-spanning activity for fifty nations in order to produce an aggregate measure of globalization (see A. T. Kearney/*Foreign Policy* magazine 2001). The measurements apply to four areas: (a) flow of goods and services internationally and the convergence of prices among nations; (b) financial globalization; (c) globalization of personal contacts; and (d) “Internet connectivity,”

a composite of three elements—Internet users per capita, Internet hosts per capita, and the number of secure servers per capita.

Table 2 shows this Globalization Index ranking for the fifty nations analyzed, with Singapore leading the pack and Iran in last place. The index is dominated by economic activities—categories (a) and (b) are purely economic, and categories (c) and (d) are tied significantly to economic use. In general, we know little about specific uses to which the Internet is being put, and we are left to infer that more Internet users, hosts, and secure servers signify that a broader range of global dialog is occurring.

Anecdotal evidence suggests that in most developed nations Internet technology is used first to integrate financial markets and then is applied to managing “supply chains” and organizational information flows. Hence, it might be reasonable to view the Internet so far as a commercial phenomenon. Note that the Globalization Index also is biased toward higher rankings for small, economically developed nations. For example, Singapore ranks first and the Netherlands second because so much that these nations require economically must be acquired internationally. By contrast, the United States is itself a large and well-integrated marketplace, making such border-spanning activity less vital. In general, the Kearney Globalization Index is a useful but limited means of moving debates about globalization beyond rhetoric to real evidence.³

Cultural-Economic Flexibility

As the Kearney/*Foreign Policy* study suggests, our understanding of the noneconomic aspects of the global Internet is far less clear than our understanding of the economic aspects. Although the authors of the Kearney/*Foreign Policy* study argue that a significant aspect of globalization is the spread of culture and ideas, information flow does not necessarily equate to openness, tolerance, and adaptability to change. To deal with these latter issues, I examine what I term *cultural-economic flexibility* (CEF), the extent to which a nation carries out sustained, significant, voluntary individual and group activities without extensive political control. Simply put, a flexible society requires strong underlying civil and private-property rights.

Creating an index at a nation-state level clearly does not do justice to the richness of what might be going on culturally within any nation and across national boundaries, but it can suggest the extent to which governments permit citizens to have access to “foreign” ideas and cultures. For this purpose, a simple CEF measure can be devised and compared to the Kearney/*Foreign Policy* globalization measure for the same fifty nations.

3. The data were collected from a number of international sources, including World Bank 2000, International Monetary Fund 2000, International Telecommunications Union 2000, and Netcraft 2000.

Table 2: Globalization Index Rankings

1.	Singapore
2.	Netherlands
3.	Sweden
4.	Switzerland
5.	Finland
6.	Ireland
7.	Austria
8.	United Kingdom
9.	Norway
10.	Canada
11.	Denmark
12.	United States
13.	Italy
14.	Germany
15.	Portugal
16.	France
17.	Hungary
18.	Spain
19.	Israel
20.	Malaysia
21.	New Zealand
22.	Czech Republic
23.	Australia
24.	Greece
25.	Poland
26.	Chile
27.	South Africa
28.	Tunisia
29.	Japan
30.	Thailand
31.	Republic of Korea
32.	Sri Lanka
33.	Ukraine
34.	Philippines
35.	Venezuela, RB
36.	Egypt
37.	Turkey
38.	Indonesia
39.	Argentina
40.	Nigeria
41.	Mexico
42.	Morocco
43.	Peru
44.	Brazil
45.	Russian Federation
46.	Columbia
47.	Kenya
48.	China
49.	India
50.	Iran

Source: A. T. Kearney/Foreign Policy magazine 2001.

To construct the CEF Index, I combined with equal weight two commonly reported measures of personal freedom evaluated at the nation-state level: the *Index of Economic Freedom* (O'Driscoll, Homes, and Kirkpatrick 2001), reported annually by the *Wall Street Journal* and the Heritage Foundation; and Freedom House's 1999 index of civil liberties, also reported annually, by nation.

Organizations with different philosophical perspectives on freedom designed these measures; their methods are described in more detail in the organizations' reports. Both appropriately call for judgments about the effectiveness with which institutions are functioning to support aspects of voluntary economic and social exchange and the extent to which individuals and private associations can seek alternatives. Thus, any nation can trumpet that it abides by a rule of law and protects human rights, but the extent to which the nation has demonstrated that it has acted to achieve those goals is what counts. For example, evidence of an independent judiciary, civilian control of police, and secure private-property rights can help us understand the degree to which a nation does what it professes to do. The two indexes combined provide a rough sense of actual national openness, both to economic and to social intercourse.

CEF and Globalization

As noted earlier, people often presume that CEF is an integral aspect of globalization. However, government-regulated global Internet communication can expand in a way that reduces private speech to a mere shadow of itself. Because much trade in goods, services, and ideas proceeds on the basis of personal trust among individuals, the CEF Index might be viewed as measuring a necessary condition for building the trust on which many (open) global relationships hinge.

As a starting point, let us accept that CEF (openness) need not be part of globalization, at least as the Kearney/*Foreign Policy* index has defined it. It is informative to set the two indexes side by side and to examine the rankings, as in table 3. Note, for example, that New Zealand ranks first on the CEF Index but only twenty-first on the Globalization Index. The United States ranks second on CEF but twelfth on globalization. Australia, third on CEF, is twenty-third on globalization. Perhaps the most glaring difference is in the rankings for Singapore, which ranks first on the Kearney/*Foreign Policy* Globalization Index yet only thirty-second on the CEF Index.

What are we to make of these differences? New Zealand and Australia, for example, are truly open societies and seemingly are globalized economically. However, they score lower on some elements underlying Kearney's Globalization Index (such as international travel and basic commodity flows) because of high transport costs. On the other hand, both rank highly on Internet use and Internet host measures. One reasonably might conclude that these nations are rich in personal freedoms and motivated to expand their relationships beyond national borders. Spatial separation from much of the rest of the world's population makes the Internet an even more impor-

Table 3: Comparison of Rankings

<i>Nation</i>	Cultural-Economic Flexibility Index Rankings	Globalization Index Rankings
New Zealand	1	21
United States	2	12
Australia	3	23
Ireland	4	6
Netherlands	5	2
Switzerland	6	4
Austria	7	7
Finland	8	5
Canada	9	10
Denmark	10	11
Norway	11	9
Portugal	12	15
Sweden	13	3
United Kingdom	14	8
Japan	15	29
Chile	16	26
Korea	17	31
Germany	18	14
Czech	19	22
France	20	16
Italy	21	13
Spain	22	18
Israel	23	19
South Africa	24	27
Poland	25	25
Hungary	26	17
Argentina	27	39
Thailand	28	30
Philippines	29	34
Greece	30	24
Nigeria	31	40
Singapore	32	1
Sri Lanka	33	32
India	34	49
Indonesia	35	38
Peru	36	43
Columbia	37	46
Morocco	38	42
Mexico	39	41
Venezuela	40	35
Brazil	41	44
Malaysia	42	20
Turkey	43	37
Tunisia	44	28
Ukraine	45	33
Kenya	46	47
Egypt	47	36
Russia	48	45
China	49	48
Iran	50	50

Sources: The CEF Index ratings were developed using a combination of O'Driscoll, Homes, and Kirkpatrick 2001 and Freedom House 2000.

tant communications tool for them. In traveling and teaching in New Zealand in 1999, I found that most New Zealanders were realistic about the logistical problems they face in the world economy. Yet they were quite willing to reach across borders for knowledge, and they have invested substantially in the Internet to achieve that goal. Perhaps New Zealand's openness is instrumental to achieving economic ends, but it also is an end in itself for many Kiwis. For these nations, it seems, a spirit of openness is inextricably twined with economic globalization.

Singapore offers a counter example: a nation whose citizens live by their economic wits, yet whose government exercises extreme social control over them. In Singapore, private-property rights are well protected by an independent judiciary. The government has practiced limited and transparent regulation of economic activity and has no import quota or nontariff barriers to foreign trade. Singapore also has promoted electronic commerce aggressively, and it ranks fourth in the world with respect to the percentage of its population using the Internet. Yet Singapore's ruling People's Action Party (PAP) also dominates in all political and economic spheres. Government-linked corporations generate approximately 60 percent of the GDP. In effect, the ruling party maintains that its values are the national values and that PAP's dominance is vital for Singapore's survival.

Many people admire the impressive economic achievements of this fascist state. That Singapore "works" is in large part a result of the political and cultural integration of the state: its monitoring and molding of social behaviors suggests a clanlike society, which Singapore perhaps will remain. Nevertheless, the Singapore government confronts the dilemma of allowing the acquisition of economic and scientific knowledge from the Internet without permitting access to the diverse opinions on social and political matters that might damage PAP's dominance. The danger for PAP is that the Internet as a tool for economic entrepreneurship might become an instrument of social and political entrepreneurship. So far, reliance on self-censorship and severe punishments of a few transgressors seem to be effective.

The People's Republic of China presents a different situation with respect to flexibility, globalization, and Internet use. It scores poorly on all indexes: forty-ninth on CEF, forty-eighth on globalization, and forty-first of the fifty nations surveyed on the number of Internet users. We safely can predict a rapid rise in both globalization and Internet use as this enormous nation aggressively expands its economic agenda; recent entry into the World Trade Organization will bring China many new opportunities. China's approach also can be characterized as fascistic: the Communist Party brooks no challenges to party supremacy and firmly embeds itself in most economic discussions. (Business discussions in China between foreigners and Chinese firms invariably include a third party—a member of the Communist Party.) Clearly, however, discussions that occur in cyberspace are more difficult for the Chinese authorities to monitor and regulate.

China has called for an international pact to create "safe management of information," which would permit national discretion to censor information flowing over

the Internet (Sussman 2001). Still, Internet use is increasing rapidly in China, and much of this use is not controlled. The government is unwilling to pull the Internet plug because it recognizes the Net's enormous potential for advancing scientific and economic objectives, but it fears the Net's potential for social and political mischief. The government continues to restrict Internet content, with trained police presumably monitoring activity. The Chinese government also operates the country's only three ISPs and requires that Internet-using companies hold licenses and carefully record who their users are and what they are doing.

In spite of these actions, sophisticated users in China have circumvented the informational roadblocks with relative ease, in part by linking to mirror Internet sites in free nations. Further, Chinese hackers can access messages from non-Chinese sites. China's authorities have few effective options: porous regulation or the heavy-handed approach of pulling the plug on such visible sites as cybercafés and severely punishing the few individuals who are apprehended violating the rules. One can only wonder at the government's likely success in squelching dissent. Unlike Singapore's people, China's citizens display far more diversity of opinions about what a good life might entail. In 2000, the founder of China's first human rights Web site, Huang Qi, was arrested for subverting the state's power. He is unlikely to be the last such dissident arrested.

Internet Technology “Shocks” and Culture

Resistance to cultural challengers is the norm in most societies. New and powerful ways of gathering and interpreting information lead people to question current cultural representations of important relationships. People begin to experiment with their “cultural norms,” in effect trying to rewrite social operating manuals. How such social entrepreneurship plays out differs significantly depending on the openness of the underlying culture.

Those who share a culture cannot simply plug in new values and norms and unlearn the lessons that have been inculcated over lifetimes. These lessons are buried in memories and in the institutions of the society. Thus, a general denial of or attack on cultural intruders is a predictable response when a technology is used in a socially disruptive way.

In culturally flexible societies, however, established values and norms *are* by definition open to such challenges. Individuals will put innovations to use (often via sub-cultures) within these open societies in ways that are potentially inconsistent with the foundational norms. Fukuyama describes such tensions well:

there is nothing in the formal institutions themselves that guarantees that the underlying society will continue to enjoy the right sort of cultural values and norms under the pressures of technological, economic, and social change. Just the opposite is the case: the individualism, pluralism, and

tolerance built into the formal institutions tend to encourage cultural diversity and therefore have the potential to undermine moral values inherited from the past. (1999, 12)

In essence, in an open nation (that is, with high CEF), everyone has “permission” to seek ways to dismantle, revise, or rebuild societal norms—to the annoyance of virtually everyone else. Clearly, the Internet expands the range for social and political entrepreneurship. We continually are forced to play a game of “catch-up” in building norms and values that will make sense of our changing circumstances, if CEF is to be retained.

Why do open societies accept the risks of being morally undermined? The answer, I believe, lies largely in perceived differences in the cost of adaptation. In open societies, people generally believe that changes can be managed, that such changes will *not* be brutally disruptive and costly. That assessment breeds an optimistic activism in which problems are faced and solved, rather than avoided. On the other hand, in repressive nations, leaders fear that all manner of provocation might arise from connecting to a pluralistic world. If their citizens are able to acquire culture that differs from that defined as acceptable within the nation-state, then some of the “glue” that holds the nation together may dissolve.

Governments face the dilemma of controlling potentially offensive Internet social and political uses, while at the same time promoting the sharing of economically valuable information. Similarly, many large modern corporations balance the value of the information their employees obtain from the Net against the risks that the employees will abuse their access to the Net. Corporate policies about employee use of the Internet vary from the draconian to the libertarian, leading workers to self-select: those who strongly value greater personal freedom are likely to migrate to organizations that uphold the same value. As a result, competition among firms for productive employees (who also may value personal freedom highly) can affect the design and policies of private organizations. By contrast, national governments to a large extent hold captive their citizens, whose exit (emigration) is costly. This citizen immobility permits national governments to be less responsive to citizen demands for information freedoms.

Conclusion

As the Internet becomes a more powerful communications tool, it foreshadows major changes in the patterns of our lives. We all struggle with destabilizing innovations—just as home-craft Luddites fought industrialization 190 years ago. In pluralistic democracies, interest groups will press the government to regulate undesired aspects of global relationship building (for example, trafficking in pornography or inciting violent acts), and to some extent governments will impose controls. But open, adaptive, pluralistic societies, I believe, will muddle through without extensive Internet restrictions, even

though they are sure to face unsettling technological innovations and disruptive scientific advances; rapid growth in our scientific knowledge of the human brain and of biogenetics may cause just such existential shocks in the next few decades.

Societies that place a high value on social and economic flexibility (freedom and tolerance) can weather such disruptions. By keeping cultural options open, even if no immediate reason exists for doing so, such societies retain valuable capabilities to evolve. That argument is lost, however, on political leaders who purport to represent their national cultures. The other side of flexibility, of course, is the potential transmogrification of cultural identity, a risk to all who live openly, as Fukuyama insightfully points out. Clearly, for those who do not live openly, this risk is reduced, but attempts to seal off cultures have consequences that can devastate human liberty. Fortunately, in closed nations, political leaders' desire for expanded global economic exchange forces them to accept some intermingling of foreign ideas arriving via the Internet. That acceptance may be the informational equivalent of the camel's nose under the tent flap.

Areas enmeshed in cultural traditionalism yoked to political repression have the most to gain from the Internet's development. In those places, individuals can use the Internet to join a globalized "middle class"—a worldwide psychological support system. We should work to expand the open global Internet not merely because it expands economic activity but also because it expands individual liberty; yet we should recognize that Internet access also will play havoc with cultures in many parts of the world.

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