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Internetworking for Social Change: Keeping the Spotlight on Corporate Responsibility

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Summary/Résumé/Resumen

Summary

The strategic manipulation of information and communication technologies (ICTs) to disseminate information across the networked planet has increasingly become a fact of life for many larger NGOs. Indeed, it seems that since the nascent on-line sharing of materials and analysis during 1992's Rio Earth Summit, the importance of electronic communication has evolved and increased considerably. It appears that such "internetworking" has facilitated a globalization of civil society no less noteworthy than that which characterizes the corporate world.

But is this, perhaps, overstating the role of Internet communications in promoting the goals of sustainable development groups? Is the "virtual" world of globally linked computer terminals more an over-hyped fiction meant to make people feel better connected than it is an effective antidote to the isolation and powerlessness many articulate at the end of the century? This paper attempts to answer these questions, first by looking at the history of NGO globalization over the Internet and then by exploring the experiences of key international social and environmental organizations with Internet communications.

The Free Burma Coalition, the Zapatistas of Mexico, the Ogoni campaign and McSpotlight provide important early examples of the effective harnessing of ICTs to publicize environmental and social justice campaigns. In each of these situations, powerful corporate interests were highlighted as at least partially responsible for creating the conditions in which destructive development has occurred.

The proposed Multilateral Agreement on Investment (MIA) is a more recent example of the successful use of e-mail and Web communications to force the spotlight on international trading practices. In this case, groups opposed to the MAI were able to build upon their post-Rio internetworking experiences to orchestrate a global campaign to publicize multilateral trade negotiations. Arguably, the MAI talks would have otherwise continued within the relative obscurity of the OECD free from the glare of the media, which eventually picked up the story via the Internet.

Many of the NGOs critical of the MAI also participated in the questionnaire that informs this report; respondents articulated several key advantages and limitations of Internet communications. Among the main benefits cited are the interactivity and dissemination possibilities enabled through the combination of push and pull technologies; this advantage allows organizations to inform interested parties and also encourages them to become immediately active in Internet campaigns. An important challenge presented by the technology remains the question of access, with organizations noting that although their own on-line constituencies are growing exponentially, a significant percentage of the public remains off-line, particularly in the South.

The ability of global civil society organizations to transcend geographical divides via the Internet has not gone unnoticed. While corporations and business associations have been caught off guard in the battle for market share of the public mind on the Internet, their communications and public affairs departments are starting to use their own Web sites to promote not only their goods and products, but also their public personas as good citizens interested in promoting sustainable development.

While NGOs are ahead of the game for now, corporations are becoming savvier users of the Internet to convey their own perspectives of corporate social responsibility. As both NGO and corporate questionnaire respondents noted, one of the most attractive elements of the Internet is the ability to bypass the editorial control of the mainstream media. The direct communication offered through e-mail and Web sites means that global organizations now enjoy an unprecedented opportunity to control their relationship with the public.

As this paper suggests, several prominent international NGOs currently use Internet communications to successfully convey their messages and to keep public attention on corporate activity deemed socially or environmentally deleterious. There are, however, factors looming on the near horizon which threaten the relative democracy of the Internet as a means to also project the activist's story onto the public imagination. The paper closes by recommending a cautious embrace of online communications—recognizing both their inherent limitations and their demonstrated competencies.

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This paper was commissioned under the UNRISD research programme on **Business Responsibility for Sustainable Development**, co-ordinated by Peter Utting. The paper also complements UNRISD work on **Information Technologies** and **Social Development**, co-ordinated by Cynthia Hewitt de Alcántara.

Résumé

Les techniques de l'information et de la communication sont entrées dans les moeurs de beaucoup de grandes ONG qui s'en servent de manière stratégique pour diffuser des informations via le réseau planétaire. Il semble effectivement que, depuis le Sommet de la Terre de Rio, où l'on a assisté aux débuts des échanges en ligne de documents et d'analyses, l'importance des communications électroniques ait considérablement augmenté. Les échanges que permet l'Internet paraissent avoir favorisé une mondialisation de la société civile tout aussi remarquable que celle des entreprises.

Mais peut-être est-ce surestimer le rôle que jouent les communications via l'Internet en faisant connaître les objectifs des groupes militant pour un développement durable? Plutôt que l'antidote efficace d'un malaise collectif éprouvé en cette fin de millénaire, du sentiment d'être légèrement dépassé par les événements autour de soi, le monde virtuel des terminaux d'ordinateurs reliés à l'échelle planétaire n'est-il pas une fiction serinée à grand renfort de publicité, destinée à donner aux gens l'impression d'être plus proches des autres, moins

isolés? Ce rapport tente de répondre à ces questions, d'abord en étudiant l'histoire de la mondialisation des ONG par l'Internet, puis en s'intéressant aux communications par l'Internet et à l'expérience qu'en ont faite de grandes organisations environnementales et sociales.

La Coalition pour une Birmanie libre, les Zapatistes du Mexique, la campagne Ogoni et McSpotlight sont des exemples marquants qui montrent que, très tôt, on a su exploiter les techniques de l'information et de la communication pour faire connaître les campagnes menées pour l'environnement et la justice sociale. Dans chacune de ces situations, de puissants intérêts commerciaux sont apparus en pleine lumière et, s'ils n'avaient pas directement créé les conditions dans lesquelles le développement devenait destructeur, ils en étaient au moins partiellement responsables.

Le projet d'Accord multilatéral sur les investissements (AMI) est un exemple plus récent encore dans lequel l'utilisation du courrier électronique et des communications par le Web a réussi à braquer les projecteurs sur le commerce international. En l'espèce, les groupes hostiles à l'AMI ont su mettre à profit l'expérience de travail en réseau qu'ils avaient acquise après Rio pour orchestrer une campagne mondiale destinée à alerter l'opinion aux négociations commerciales multilatérales. On peut soutenir que, sinon, les pourparlers se seraient poursuivis dans la relative obscurité de l'OCDE, loin du regard indiscret des médias qui ont fini par reprendre ce qui était diffusé sur l'Internet.

Nombre d'ONG critiques de l'AMI ont aussi répondu au questionnaire qui a fourni matière à ce rapport; les réponses ont exposé plusieurs avantages décisifs et limites des communications via l'Internet. L'interactivité que permet l'association des techniques "push and pull" et les possibilités de dissemination d'information figurent parmi les principaux avantages; ce sont ces avantage qui permettent aux organisations non seulement d'informer les parties intéressées mais aussi de les encourager à prendre immédiatement une part active aux campagnes sur l'Internet. La question de l'accès reste un obstacle important que la technologie ne permet pas de franchir: les organisations constatent en effet que, malgré une croissance exponentielle de leur audience en ligne, une grande partie du public reste inaccessible, en particulier dans le Sud.

Grâce à l'Internet, les organisations de la société civile mondiale ne sont plus arrêtées par des barrières géographiques et cela n'est pas passé inaperçu. Si les sociétés et associations commerciales ont été prises par surprise dans la bataille qui se joue sur l'Internet pour gagner les esprits, leurs départements de communication et des affaires publiques commencent à se servir de leurs propres sites Web pour promouvoir non seulement leurs biens et leurs produits, mais aussi leur image publique de bons citoyens désireux de participer à un développement durable.

Si, dans ce jeu, les ONG mènent pour l'instant, les sociétés commerciales deviennent des utilisateurs plus futés et se servent de l'Internet pour faire connaître leur façon de concevoir leurs responsabilités sociales. Comme l'ont fait observer des ONG et des entreprises dans leurs réponses au questionnaire, l'un des éléments les plus séduisants de l'Internet est sa capacité de court-circuiter le contrôle éditorial des médias établis. Grâce à la communication directe qu'offrent le courrier électronique et les sites Web, les organisations mondiales ont maintenant des possibilités sans précédent de contrôler leurs relations avec le public.

Ainsi que le rapport le laisse entendre, plusieurs éminentes ONG internationales se servent actuellement des communications via l'Internet pour faire passer leurs messages et maintenir dans le collimateur les activités d'entreprises qu'elles jugent socialement et écologiquement néfastes. Il y a cependant des facteurs qui menacent à court terme le caractère relativement démocratique de l'Internet comme moyen de projeter aussi la version du militant dans l'imaginaire public. L'auteur conclut en recommandant la prudence face aux communications en ligne, dont il faut reconnaître à la fois les limites intrinsèques et les qualités établies.

Kelly O' Neill allie la recherche à la planification du développement social. Ses pôles d'intérêt en matière de recherche sont notamment l'environnement, les questions des rapports sociaux entre hommes et femmes, l'activité indépendante et la responsabilité sociale des entreprises. Elle a travaillé au projet de l'UNRISD Les entreprises responsables du développement durable en 1997 et 1998. Vers la fin de 1998, Kelly a fondé en association avec d'autres femmes le chapitre de Toronto de la "Wired Woman Society"—organisation qui connaît une expansion rapide, a été récompensé par des prix et s'efforce d'améliorer l'accès des femmes aux nouveaux médias et aux techniques de l'information et d'accroître leur influence dans ce domaine.

Ce rapport a été commandé dans le cadre du programme de recherche de l'UNRISD Les entreprises responsables du développement durable, qui s'intéresse aux questions de la responsabilité sociale et environnementale des entreprises dans les pays en développement et dont le coordinateur est Peter Utting. Le rapport complète aussi les travaux de l'Institut sur Les techniques de l'information et le développement social, coordonnés par Cynthia Hewitt de Alcántara.

Resumen

La manipulación estratégica de la tecnología de la información y la comunicación (TIC) para divulgar la información a través de todas las redes del planeta, es algo que ahora muchas de las grandes ONG dan por sentado. Efectivamente, pareciera que desde la incipiente distribución en línea de materiales y análisis durante la Cumbre de la Tierra, en Río, la importancia de la comunicación electrónica ha evolucionado e incrementado considerablemente. Se supone que tal 'trabajo de red' ha facilitado una mundialización de la sociedad civil no menos notable de interés que aquella que caracteriza al mundo empresarial.

Pero, ¿pudiese esto exagerar la función de Internet en la promoción de los objetivos planteados por los grupos a favor del desarrollo sostenible? El mundo 'virtual' de terminales de computadoras con vínculos universales ¿es más una ficción exagerada, para convencer a las personas de que están mejor conectadas, que un antídoto eficaz para el aislamiento y la impotencia que tantos articulan al final del siglo? En este documento se intenta responder a tales interrogantes, primero, con un examen de la historia de la mundialización de las ONG mediante Internet, y luego con la exploración de las experiencias que las importantes organizaciones internacionales, sociales y del medio ambiente han acumulado con el uso de Internet.

La Coalición de Birmania Libre, los Zapatistas en México, la campaña de Ogoni y McSpotlight nos entregan los primeros ejemplos del aprovechamiento eficaz de la TIC para hacer públicas las campañas de protección al medio ambiente y de justicia social. En cada una de estas situaciones, se pusieron de relieve los poderosos intereses empresariales como al menos, responsables en parte de crear las condiciones en que ocurrieron los hechos destructivos.

El propuesto Acuerdo Multilateral sobre Inversiones (AMI) es un ejemplo más reciente del uso exitoso de la comunicación por medio del correo electrónico y de la Web para situar al comercio internacional en el primer plano de la actualidad. En este caso, los grupos opositores al Acuerdo pudieron aprovechar sus experiencias de trabajo de red tras la reunión de Río, a fin de orquestar una campaña mundial para divulgar las negociaciones comerciales multilaterales. Podría decirse que, las conversaciones sobre el Acuerdo, hubiesen de otro modo continuado a la sombra de la OCDE—escapando de la vista de los medios de comunicación que finalmente recogieron la historia por vía de Internet.

Muchas de las ONG críticas del Acuerdo Multilateral sobre Inversiones participaron también en el cuestionario que proporciona información para este informe; aquellos que respondieron mencionaron varias ventajas y limitaciones importantes de la comunicación por medio de Internet. Entre los beneficios principales se da la interactividad y posibilidades de diseminación permitidas a través de la combinación de las tecnologías de pulsar y extraer; es esta ventaja la que permite que las organizaciones no sólo puedan informar a las partes interesadas sino que también las motiva para tomar parte inmediata en una campaña a través de Internet. Sin embargo, un importante reto que aún presenta la tecnología es la cuestión de acceso a las organizaciones que observan que, si bien sus partidarios en línea crecen de manera exponencial, un porcentaje importante del público continúa fuera de línea, especialmente en el Sur.

La habilidad, de las organizaciones mundiales de sociedad civil, para trascender las divisiones geográficas a través de Internet, no ha pasado desapercibida. Mientras que las empresas y las asociaciones comerciales han sido sorprendidas en la batalla por repartirse el mercado de la atención pública en Internet, sus departamentos de comunicaciones y asuntos públicos comienzan a utilizar sus propios sitios en la web para promover no solamente sus mercancías y productos, sino también su personalidad pública como buenos ciudadanos interesados en fomentar el desarrollo sostenible.

Si bien las ONG llevan por ahora la delantera en el juego, las empresas se tornan usuarias más sabias de Internet para transmitir sus propias perspectivas de responsabilidad empresarial sobre el entorno social. Como lo han observado las ONG y las empresas que han respondido al cuestionario, uno de los elementos más atractivos de Internet es la habilidad de pasar por alto el control editorial de los medios de comunicación principales. La comunicación directa que ofrece el correo electrónico y los sitios de la Web, por ejemplo, significa que las organizaciones mundiales disfrutan ahora de una oportunidad sin precedentes para controlar su relación con el público.

Como lo sugiere este informe, varias ONG internacionales prominentes se sirven de Internet para comunicar sus mensajes con mucho éxito, y para mantener la atención pública en las actividades empresariales que se consideren destructivas del entorno social y el medio ambiente. Empero, hay factores que se avecinan en el horizonte, amenazantes a la relativa democracia de Internet como medio para proyectar también en la imaginación pública la historia de los activistas. El documento termina con la recomendación de tomar con cautela la comunicación en línea-reconociendo tanto sus limitaciones inherentes como su demostrada competencia.

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Abbreviations and Acronyms

APC	Association for Progressive Communications
APEC	Asia Pacific Economic Cooperation Forum
BCNI	Business Council on National Issues (Canada)
BCSD	Business Council for Sustainable Development
CER	corporate environmental report
CSD	Commission for Sustainable Development
DTCI	Division on Transnational Corporations and Investment
ECOSOC	United Nations Economic and Social Council
EMS	environmental management system
ENDA TM	Environnement et développement dans le Tiers monde
EZLN	Zapatista National Liberation Army
FBC	Free Burma Coalition
FoE	Friends of the Earth
GATT	General Agreement on Tariffs and Trade
GCC	Global Climate Coalition
GUE	gross national product
IBASE	Brazilian Institute of Social and Economic Analysis
	•
ICC	International Chamber of Commerce
ICT	information and communication technology
IDRC	International Development Research Centre
IGC	Institute for Global Communications
IISD	International Institute for Sustainable Development
INGOF	International Non-Governmental Forum
ISP	Internet service provider
IUCN	World Conservation Union
JI	joint implementation
LAN	local area network
MAI	Multilateral Agreement on Investment
MFN	most favoured nation
NAFTA	North American Free Trade Agreement
NGO	non-governmental organization
OECD	Organisation for Economic Cooperation and Development
PAN	Pesticide Action Network
PR	public relations
RAFI	Rural Advancement Foundation International
RAN	Rainforest Action Network
SAMWU	South African Municipal Workers' Union
SDNP	Sustainable Development Networking Programme
SYNFEV	Gender and Development Synergy
TNC	transnational corporation
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNCTC	United Nations Centre for Transnational Corporations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNRISD	United Nations Research Institute for Social Development
URL	Uniform Resource Locator
US	United States
USDA	United States Department of Agriculture

WAN	wide area network
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development
WEDO	Women's Environment and Development Organization
WTO	World Trade Organization
WWF	World Wide Fund for Nature

Much of the success of the environmental movement comes from the fact that, more than any other social force, it has been able to best adapt to the conditions of communication and mobilization in the new technological paradigm. . . . Environmentalists have also been at the cutting edge of new communication technologies as organising and mobilising tools, particularly in the use of the Internet. . . . It seems that a computer-literate elite is emerging as the global, co-ordinating core of grassroots environmental action groups around the world, a phenomenon not entirely dissimilar to the role played by artisan printers and journalists at the beginning of the labour movement (Castells, 1997:128-129).

1. INTRODUCTION: INFORMATION AND COMMUNICATION TECHNOLOGY AND GLOBALIZATION

On the threshold of the twenty-first century, we are looking into a future that strikes many as both exciting and ominous, filled with great potential yet permeated with uncertainty. Whether one embraces or regards cautiously the changing socio-economic parameters of our times, it has become increasingly difficult to predict the future. From the dissolution of the USSR to the recent turmoil around the economies of the Asian Tigers, it is clear that the attempt to understand—let alone predict—the global landscape of the upcoming decades is fraught with many challenges.

The increasing interdependency of the world's economic system itself is not a new phenomenon; today's version, however, is unprecedented in several ways. As Kristof (1998) notes, in the thirteenth century the English borrowed from Florentine merchants to pay for the wars of Edward I—an early example of the international movement of capital in search of high returns.¹ Globalization today, however, differs from earlier incarnations as the latter part of the century has heralded myriad new technologies that have added both speed and scope to the process. Anthony Giddens argues that "the current phase of globalization is not just an extension of earlier phases of Western expansion. . . . I would take it to begin only about thirty years ago, when the first global satellite system was established, so that you could have instantaneous electronic communication across the face of the earth".² Indeed, information and communication technologies are increasingly understood as seminal to the globalization process.

At the 1998 World Economic Forum in Davos, Switzerland, participants noted the contribution of Internet communication to the process of economic globalization.³ Price Waterhouse analyst William Dauphinais commented, while observing the optimism of global business executives in attendance, that "Much of this exuberance can be tied to the fact that with the fall of the Berlin Wall and the advent of the Internet, the world market is now complete". Indeed, it is difficult to understate the impact new information technology has had on facilitating corporate expansion across the globe. International financial transactions worth millions of dollars take place in the span of seconds, creating what Barnet and Cavanagh refer to as the global "casino" (1996:360-373). In bold contrast to the success of global commerce in the latter half of the century, the United Nations Environment Programme (UNEP) observes several widespread social trends that have occurred simultaneously and have negatively impacted upon the environment. For example,

UNEP's research documents an increase in disparity both between and within countries, ongoing poverty and hunger, and increased exposure to health risks related to chemical pollution and resource degradation (1997).

Many economists suggest that it is the scale of capital flows and their ability to topple weak nations that is the crucial difference between the current incarnation of globalization and past instances (Kristof, 1998). UNCTAD's **Trade and Development Report 1998** points to the ability of international capital mobilization to derail hitherto strong developing economies.⁴ Certainly, the power of new information and communication technologies⁵ (ICTs) to facilitate global economic and cultural change is unprecedented. Arguably, it is the alacrity of change enabled by these technologies that both encourages proponents of globalization and disconcerts those who are sceptical of it. There can be little doubt that enhanced information technologies represent a boon for economic development worldwide; however, the current and relatively unfettered opportunities offered by Internet communication have not gone unnoticed by civil society.

As sociologist Manuel Castells suggests, many activist groups are learning how to harness information technology in the service of environmental protection. In September 1997, the United Nations Research Institute for Social Development⁶ (UNRISD), in collaboration with the Universidad Nacional in Costa Rica, sponsored an international workshop on the role of business in environmental protection in developing countries.⁷ Several papers presented at the workshop referred to the increasing role information technology plays in promoting more responsible corporate behaviour. As Murphy and Bendell (1999:41) note,

Global access to computers, fax machines, modems, satellite communications and solar-powered battery packs has provided many civil society groups with greater knowledge, voice and power. . . . Although the vast majority of the world's poor and powerless do not have direct access to information technology, growing numbers of NGOs and activist groups do. This trend is providing renewed impetus for the cause of social and environmental justice around the world.

This paper begins by briefly exploring the concept of corporate environmentalism through the lenses of its advocates and its detractors. It will argue that the Internet facilitates a corresponding globalization of civil society that helps keep social and environmental issues on the trade and development agenda. The intention is not to suggest that the Internet is a panacea for the deleterious effects of economic globalization; arguably, the technology has amplified the globalization process, making it easier for transnational corporations to expand into markets the world over. The research suggests, rather, that electronic communication can help fill the void left by retreating states that increasingly lack the political will and resources to keep socially and environmentally sustainable development on the agenda.

While this paper focuses on how civil society⁸ incorporates ICTs into its activist strategies, it also examines the ways that global corporations and business associations make use of these technologies, particularly Web sites and e-mail, to promote their role in environmental protection, and to a lesser degree, social development. Furthermore, the use of the Internet by stakeholders weary of corporate globalization does not guarantee that NGOs will assume a place of influence on the debating platform. Rather, what the Internet does offer is the possibility of bringing corporations to greater account through the publicizing of

behaviour that threatens the social and environmental fabric of society. In an era of governmental retreat from environmental protection and shrinking international development assistance, grassroots organizations have in many instances assumed the role of corporate watchdog. Internet technologies are becoming an effective antidote to the malaise that many social and environmental NGOs claim marks the years since the 1992 Rio Earth Summit.

2. SETTING THE CONTEXT FOR THE TRADE AND ENVIRONMENT DEBATE: FROM STOCKHOLM TO RIO DE JANEIRO AND BEYOND

The foundations of today's environment and development debate are traceable to the 1972 Stockholm Conference on the Human Environment, the first global environmental gathering, which drew together 113 nations. The environment and development question, however, really came to the fore in the 1980s. In late 1983, Gro Harlem Brundtland⁹ was asked by the Secretary-General of the United Nations to chair an independent commission to address global environmental concerns. With a mandate to re-examine critical environment and development issues, to strengthen multilateral co-operation and to promote increased understanding of the issues among individuals, governments, businesses and other organizations, the World Commission on Environment and Development (WCED, popularly referred to as the Brundtland Commission) conducted public hearings around the globe. Its 1987 report, **Our Common Future**, attracted worldwide attention with its warnings about the dire consequences of global poverty, environmental degradation, disease and pollution (Keating, 1993).

The WCED report also entrenched the term "sustainable development" in the environment and development lexicon. Briefly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", the expression reflects (i) the notion that the needs of the world's impoverished people should take priority, and (ii) the recognition that technology and social organizations place limitations on the ability of the environment to meet current and future needs (WCED, 1987:8). While the concept of sustainable development remains controversial, with some commentators dismissing it altogether (see Goldsmith, 1998), it remains the pivot around which the environment and development debate revolves.

Voices of concern for the social and environmental effects of development built to a crescendo in the years following the publication of **Our Common Future**. In 1992 the United Nations Conference on Environment and Development (UNCED, also referred to as the Rio Earth Summit) brought together the heads and senior officials of 179 governments as well as hundreds of United Nations officials, businesses, non-governmental groups, scientists and municipal governments in Rio de Janeiro, Brazil. With more than 24 million pages of preparatory documents behind it, UNCED was an attempt to bring North and South together to tackle problems of a global dimension (Hadjor, 1993). At the same time, the 92 Global Forum, or the People's Summit, organized meetings, lectures and exhibits for the public; in total, these events attracted an estimated 18,000 participants and 400,000 visitors from around the planet (Hadjor, 1993). The excitement of the months leading up to the conference suggested that the global community had arrived at a consensus about the need to make significant directional changes in its course of development.

As the Rio Earth Summit revealed, however, agreement as to the underlying causes of environmental degradation was much more difficult to reach; indeed, according to Hadjor, former East-West tensions appeared to have been replaced by the conflicting views of the industrialized North and the economically underdeveloped South, as well as competing affluent nations. Discussions around global warming and deforestation were particularly contentious, pitting the wealthy minority and the impoverished majority against each other on several key issues including overconsumption, over-population and the need to earn export income.

Issues of concern in the trade and environment debate include not only the actions of international business but also the behaviour of the wealthier nations. During UNCED, many developing countries took umbrage with the contention that they should be expected to implement environmental standards not met by the world's most egregious polluters. As Kuttner notes, "the wealthy countries are the main culprits because their standard of living produces most of the world's pollutants. It is hard to take seriously the leadership of countries that will not tax themselves to reduce energy pollution. It is even harder to accept that poor countries should reduce living standards already on the edge of destitution when affluent countries will not take even moderate steps" (1996:24-25).

The disappointments articulated by many observers and Rio participants render it tempting to agree with the characterization of the post-Rio period as one of malaise regarding sustainable development, for while there has been much rhetoric around the concept, concrete and effective examples of implementation have largely been elusive. Even Maurice Strong, former Secretary-General of UNCED, conceded in 1993 that the political will to implement sustainable development was waning (Keating, 1993). While the years leading up to the Rio meeting witnessed growing public awareness of environmental issues and the creation of environmental ministries, the years since Rio have seen the erosion of state support for strong environmental policy making and implementation.

The late 1990s have witnessed a downgrading of environmental concerns in government policy making in many countries; once influential environment ministries have had their powers reduced. With gutted budgets, environmental protection agencies must battle fiercely for a shrinking allotment of public funds. For example, although Canada assumed a leadership position at the Rio conference and signed the United Nations Framework Convention on Climate Change, little concrete action has ensued. Indeed, the prime minister has publicly admitted that the nation's emissions levels have not been reduced; moreover, they may actually increase (McIlroy, 1997). Concomitant with the decline of interest in the socio-environmental implications of development by national governments has been an increasing call for greater uniformity in global trading practice.

The concept of globalization is also ascendant in the post-Rio era. In more specific terms, globalization is most often preceded by the adjectives economic or corporate.¹⁰ In his seminal book, **When Corporations Rule the World**, former Harvard Business School professor David Korten (1995) contends that globalization is an intentional and conscious transformation seeking a new world economic order that does not inhibit business through either nationality or border.

Based on their survey of political scientists, economists, sociologists and geographers, Drache and Gertler (1991) characterize economic globalization by three main aspects: the first element is that larger markets are now required to meet the needs of transnational corporations;¹¹ hence, in order to increase markets, nations must integrate into larger trading areas.

The second aspect of economic globalization is increased capital mobility. As world trade increases faster than domestic production, corporations lobby national governments to remove trade barriers. Today, global currency trade is about US\$1.3 trillion daily (compared to the relatively small amount of US\$10 billion traded daily on the American stock market)¹² and of this total amount, goods and services which need foreign exchange total just 2 per cent, or US\$5 trillion, annually of total trade.¹³

Moreover, the speed and scope of these transfers renders it very difficult to trace currency flows. UNCTAD's Secretary-General Ricardo Ricupero has expressed growing concern over the destabilizing effects of financial liberalization and deregulation on both developing and, increasingly, developed countries (UNCTAD, 1998). There does not appear to exist, however, much political will to abate the flow. For instance, during the 1995 World Summit for Social Development in Copenhagen, several European leaders supported the idea of a Tobin-style tax.¹⁴ Despite the support of French President François Mitterrand, Norway's Gro Harlem Brundtland and Denmark's Poul Nytup Rasmussen, the idea was not taken up by the majority of government representatives (Henderson, 1996).

The third element of economic globalization concerns greater specialization because, as global trading intensifies, nations prefer to concentrate on the most competitive industries and to let go of businesses in costlier sectors. As Drache and Gertler note, the nature of the global economy leads national governments to use state policy in the interest of trade development: "the state has embraced a fundamentalist version of export-led growth, in which exploitation of natural resources is being pursued with newfound vigour, but with questionable returns both to the economy and the environment" (1991:xii). Advantages to global business, however, are much less ambiguous.

The financial gains of globalization continue to accrue to corporations domiciled in affluent countries: although the number of TNCs¹⁵ is increasing in developing countries, most are located in developed nations. In 1970, there were 7,000 TNCs and by 1995 there were 40,000 (Karliner, 1997). According to the **World Investment Report 1997**, the planet's 44,000 parent firms had an estimated US\$ 7 trillion in global sales in 1995; however, only 7,900 companies were headquartered in the nations of the South (UNCTAD, 1997). Approximately 60 per cent of total foreign direct investment goes into affluent nations while just 40 per cent makes it to the heavily indebted countries of the South (**The Economist**, 1997).

The **Trade and Development Report 1998** also documents the vast gulf between the world's richest and poorest nations: average per capita income in the wealthiest countries is 50 times that of the most impoverished. While interests on both sides of the trade liberalization debate acknowledge the inequities of the current global economic system, the causes of these are attributed to a myriad of circumstances ranging from an economic system directed largely by giant corporations to overly restrictive trade barriers. As **The Economist**'s series on globalization suggests, multinational corporations are the "main conduits" through which worldwide economic integration occurs. Given their considerable power, many global companies can be tempted to take advantage of their influence:

Multinationals' size and scale make it possible for them to exert their power in an exploitative way. . . . A multinational can move production if America's worker-safety law is too restrictive, the company can move its factory to Mexico. . . . This flexibility may make it harder for governments to raise revenue, protect the environment and promote worker safety (**The Economist**, 1997:108-109).

In response to economic globalization, environment and human rights groups increasingly draw linkages between the operations of corporations and the undermining of fundamental rights. In 1998 a report that documented the socioeconomic impacts of transnational operations was prepared by Senegalese jurist El Hadji Guisse, one of the independent experts sitting on the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities. He presented the findings to the Commission on Human Rights in Geneva and pointed out that "of the 100 biggest concentrations of wealth in the world, 51 per cent are owned by transnational corporations and 49 per cent by states. Mitsubishi's turnover exceeds Indonesia's gross national product (GNP), while Ford's turnover exceeds South Africa's GNP and Royal Dutch Shell earns more than Norway".¹⁶ Guisse contends that some businesses "are unaware of or disregard the impact their activities could have on economic, social and cultural rights, whether at the collective level or at an individual level. These companies are frequently, if not always, behind massive human rights violations; in the same spirit, the states that benefit from their activities pass legislation on their rights".

During 1997's Commission on Sustainable Development (CSD), ministers and senior officials of United Nation member states met in New York to discuss progress on the implementation of **Agenda 21**, the Earth Summit's action plan for the new world order (UNCED, 1992a). In an on-line article, "Globalization undermines sustainable development", Martin Khor of the Third World Network in Malaysia notes that many "UN and government officials privately agree that efforts to bring about sustainable development—as agreed at the Rio Earth Summit—have been undermined by the rise of neo-liberalism and its pattern of the globalization process" (1997a). Khor argues that the CSD's inter-sessional working group's report on the effects of globalization points to the disparities inherent in the globalization process; he also notes that in the years since UNCED, the global environment has continued to deteriorate, with many environmental ills still woven into the socio-economic fabric of countries around the world (1997b).

Moreover, there appear to have been few significant changes in the conventional development approach, with economic growth remaining the standard against which a nation's progress is measured. The 1998 **Human Development Report**, however, moves beyond conventional economic indicators to measure human progress. UNDP's research highlights patterns of consumption and indicates that more than a billion people lack the means to meet their most basic needs (UNDP, 1998). While several decades of development have passed since the Second World War, the disparities within nations and among nations are greater than ever. In terms of the social implications of environmental degradation, UNDP's research also states that 86 per cent of the world's goods and services are consumed by merely 20 per cent of the world's people, yet the world's poor people—those who also consume the least—suffer the most from the consequent land, air and water pollution. While few observers dispute the veracity of UNDP's report, and other

research, which points to the increasing inequalities of development, arguments for how best to resolve the situation vary tremendously, with most lying between supporting the status quo on one end of the spectrum to the need for radical systemic change on the other end.

While advocates of freer trade contend that liberalization holds the key to national prosperity, critics argue that it is precisely this approach to economic development which impoverishes nations and leads both to an acceleration in environmental degradation and a subsequent decline in social development (UNRISD, 1995; Mander and Goldsmith, 1996; Karliner, 1997; Barnet and Cavanagh, 1996). David Korten suggests that social and economic disintegration stems "in part from a fivefold increase in economic output since 1950 that has pushed human demands on the ecosystem beyond what the planet is capable of sustaining" (1995:11). Observers, such as Hawken (1994), note that in its current state, business and sustainability appear to be antithetical.

With regard to overseas development assistance, growing unwillingness to contribute to poorer nations also marks the post-Rio period. Despite the optimism of the Earth Summit and the commitments of wealthier countries to greater assistance in the South, many Northern governments have actually reduced their aid to the poorest countries, sometimes re-channelling these funds to Eastern European states. For instance, although UNCED led developed countries to reaffirm earlier commitments to donate .7 per cent of GNP, the OECD's¹⁷ aid level has in fact fallen from .34 per cent in 1992 to .27 per cent in 1995. In many OECD member states, the mantra in foreign policy appears to have become the imperative of global competition. Indeed, its repetition by the mainstream media, government and national institutions appears to engender what McQuaig (1997) refers to as the "cult of impotence". As a result, a distinct trade bias has emerged in wealthier countries, with foreign policies often reflective less of a moral imperative to assist economically disadvantaged countries than of a desire to protect and encourage national business interests and their global expansion.

In the United States, Treasury representatives note that between 1993 and 1995, multilateral development banks directed almost US\$ 5 billion to private American companies, including such global entities as Cargill and IBM (Krut, 1997:19). A recent press release from the Sierra Club reinforces the image of a parsimonious United States with a foreign policy that appears to protect nationalist trade interests rather than provide assistance for the sustainable development of poor nations:

Providing further evidence that today's foreign policy is being driven by the interests of multinational corporations rather than American elected officials, the Clinton administration this week warned Maryland state legislators against passing a bill aimed at sanctioning Nigeria for its human rights and environmental abuses because of concerns that the bill would violate provisions of an international trade agreement. . . . The new GATT rules bar trade discrimination even against countries with egregious human rights and environmental records such as Nigeria.¹⁸

The years since Rio have also witnessed the retreat of governments and increased privatization of the public domain. UNEP's **Global Environment Outlook** (1997) notes that worldwide trends show environmental responsibilities increasingly decentralized from national to subnational authorities. The irony is that the momentum that led up to the world's largest environmental meeting appears to

have become buried beneath an overarching concern for economic development through increased global trade.

What became of the socio-environmental concerns so widely and passionately expressed during preparations for the Rio Earth Summit? Some commentators suggest that the answer lies in another trend observed in UNEP's report: the greater influence of transnational corporations regarding environmental stewardship and policy development.

3. CORPORATE ENVIRONMENTALISM MOVES TO CENTRE STAGE

The Paradigm of Eco-Efficiency

In the period immediately preceding UNCED in 1992, many corporations grew concerned about how the push for sustainable development would impact their operations. Lobby organizations, such as the International Chamber of Commerce (ICC), began to organize constituents around sustainability. While some corporations initially viewed the Earth Summit as a threat, others began to see in it a greater role for business in the environment and development debate. Consequently, this debate moved from one characterized by civil society groups lobbying governments, to one marked by the inclusion of corporations and their representatives at major meetings and international forums (including UNCED and the subsequent UN global conferences). As Egil Mykleburst, Chair of the World Business Council for Sustainable Development (WBCSD) notes:

Prior to the Brundtland report in 1987 and the Rio 'Earth Summit' in 1992, the environmental agenda was to a large extent determined by governments and NGOs. The prevailing business attitude at the time was to concentrate on creating wealth and leave it to the politicians, scientists and activist groups to resolve what needed to be done about protecting the environment, and then to adopt measures which were deemed fit. Today, the picture has changed radically and the debate has become tripolar—business, governments and civil society (WBCSD, 1998:3).

The business response to this potentially threatening situation ultimately became what is referred to as corporate environmentalism.

What is meant by the term "corporate environmentalism"? The lesser-known cousin of sustainable development, corporate environmentalism largely remains within the purview of business circles and those activist groups that are often sceptical of it. Certainly, not all industry players accept the notion that corporations have a role to play in environmentalism—although this contention is fast becoming anachronistic. Comprised of a wide variety of sectors and interests, global business has many reasons to see itself as a stakeholder in the environment and development debate. Many of the world's largest corporations are no longer content to remain on the periphery of discussions concerning sustainable development.

The existence of organizations such as the WBCSD¹⁹ attests to the growing importance global business ascribes to sustainable development. A coalition of 123 of the world's largest companies, the Geneva-based WBCSD describes itself as the

"pre-eminent business voice on sustainable development issues" (WBCSD, 1998). Its worldwide network consists of 17 national BCSDs and four partners in Africa, Europe, Latin America and Asia. WBCSD members increasingly subscribe to voluntary codes of conduct. Several of the better known guidelines for environmental management systems (EMS) include those recommended by CERES,²⁰ Responsible Care,²¹ Keidanren,²² Natural Step,²³ ISO14001,²⁴ EMAS,²⁵ US EPA,²⁶ and the ICC.²⁷

The WBCSD (and its precursor, the BCSD or Business Council for Sustainable Development) has published several important reports and papers that reflect the objectives of some of the world's leading transnational corporations. In 1992, Stephan Schmidheiny²⁸ wrote **Changing Course: A Global Business Perspective on Development and the Environment** with the BCSD. Published in 15 languages, this book marked the organization's first important contribution to the industry and environment debate from the perspective of TNCs. As Finger and Kilcoyne (1997) suggest, the book explains why global business has a vested interest in the environment.

Changing Course presented eco-efficiency as a management approach to improve competitiveness and ecological efficiency; the concept was the corporate response to the sustainability challenge embodied in the work of the Brundtland Commission. The eco-efficiency model, as described by the WBCSD, requires companies to reduce the material intensity of goods and services; reduce the energy intensity of goods and services; reduce toxic dispersion; enhance material recyclability; maximize sustainable use of renewable resources; extend product durability; and increase the service intensity of goods and services (1998).²⁹ The concept can be applied across sectors including chemical, transport, energy and agriculture.

In addition to membership in voluntary initiatives and the WBCSD, a growing number of publications profile the corporate environmentalism and sustainable development initiatives of some of the biggest companies in the world. The corporations which offer their experiences in environmental management in the form of case studies and testimonials include some of the world's most widely recognized businesses: Chevron, Dow, DuPont and Procter & Gamble (Smart, 1992 and WBCSD, 1998). Some CEOs, such as Robert Shapiro of chemicals giant Monsanto, have even become public champions of corporate environmentalism. In an interview with the **Harvard Business Review**, he argues that corporations can grow through sustainability; in other words, he posits that revenues may be expanded through the development of environmentally sustainable technologies³⁰ and goods (Magretta, 1997). As the unprecedented number of organizations, conferences and publications³¹ by corporations illustrates, the environmental work of global business has never been so trumpeted.

Critique of Corporate Environmental Management

There are, however, less sanguine perspectives of corporate environmentalism. Joshua Karliner, Executive Director of the Transnational Resource and Action Center, articulates this scepticism:

The Earth Summit marked the coming of age of corporate environmentalism—the melding of ecological and economic globalization into a coherent ideology that has paved the way for the transnationals to reconcile, in theory and rhetoric, their ubiquitous hunger for profits and growth with the stark realities of poverty and environmental destruction (1997:31).

Many observers attribute the Earth Summit's inability to generate little more than specious social and environmental commitments to the unprecedented role assumed by the business lobby. In the preparatory period, during the conference itself, and in the ensuing years, many of the world's major corporations have become increasingly vociferous in the environment and social responsibility debate. Their participation is often facilitated through international organizations that promote corporate interests on the world stage.

The pre-Rio BCSD sponsored seminars on the implications of the WCED. Finger and Kilcoyne argue that the BCSD and the ICC lobbied Northern governments and major environmental groups such as the World Wide Fund For Nature (WWF) and the World Conservation Union (IUCN). As a result of this lobbying, the authors contend:

The ICC and the BSCD made sure that no mention was made of Transnational Corporations in **Agenda 21**—the principal document produced by UNCED—except that they were partners in and active contributors to solving global environmental problems. This meant that there is nothing in **Agenda 21** about the control of TNC activities ... the serious regulation of their activities by a body with the requisite executive powers was never mentioned. Only self-regulation is accepted (1997:139).

While the business lobby worked hard to ensure a strong industry presence at UNCED, the United Nations Centre for Transnational Corporations (UNCTC) developed a regulatory code of practice for transnational corporations. The proposed socio-environmental code, however, was eventually defeated in the Commission on Transnational Corporations. The United Kingdom and the United States argued that the code would unfairly impinge upon the market (ICCE, 1997). Interestingly, the controversial UNCTC was shut down in 1993 and some of its activities were then moved to UNCTAD's Division on Transnational Corporations and Investment (DTCI); the regulatory code of practice was set aside.

Critiques of corporate environmentalism often begin with the term "sustainable development". For instance, shortly after UNCED, the World Council of Churchesrelated Visser 't Hooft organization sponsored a consultation on "Sustainable Growth: A Contradiction in Terms?" Participants expressed concern that the concept of sustainable development was being eviscerated of its transformative potency because it was being stretched to include sustainable economic growth (ICCE, 1997). In sharp contrast to Monsanto's CEO, those who are most cynical of the post-Rio interpretation of the concept suggest that the term is oxymoronic: they ask whether development can ever be sustained (Shiva, 1993; Sachs, 1996; Daly, 1996; Goldsmith, 1998). The question has roots in a particular interpretation of the "efficiency revolution" (Sachs, 1996:248) has more to do with the conservation of the dominant development paradigm than it does with nature:

For the task of global ecology can be understood in two ways: It is either a technocratic effort to keep development afloat against the drift of plunder and pollution, or it is a cultural effort to shake off the hegemony of aging Western values and gradually retire from the development race. These two ways may not always be exclusive in detail, but they differ deeply in perspective. . . . Unfortunately, too many global ecologists—implicitly or explicitly—favor the first choice: global management (Sachs, 1996:245).

In short, on one end of the trade and environment spectrum are those who equate corporate environmentalism with the "greening of global reach" (Shiva, 1993; Karliner, 1997:30-57). In other words, they assert that efforts to manage the environment through operational audits, better technologies and more efficient resource use do not deal with the problems inherent to modern business, such as practices guided primarily by profit and dependent on robust consumption patterns and incessant growth (Welford, 1997).

At the other end of the spectrum are those corporations and organizations that also link the current *modus operandi* of business to global environmental problems. The important distinction is that proponents of the eco-efficiency approach do not regard the system as inherently flawed; rather, they seek to perpetuate it, albeit in an improved state. The revamped system envisioned is one which does not replace the conventional bottom-line as the overarching objective, even if it does make allowances for social and environmental concerns when they are deemed affordable. In the trade and environment debate, all organizations position themselves somewhere on this spectrum. We have noted how the Rio Earth Summit galvanized support for corporate environmentalism among international companies; however, while global business was transforming itself into the "engine of sustainability", NGOs developed a grassroots alternative by starting to expand their networks and sharing information and strategies across geographical divides.

4. THE INTERNET AND ALTERNATIVE GLOBALIZATION

The Earth Summit opened the way for more active NGO participation in the arena of international negotiations. . . . The international NGOs . . . have been building bridges between North and South, East and West, and will continue our struggle towards a democratic, socially equitable and economically sustainable world (Wangari Mathai, Kenyan Earth Summit participant).

The desire of people to be involved in the management of their affairs, the need to be active in areas where government is unable or unwilling to act, and the development of new communication technologies that convey information broadly and help people interact across national borders are encouraging what some have called a global associational revolution. This is fuelled by the realization that so many issues requiring attention are global in scope (Krut, 1997:17).

NGOs Step Up to the Podium

The suggestion that corporations contribute to the solving of global environmental crises without also acknowledging their pivotal role in the creation of the very same problems did not go unnoticed by the hundreds of non-governmental organizations³² in Rio de Janeiro. Indeed, the malaise around environmental issues which seems to afflict many national governments has not spread throughout civil

society in the intervening years; while economic ministers and trade representatives claim the primacy of the market, many groups and organizations have focused their efforts on the socio-environmental implications of international trade.

As states increasingly transfer responsibility for the public good to the private sector and support further trade liberalization at the cost of social development, civil society has stepped in to fill the void. As Brunamonti (1997) notes, while the dictates of international financial agencies sometimes supplant the objectives and national laws of developing countries, it is often local grassroots organizations and international non-governmental groups which step into to fill the gap left by governments retreating from social development. And Wapner (1996) notes that transnational environmental activists, often operating outside formal politics, have helped politicize global civil society. Furthermore, at each of the recent world conferences on the environment, women, and social development, NGOs have ensured that key issues are brought to the discussion table. Much of the informational exchange and networking that preceded and followed these global meetings was facilitated by new ICTs.

The business lobby, however, has not left NGOs alone to affect policy making and public education around trade and development issues. As groups critical of unchecked trade liberalization become increasingly sophisticated in lobbying for change, trade associations and businesses are donning not only the language of sustainability but also the garb of non-governmental organizations. As Frances Korten (1998) asks, is it appropriate for business to also be involved in the debate as NGOs? The Women's Environment and Development Organization (WEDO, 1995), for instance, challenged the increasing presence of TNCs in non-governmental forums. WEDO argued that corporations have considerable funds for lobbying at their disposal whereas non-profit organizations typically do not; hence the latter are more reliant on NGO conferences to make their concerns known. In response to the increasing presence of "corporate NGOs", WEDO developed educational materials describing the ways that representatives of TNCs come to the table as NGOs through organizations such as the ICC.

Internet Communication and the World Wide Web

Why have we chosen the Internet as the main medium to practice our journalistic concepts? The Internet provides the potential to reach a global audience with cost effective publishing, it frees us from the constraints of professional tradition, allows us to build new paradigms, unleashes creativity and affords us an opportunity to experiment with non-elitist models that seek to empower consumers of our information as much as they empower those who seek out the truth and report it (The Black World Today Web site, 1998).³³

A growing global network enabling computers to "talk" with one another over phone lines, the Internet built an audience of 50 million users in just four years—an audience television took 14 years to develop and radio 38. Although estimates range from upwards of 100 million users, the number is difficult to pinpoint given the Internet's exponential growth.³⁴ In **The Computer Industry Almanac**, Juliussen and Petska-Juliussen estimated that by the end of 1997 there would be 147 million people with Internet access, and projected that by the end of the year 2000 there would be approximately 320 million (1997).

The Internet³⁵ is the amorphous descendant of ARPANET, developed by the Advanced Research Projects Agency of the US Department of Defense so that researchers could link computers together in different geographical areas.³⁶ In 1969, the first nodes were set up between the University of California at Los Angeles and Stanford University. Three years later the network had expanded to 23 nodes, and electronic mail was introduced. In 1986, the US government set up the NSFNET, a research program run by the National Science Foundation. The network quickly moved beyond the original five universities, and it led to a great number of the technological developments behind the present Internet (Reynolds, 1998). Today's Internet is the network under which various forms of computerbased communication, including e-mail, mailing lists, bulletin boards, computer conferencing and on-line databases, exist.

Created in 1991 at Geneva-based CERN³⁷, the World Wide Web is the graphicsoriented part of the Internet that enables users to access information on its host computers (UN-NGLS, 1998b:12-13). The information found on the Web consists of documents that have been converted into HyperText, or the code commonly referred to as HyperText Markup Language or HTML. When HyperText documents or World Wide Web pages are organized into sets, they are called Web sites. The home page is the front page of a Web site; typically it is a kind of table of contents with links to other sections and pages within the document. When one does not have the URL³⁸, or Internet address, to obtain on-line information on a particular subject, a keyword may be typed into the window of a search engine or a Web guide that will search the Internet for information that most closely resembles the keywords or terms provided. For instance, typing "sustainable development" into the window of a search engine results in thousands of matches. Clicking on one of these matches links the user to a page on the World Wide Web.

The proliferation of Web sites in a very short period of time points to their perceived usefulness. The information on these digitized pages can be read by using a Web browser, which allows the user to go to the information they seek: the user's computer "asks" the pertinent Internet host computer to send the data back to the browser for perusal (UN-NGLS, 1998b:12-13). In June 1996 there were 252,000 sites on the World Wide Web; now estimates range in the millions.³⁹ While earlier sites were chiefly text oriented, today's versions sometimes include multimedia elements such as video and sound.⁴⁰

The estimate that 80 per cent of Web sites are in English clearly indicates a barrier to usage by those who cannot communicate in English. In addition, at this time only 16 per cent of Internet users live in Asia and Africa. Interestingly, however, while 71 per cent of current Internet users live in North America and 90 per cent of Internet traffic goes through the United States, by the year 2000 non-American users are expected to outnumber Americans.

Given the scope of the Internet and the World Wide Web, marketing expert Bill Snell contends that history's most expansive media channel means that those organizations that learn how and how not to use this technology will be better positioned than those that do not. Snell also notes that Web sites, when compared to other channels, are significantly more cost-effective and offer greater breadth and depth of information (cited in Walker, 1997).

5. CIVIL SOCIETY BEGINS TO NETWORK ELECTRONICALLY AT RIO AND BEYOND

• Bridging the Information Gap

Eliminating the distinction between information-rich and informationpoor countries is also critical to eliminating other inequalities between North and South and to improving the quality of life of all humanity (Nelson Mandela, during the G-7 Conference on the Information Society, Brussels, 1995).

With the productivity gains made possible by all the information and information tools at their disposal, the rich nations and rich people of the world will improve and expand their economic goods and services, thereby getting richer... The poor nations and poor people, by contrast, can't even get started.... The painful conclusion is that, left to its own devices, the information marketplace will increase the gap between rich and poor countries and between rich and poor people (Michael Dertouzos, Head of the Laboratory for Computer Science at the Massachusetts Institute of Technology, 1998).

Without doubt, the bridging of the information gap is an important caveat in the promotion of ICTs for sustainable development in the South and the North; certainly there is little evidence to suggest that a strictly commercialized Internet will address the information gulf. In order to access the Internet, however, the basic prerequisite is electricity—let alone telephone lines. A stark illustration of the contrast between access levels in the affluent North and the less-industrialized South is the fact that the total number of phone lines in the world's 48 least-developed countries is about 1.5 million, or 1 per cent of the total number in the United States. This chasm appears deeper when one considers that the population of America is not even half that of these countries (Anderson, 1997).

As Dixit (1997) suggests, the test of the Internet's promise to encourage true democratization and decentralization and its potential to spread education and knowledge is related directly to the support the "information-poor" receive to log on and participate. It is no small irony that while Bangalore—the so-called Silicon Valley of South Asia—hosts a major software industry, it nevertheless suffers from regular and lengthy blackouts (Anderson, 1997).

One of the most important—and lasting—benefits to come out of UNCED was the fact that more than at any other international gathering, non-governmental groups were able to participate, even from far away—a situation made possible through computer communication. As Pollard notes,

The use of on-line communications . . . has been a progressively growing factor in NGO participation in global conferences and proceedings since Rio and is the primary means for communication and information exchange among NGOs involved in follow up to the global conferences—particularly the follow up to Rio and to the Habitat II conference. More and more, NGOs are discovering the tremendous value in the use of electronic mailing lists and Web sites in preparing for conferences and events.⁴¹

This expanded participation was enabled in part by the work of the Association for Progressive Communications (APC). The APC is a communications NGO expressly set up to address the information gap between North and South. The APC now has consultative status with ECOSOC.

In 1990, the Brazilian Institute of Social and Economic Analysis (IBASE) suggested to Secretary-General Strong an information strategy project for UNCED. IBASE runs the AlterNex network within the APC. According to Carlos Afonso, the director of AlterNex, the goal was to design and operationalize an economical communications system that would enable NGOs to readily exchange messages between official event sites at RioCentro and NGO event sites through a globally interconnected electronic network (Sallin, 1994).

The UNCED Secretariat posted official documents, updates, press releases and reports on meetings on the network; this enabled NGOs to participate in PrepCom negotiations through the provision of relevant data and analyses in a timely manner. Johanna Bernstein, Kimo Goree and Pamela Chasek were active in the electronic dissemination of information before and during the conference through the creation of the **Earth Negotiations Bulletin**.⁴² Goree states that by the time the PrepCom closed, NGOs had disseminated, through electronic means, full-text documents to more than 9,000 organizations and individuals in over 70 countries (cited in Sallin, 1994).

Five years after the Rio Earth Summit, AlterNex serves as Brazil's key Internet centre for more than 120 bulletin board systems that reach local communities throughout the country. It seems that its importance as a tool for affordable and powerful information sharing has not diminished. Afonso (1996) notes that since the bulletin board system exists outside of corporate-controlled Internet routes, it serves a crucial function as a relatively free community-based network.

Afonso has described the non-profit APC network⁴³ as "the largest backbone of networking services specifically oriented to civil society organizations worldwide" (1996); it continues to play a crucial role in bringing Internet communication to Southern civil society groups and in linking social and environmental organizations across the world. A consortium of 25 international member networks comprise the APC; it includes, for instance, SangoNet in South Africa, Nicarao in Nicaragua, Chasque in Uruguay, GreenNet in England, LaNeta in Mexico, the Institute for Global Communications in the United States, and Web Networks in Canada. Today, the APC offers communication links to over 50,000 activists, NGOs, educators, policy makers and community leaders in 140 countries.

With 40 Southern partner systems, the APC encourages South-to-South technical and data exchange; many of the APC's partner networks offer the only e-mail access available to NGOs in their countries. The network is especially useful for the small-scale systems of many Southern NGOs that may face political, economic or infrastructural constraints to full Internet services (Afonso, 1996). The APC's focus on the social change potential of ICTs is evident in its Women's Networking Programme and its Africa Programme, which are designed to increase civil society access to electronic technologies. Although EcoNews Africa does not have a separate Web site, it does maintain a Web presence through the Web Networks arm of the APC system.⁴⁴ Based in Nairobi, EcoNews uses an African perspective to analyse environment and development issues around the world. The NGO also shares information on local and national actions to help rectify global problems.

As Sallin observes in her case study of NGOs and the APC, the dialogue enabled by computer networks continues in the post-Rio period; a myriad of NGOs from North and South continue their involvement in environmental policy across a spectrum of issues including biodiversity, gender, resource management, sustainable agriculture, forest depletion, water scarcity and indigenous rights.

The agreements produced as a result of the Rio Earth Summit refer to not only the need—and obligation—to share sustainable development information but also to the importance of building the infrastructure to support its dissemination. A 1997 Status Report on information, communications and **Agenda 21**, expresses throughout the need for more effective data collection and for improved networking regarding social, environmental, development and demographic information (Together Foundation, 1997). For instance, chapter 40 of **Agenda 21** (UNCED, 1992b) refers to the gap between developing and developed countries in the availability, quality and accessibility of information, stating that:

In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels (UNCED, 1992b:chapter 40.1).

Claiming that gross national product and similar economic indicators are inadequate sources for information on sustainability, chapter 40 calls for countries and international organizations to disseminate more useful information regarding the environment, demographics, and social development. Examples of the information that needs to be shared broadly include the state of urban air, land resources, desertification, biodiversity and fresh water. Chapter 40 also calls for more data that is helpful to youth, women, indigenous people and those with disabilities, as well as material regarding poverty, health rights and population (Keating, 1993).

Given the crucial role played by electronic information dissemination and networking during UNCED and its parallel Global Forum, it is unsurprising that **Agenda 21** also states that developing countries must be supported in the acquisition and use of these technologies. Principles 9, 10 and 19 of the Rio Declaration assert the importance of increasing public awareness and participation through information distribution; the NGO-produced **Earth Charter** likewise stresses the right of access (Together Foundation, 1997).

Although the electronic organizing and information dispersal that occurred during the Rio meetings was rudimentary by current standards, it laid the foundations for the sustainable development networking that has occurred since 1992. For instance, following the Rio Earth Summit, the United Nations Development Programme (UNDP) initiated the Sustainable Development Networking Programme (SDNP). The goal of the programme is to address the issues delineated in **Agenda 21** (and chapter 40 in particular). SDNP helps create the conditions necessary for connectivity to the Internet and national networks. It is also designed to assist with content and training in 40 developing countries and 36 nation states.⁴⁵

At the 1995 G-7 Conference on the Information Society in Brussels, Nelson Mandela echoed the concern about connectivity, arguing that "the obligation on

governments to bring services to the rural areas of their countries should, with the globalization of telecommunications, apply to the world at large. Developed nations should understand the necessity and the democratic right of the poorer countries to gain access to the information super-highway". Mandela also noted that the elimination of the gap between affluent and poor countries is a prerequisite for the dissolution of other inequalities between North and South and the overall improvement of human life (cited in D'Orville, 1996). In his report for the UNDP, **Communications and Knowledge-Based Technologies for Sustainable Human Development**, D'Orville predicts that in the near future the capacity to communicate will be regarded as a key human right (1996).

During the United Nations World Social Summit for Development, held in 1995 in Copenhagen, the APC again played a vital role by making its Web site available from 70 computer terminals to UN and NGO representatives. Miles Goldstick, the Web site's manager, notes that Southern groups who wished to post information overwhelmed the facilities. In 1995, delegates from the 186 countries that endorsed the Copenhagen Declaration on Social Development recognized the growing usefulness of ICTs to address the information gap between technology haves and have-nots. The delegates reinforced relevant statements made in **Agenda 21** by agreeing to develop a plan to use ICTs in the eradication of poverty.

Women's Electronic Communications in Beijing

The Earth Summit resulted in an unprecedented level of involvement by NGOs in official and unofficial events, and signified the growing role of NGOs in international policy making. The growing NGO role in UN conferences can at least partly be attributed to the APC's work at providing training and access to information technologies at these conferences (Sallin, 1994).

As Huyer notes, during the Fourth World Conference on Women, held in 1995 in Beijing, the flow of global information and communication on women's issues, both practical and substantive, evolved significantly (1997). For instance, in the period just before the Beijing conference, WEDO⁴⁶ launched its 180 Days/180 Ways Women's Action Campaign. To enable and coordinate its worldwide distribution in a quick and efficient manner, WEDO set up an electronic conference and e-mail list on the APC network through the latter's Women's Network Support Program, which started in 1993. With a team of 40 women from 24 countries, APC made available user training and assistance in 18 languages.⁴⁷ This allowed WEDO to post Women's Caucus amendments and statements almost at the same time as they were being distributed "on the ground at key UN conference planning meetings".⁴⁸

Environnement et Développement dans le Tiers Monde⁴⁹ (ENDA TM) is a Dakarbased international NGO which promotes environmentally sound development; its SYNFEV (Gender and Development Synergy) sub-unit focuses on the role of gender in promoting sustainable development. Since most of the information distributed at the Beijing conference was in English, SYNFEV used the network node already set up by ENDA to send documents in French back to Francophone African groups. ENDA continues its use of electronic communications to promote sustainable development. For example, its trilingual Web site is part of the comprehensive Sustainable Development Gateway,⁵⁰ which brings together the online information from institutes working in similar areas, including Development Alternatives in India, FARN⁵¹ in Argentina and the Stockholm Environment Institute.

Regarding issues of access, SYNFEV's report on **Francophone African Women Active in Cyberspace**⁵² notes that while access was the primary challenge during the Beijing period, the past several years have witnessed significant improvements. In 1995, half of African countries were without direct Internet access whereas only two countries do not have access now.⁵³ While access remains problematic, the report notes that there have been key improvements:

This does not by any means imply that access is now easy for women's' groups in French-speaking Africa. However, political situations (governmental involvement, national policies, international assistance community's attention to development) and techniques (available tools, access costs) have evolved in leaps and bounds.⁵⁴

In response to the organization's changing priorities in the post-Beijing period, SYNFEV's Communication for Women Programme now focuses on "use" and "content" issues.

• On-Line Communities

The Web and electronic communications have revolutionized environmental and social justice campaigning and, arguably, helped to nurture a new North-South dialogue about democracy, social justice, development and human rights in an increasingly globalized world (Vidal, 1999b).

In on-line activist communities, the organizing principle is often less a question of geography than it is of shared concern; this is illustrated when groups from around the world campaign against the environmental practices of a single global corporation. Bollier (1996) contends that, as a network of believers committed to a common purpose, these on-line groupings of people and organizations are the definition of community. Nicola Bullard of Focus on the Global South, in Bangkok, notes that what may be described as "internetworking" can contribute to a sense of community among activists: "When I went to the MAI meeting in Paris I felt as though I knew all the people there already, even though I only knew their names via e-mail".⁵⁵

Citing the free exchange of ideas and information enabled by computer-mediated communications, Bollier (1996) describes the Internet as robust precisely because people share their information and resources without demanding a specific contractual payback. Arguably, it is this non-commercial approach of civil society that has caught some companies off-guard and meant that NGOs have often been first off the mark in the electronic battle to win public support in controversies about corporate responsibility.

As global corporations derive increasing advantages from their worldwide operations, calls from civil society for companies to both acknowledge these benefits and share the resultant wealth are increasingly vociferous. Web sites that critique the expansion of corporate rights without a concomitant increase in responsibility have proliferated. Several of these electronic sites of resistance have successfully exposed the links between global trade, environmental collapse and human rights abuses; their legacy today is that most major Northern NGOs and their global affiliates, as well as an increasing number of Southern-based organizations, maintain a growing, and often effective, presence on the World Wide Web.

• Web Sites of Resistance

In the absence of responsive government and in recognition of the increasing power of TNCs, social justice and environmental organizations are shifting their attention directly onto companies. In 1996, Greenpeace-UK's campaign programme director Chris Rose described this development as "politics without politicians" (cited in Bray, 1997:8). Rose's prediction of an increase in "unpolitics" has in several instances come true, particularly regarding NGO campaigns against repressive regimes. In democratic countries, however, the Internet allows for both lobbying of politicians through e-mail and fax servers, as well as the promotion of consumer boycotts.

While Hirschkop notes that "one cannot buy democracy off a shelf or download it from a Web site" (1996:98), research suggests that the power of computermediated communications to publicize and invigorate campaigns for social change in the material world is undeniable; the Free Burma Coalition, the Zapatistas, the Ogoni of Nigeria and their supporters, and the McSpotlight trade campaign each demonstrate the influence Internet-facilitated protest can have on global business interests by putting their operations under the spotlight.

Free Burma Coalition

And while the Burma-sanctions lobby is probably the first of its kind to take full advantage of the Net, it surely won't be the last. . . . International activism will never be the same (Holloway, 1996).

As Walter Truett Anderson notes, "corporations are going through a revolution of their own-a managerial revolution-as they apply new information technologies to all stages of production and distribution. . . . Individuals and non-governmental organizations are also becoming 'netizens' of a new information-based civil society which uses these technologies to increase participation in debates affecting their constituencies" (1997). And Frederick observes: "the forces of peace and environmental preservation have acquired the communications tools and intelligence-gathering technologies previously the province of the military, government and transnational corporations" (1993). It seems that the Internet role dissemination—particularly regarding corporate in information socioenvironmental responsibility-is rapidly assuming an important place on the world stage as the McSpotlight and Free Burma Web sites demonstrate. Coverage of their activities in the mainstream press underscores the growing visibility of civil society in the globalization debate.

In 1996, the Free Burma Coalition⁵⁶ (FBC) demonstrated the power that a small group of activists can wield through the successful use of a Web site and internetworking. As Mike Jendrzejczyk of Human Rights Watch Asia notes, "Cyberspace spawned the movement to restore human rights to Burma [Myanmar]. . . . The proliferation of information has put Burma higher on the US policy agenda than it ever would have been otherwise" (cited in Holloway, 1996). Although the Web site was created by exiled Burmese graduate student Zar Ni, its impact has gone far beyond the reach of a single person's conventional efforts to draw attention to a policy issue. Today the FBC network includes individuals and

organizations from all over the United States. As coordinator Zar Ni notes, one of the Internet's largest campaigns includes not only the Burmese diaspora but also scholars, academics and activists from around the world (cited in Barron, 1998). And while the Burmese military junta maintains tight control over communications by restricting the use of fax machines, modems and photocopiers, it appears that many still in the country count on getting the latest Web news via word-of-mouth (Pabico, 1999).

Partly as a consequence of the networks encouraged by the Web site, in September 1996, President Clinton declared that a ban on new investment in Burma would be imposed if it could be determined that the military government, known then as the State Law and Order Restoration Council (SLORC),⁵⁷ had committed large-scale acts of repression.⁵⁸ Although corporate lobbying resulted in a weakening of the law, US corporations were still forced into the defensive position as a direct result of the way in which the Internet was manipulated by a small group of activists across America who sent a deluge of e-mail to their representatives on Capitol Hill (Holloway, 1996).

Free Burma's Internet-facilitated campaign also contributed to the withdrawal of global firms Levi Strauss, Eddie Bauer, PepsiCo, Apple Computer, and Texaco (Barron, 1998). The FBC campaign is one of the earlier efforts to harness the Internet in the cause of trade and human rights issues; Web sites and other forms of electronic networking and communication continue to play crucial roles in keeping corporations in the eyes of the general public and policy makers alike. As Bray (1997:8) notes, advances in international communications mean that corporations allegedly involved in environmental and human rights abuses are now more at risk of exposure—not only in their home location, but also in their host location and the world over.

NAFTA and the Zapatistas

1 January 1994 marked the public coming of age of the Zapatista National Liberation Army (Ejercito Zapatista de Liberación Nacional, EZLN), which at this time started its occupation of several towns in Chiapas state. Under the leadership of Sub-Comandante Marcos, what has sometimes been described as the world's first postmodern revolution began. Dissatisfied with the paucity of coverage of the region's socio-economic crisis in the mainstream media, the EZLN—with the assistance of technologically attuned supporters—capitalized on the networking opportunities provided by the information age (Vidal, 1999a).

The socio-historical nature of the Chiapas struggle is complicated, involving issues of race, class, land tenure and ecology. Chiapas is one of Mexico's most impoverished states, despite its considerable natural wealth. Howard and Homer-Dixon (1996) argue that the underlying grievance of the EZLN, and its supporters, is the maldistribution of natural resources—especially land. In eastern Chiapas, the Selva Lacandona rainforest has been the centre of much controversy. Tangi (1998) notes that the indigenous Mayans are fighting not only for the rainforest itself but also for the right to self-determination, having lost much of their land to large corporations and local elites—a loss which forces them to cut into the rainforest. Furthermore, for several decades peasants under the direction of agrarian authorities had colonized the rainforest.

Colonists to the area often imported intensive *milpa* (traditional peasant cornfield) cultivation and cattle, resulting in considerable destruction of the Selva Lacandona. Collier et al. (1994) note, however, that under pressure from international environmental and indigenous-rights groups, the government began to set aside tracts of land for bioreserves. In 1992, President Salinas de Gortari revoked the land reform policies under Article 27 of the Constitution. The consequence of this policy change was that land was closed off to thousands of peasants, and the remaining open land was subjected to more intensive exploitation. In addition, the government hired a logging firm to manage the Montes Azul bioreserve on behalf of the Lacandan Mayans. Critics, however, claimed that most of the income earned from the forest went to politicians. Finally, Collier maintains that in the view of many people the government had replaced landowners as the adversary.

It was in this climate of poverty and land conflicts that that the Zapatista rebellion was born under the leadership of Sub-Comandante Marcos. In an interview published in **Tiempo**, Marcos argued that as a result of the repeal of Article 27, "We and our families have been sold. . . .What can we do? We did everything legal that we could so far as elections and organizations were concerned, and to no avail" (4 February 1992). Tangi (1998) argues that the catalyst which finally led the EZLN to the 1 January 1994 rebellion was the NAFTA accord, which enabled the flooding of the Mexican market with cheaper corn from the United States, thereby destroying the only cash-generating option left for *indigenas* and *campesinos*.

In the documentary, **A Place Called Chiapas**, filmmaker Nettie Wild describes the media as Marcos' "long-reaching missile" (1997). The story of the Zapatista struggle against the Mexican government, posted on the Internet, catapulted the rebels and their supporters into the international spotlight. With an army estimated at between one and two thousand men, the Zapatistas and their on-line sympathizers understood that their battles with governmental troops numbering in the tens of thousands needed the assistance of the Internet.

The global dissemination of the plight and demands of the Chiapanecans not only garnered worldwide support and thrust the Mexican government into the spotlight, it also engendered a great many networks focusing on other social change initiatives. Cleaver (1997) predicts that the "Zapatista effect" which has subsequently spread to social movements around the planet may ultimately threaten neoliberalism more than the so-called "Tequila effect" that reverberated throughout financial markets following the collapse of the Mexican peso in 1994. Ronfeldt et al. (1998) describe how the EZLN uprising led civil society organizations from around the world to "swarm" into Mexico via electronic and physical means. As the authors document, the Zapatista revolution, particularly between 1994 and 1996, provides a seminal example of the rise of network forms of organization that facilitate, to an unprecedented degree, linkages among hitherto isolated groups.

Shell Nigeria and the Ogoni crisis

As the Shell Nigeria case demonstrates, even if corporations are not perceived to be directly responsible for trade-related environmental and human rights abuses, they are increasingly expected to use their influence to affect change in government policy. In a recent television documentary, **Globalization and Human Rights**, John Cavanagh, of the Institute for Policy Studies, noted that "in many parts of the world, large corporations are operating in countries where basic fundamental

human rights and worker rights are undermined, are not enforced, are violated. And so companies in a sense become complicit with governments, with dictators, with violators of those basic rights".⁵⁹ Critics claim that given Shell's role in Nigerian society, it could have used its influence to prevent the hanging of Ken Saro-Wiwa and his companion activists. In the view of many NGOs, it is no longer acceptable for corporations to assume a disinterested pose when it comes to state politics; activists for social change regard the lines between state and corporate interests as increasingly perforated.

As Murphy and Bendell point out, the plight of the Ogoni gained worldwide attention only once it had entered the consciousness of Northern consumers. This happened largely as a result of the fact that it had started to appear on global communication networks:

The flow of information around the world during political uprisings and following the disappearances or murders of notable campaigners lends added political weight to these events. The world can now hear the activist side of the story. In the information age, atrocities cannot be easily covered up (1997:44).

While people from the Niger Delta communities had been protesting against the environmental impacts of Shell's operations in the Delta since the 1980s, outcry at the supranational level occurred only following the publicizing of the situation through communications technology. In May 1996, Shell Petroleum Development Company of Nigeria pulled out of Ogoniland. According to a company representative, while it continues its community programmes in the area, SPDC will not resume oil production until "all Ogonis" support it.⁶⁰ The Shell Nigeria case points to an important aspect of successful campaigns against global corporations in the information age: it is often not enough to protest in isolation and only at the local level. Campaigns for greater corporate accountability must take place not only at local operations in the South but also in the backyard of corporate headquarters in the North, where most TNCs are domiciled. The manner in which the Internet was manipulated to circumvent the lack of knowledge or the unresponsiveness of mainstream media to the Ogoni situation is another crucial aspect of the case.

McSpotlight on corporations

McSpotlight was created for several reasons: "to support the heroic efforts of campaigners around the world attempting to expose the realities behind the glossy public images of multinational corporations [and] . . . to demonstrate to other progressive campaigners that the Internet provides a new forum that need not rely on the attention of the traditional media—which invariably fails to fully cover progressive campaignes.⁶¹

Another one of the earlier and more powerful combinations of ground-level organizing and cyber-action against corporations is the McSpotlight Web site. In 1990, the McDonald's corporation brought legal action against two individuals for distributing **What's Wrong With McDonald's**—a leaflet that accused the global corporation of socially and environmentally harmful practices—outside a London franchise. With its David and Goliath dimension, the "McLibel" case did manage to capture the attention of the world's media. Although the defendants lost the longest-running case in English history, arguably the ultimate loser in the accompanying public relations battle is the food industry giant.

In February 1996, the McSpotlight Web site was launched on the Internet from mirror sites in Chicago, London, Auckland and Helsinki;⁶² the McLibel defendants activated the site using a laptop connected to the Internet through a mobile phone outside a McDonald's restaurant in London.⁶³ The McSpotlight site states: "McDonald's spends over US\$ 1.8 billion a year in broadcasting their glossy image to the world. This is a small space for alternatives to be heard." Initially the site contained 1,300 files; a year and a half later it contained more than 21,000 files. With its content updated daily by volunteers, the site contains full court transcripts of the 313-day trial, the contentious leaflet (translated into 12 languages) and dozens of witness statements, scientific reports, newspaper articles and internal corporate memos. The "Issues" section of the site is sub-divided into various areas of concern including the environment, multinationals and global trade, free speech, employment, and McDonald's international expansion.

While its original intention was the provision of uncensored information on the trial, the scope of the McSpotlight Web site has broadened to other multinational corporations in a variety of sectors, including pharmaceuticals, oil, tobacco, baby milk and household cleaners. Targeted corporations include Hoechst AG, Philip Morris, Nestlé, Unilever, Exxon and Texaco. Between February 1996 and May 1997, the site had a monthly average of 800,000 hits and 315,000 unique or individual visitors. ⁶⁴ The irony enabled by McSpotlight is that the controversial document McDonald's so disliked was ultimately read on the Web site by over 33,000 people as of mid-1997, and it continues to draw visitors today from all over the world.

6. RALLYING POINT: MULTILATERAL AGREEMENT ON INVESTMENT

Environmental and labour groups around the world strongly oppose the agreement, arguing that it gives too much power to investors at the expense of taxpayers. . . The agreement is designed to help manage some \$8.3 trillion in foreign direct investment around the world. . . . Under the pact, countries would commit to treating foreign investors and their investments the same as by their own citizens. Investment laws and regulations must be open, transfers of capital, profits and dividends must be freely permitted and investments must be protected against nationalization (Reuters-Bloomberg, **International Herald Tribune**, 14-15 February 1998).⁶⁵

The opponents' decisive weapon is the Internet. Operating from around the world via Web sites, they have condemned the proposed agreement as a secret conspiracy to ensure global domination by multinational companies, and mobilised an international movement of grass-roots resistance (deJonquières, 1998).

As Carley and Spapens argue, "in the multilateral and bilateral sphere, as with national development, a major problem is the recurring failure to integrate environmental and social objectives with economic and trade objectives" (1998:175). While major corporations and trade organizations claim a commitment to the three principles of sustainable development, the preference for the economic corner of the triangle seems clear; social and environmental concerns attract much

less attention.⁶⁶ For example, at the Web site of the OECD⁶⁷ visitors can access many documents that illustrate the organization's perspective of sustainable development. For instance, in **Sustainable Development: A Renewed Effort by the OECD**, the organization explains the dimensions of sustainable development thus: "environmental protection has to be balanced with economic growth when the two are in conflict, although policy should be aimed at integrating environmental concerns with the economic and social imperatives and, whenever possible, exploiting complementarities" (OECD, 1998b). It would seem that OECD favours quantitative growth over social and environmental concerns—supporting the latter only when it is economically affordable and does not threaten growth.

In the early months of 1995, the OECD attempted to formalize the international trade liberalization agenda in the form of the Multilateral Agreement on Investment. Many observers, such as international trade lawyer Barry Appleton, believe that the MAI is the world's most aggressive investment treaty, even surpassing many of the provisions under the WTO and NAFTA (cited in Clarke and Barlow, 1997). The guiding principle of the proposed trade accord is that investors require stable markets and equal opportunities to compete with domestic firms.

The overarching principle of the proposed MAI is "non-discrimination" (OECD, 1998a). In other words, parties to the agreement agree to treat foreign investors no less favourably than they treat their own. On the surface, the concept may seem to be an equitable proposition; however, the proposed global trade accord, like the interpretation of sustainable development that informs it, is highly controversial.⁶⁸ Critics of the MAI point out a myriad of weaknesses inherent to its structure, not least of which are its projected socio-environmental effects in both economically advantaged and disadvantaged nations. As Martin Khor (1998) argues, the MAI text assumes that the suggested regime applies justly to all parties and that liberalization leads to efficient resource use, improved standards of living and job creation.

Many other environmental and human rights NGOs also challenge the assumption embodied in the work of the OECD, i.e., that the open-market system is a precursor to improved environmental and social standards. While most civil society organizations are not against foreign investment, per se, at issue is the national right to control such investment (Coates, 1998). Some observers argue that rather than building the capacity of countries to regulate investment, the MAI ascribes too many rights to foreign investors (Coates, 1998).

Arden-Clarke (1998), of WWF-International, argues that the OECD needs to reorient the MAI to address social, labour, consumer and development concerns as inseparable from the environmental aspects of sustainable development. The NGO introductory statement read before the European Union Brussels consultation on the MAI in late 1998 contends that "we believe that the burden of proof is on the OECD governments to show how investment liberalization measures proposed in the MAI will contribute to sustainable development, rather than simply strengthening the hand of foreign investors and contributing to further economic and social instability, with attendant environmental risks".⁶⁹

The controversial principle of national treatment precludes the application of most favoured nation status (MFN) unless the granting country agrees to ascribe MFN treatment to other investors. And while the OECD hosts the negotiations for the MAI, it is understood that the ultimate target of the agreement is developing

countries—which have not been invited to participate in the proposed accord's design.⁷⁰ Khor contends that the national treatment principle would render futile state policies made in the interest of national objectives. In the case of small local firms, governments would be unable to protect them against foreign firms that may be many times larger and more financially stable. And in the case of small-scale firms, state support mechanisms would be denied since such action under the MAI could be construed as favouritism and subject to harsh penalties.

In addition to the principles of national and MFN treatment, another important criticism of the MAI concerns potential conflicts with existing multilateral agreements. For example, the UK Parliament's Environmental Audit Committee recently criticized the failure of governments to address the relationship between the proposed global trade agreement and multilateral environment agreements, such as the Climate Convention and the Montreal Protocol (UK EAC, 1999).

"Cyber-Globalization" Against the MAI

'This is the first successful Internet campaign by non-governmental organizations', said one diplomat involved in the [MAI] negotiations, 'it's been very effective'. The irony in this outcome is that the OECD, which has been an ardent advocate of globalization and has done much research into its effects, did not recognize that advocacy groups would use cyber-globalization to further their own ends (Drohan, 1998).

They [opponents of further trade liberalization] have embraced the Internet with a vengeance, and their drive has attained powerful momentum, intimidating governments and politicians. They helped defeat fast-track negotiating authority in Congress and held back the Multilateral Agreement on Investment (Lucentini, 1998).⁷¹

An important characteristic of the networking and organizing behind the work of MAI-critical groups is the use of the Internet to share documents and strategies, and to both network and orchestrate protests and letter-writing campaigns. By the time governments and organizations supporting greater trade liberalization had started to realize the Internet's potential in promoting their viewpoint, NGOs had already used ICTs proactively and to considerable advantage in the MAI debate. As Stephen Kobrin notes, "the story of the MAI is a cautionary tale about the impact of an electronically networked global civil society" (1998:99).

Certainly, one of the more revealing aspects of this on-line communication is that while advocates of trade liberalization regimes often attempt to "ghettoize" their critics, electronic networking demonstrates that concern for the ramifications of an initiative like the MAI is by no means limited to environmentalists. Tom d'Aquino of the Business Council on National Issues⁷² belies this reality; rather, he dismisses the MAI's detractors as out-of-touch leftists:

MAI has been painted by the left as this great Satan. To say this is going to be the final screw-down, and that we are going to lose our sovereignty is madness, absolute madness. It's only through economic emancipation, only through being economically stronger, that we have the best chance of protecting our independence and our sovereignty (cited in Newman, 1998).

The problem with this portrayal of MAI critics is that it masks the growing network of interests opposed to the agreement. While OECD Secretary-General Donald

Johnston may publicly attribute the hostility to "unions and greens", the increasingly vociferous chorus of discontent comprises a much broader constituency. Indeed, it ranges both ideologically and geographically from Friends of the Earth International in the Netherlands, to the Third World Network in Malaysia, to the Alliance for Democracy in the United States. If anything, the concern generated around Fast Track, the MAI and other trade liberalization initiatives has galvanized support across traditional political divides.

The decisive moment in the on-line battle to defeat the proposed trade agreement was the MAI's "liberation" by NGOs in early 1997.⁷³ Until then, the MAI was a little known document; now, however, mailing lists and Web sites, such as that of the Preamble Collaborative, dealing specifically with the proposed agreement, abound. Often Internet sites link to other "friendly" sites. Once the surreptitiously obtained negotiating text was posted on the Internet, its dispersal was rapid and farreaching. As Vidal (1999b) notes:

The campaign to stop it [the MAI] depended on the Web and spread like wildfire. After two years, more than 600 citizens' groups, including unions, workers parties, consumer organizations, development and environmental groups in dozens of countries were exchanging information, co-ordinating opposition and alerting politicians, the media and civil servants.⁷⁴

Another example of the global on-line networking and rapid information sharing critical of the MAI can be found at the Web site of the Institute for Global Communications (IGC)—a hub of progressive electronic networks including PeaceNet, EcoNet, LaborNet, WomensNet, and ConflictNet.⁷⁵ The site features "Issues Pages", including one on the possible effects of the MAI on developing countries. Before landing on the IGC site, the document was posted in an IGC member conference by the MAI project coordinator of Public Citizen's Global Trade Watch. She had received the information from the World Development Movement in London.

Circulated through e-mail channels all over the world, the NGO Statement on the MAI, endorsed by 565 organizations in 68 countries, brings together groups involved in women's rights, environment, development, human rights, labour issues and consumer rights. Arguing that negotiations should be altered or even disbanded altogether, the statement decries the absence of both non-OECD nations and NGOs. It claims that the proposed accord undermines the modest progress made toward sustainable development since UNCED and that it fails to include any of the relevant international agreements, such as the UNCTAD 1981 Set of Multilaterally Agreed Principles for the Control of Restrictive Business Practices, the Beijing Declaration on Women and the Rio Declaration.

It is not simply environmental NGOs that have noted the impact of electronic communications on international campaigning. As mentioned earlier, in the followup evaluations to MAI negotiations in April 1998, OECD participants referred to the "chill effect" of Internet-aided action against the proposed agreement. Just prior to the October 1998 round of MAI negotiations, the Government of France released a report it had commissioned to inform its approach to the proposed trade accord. The Lalumière (1998) report clearly notes the unprecedented role of global civil society in international trade agreement negotiations: L'AMI marque donc une étape dans les négociations économiques internationales. Pour la première fois, on assiste à l'émergence d'une 'société civile mondiale', représentée par des organisations non gouvernementales, qui sont souvent implantées dans plusieurs États et communiquent au-delà des frontières. Cette évolution est sans doute irréversible.⁷⁶

The report also refers specifically to the activism of NGOs such as Greenpeace, WWF and Friends of the Earth. According to the report, these groups were able to get their critical analyses of the proposed accord to not only all OECD representatives, but also across the world to many other interested parties and stakeholders. The authors note that the dissemination of these documents was aided by ICTs:

En outre, le développement de l'Internet bouleverse l'environnement des négociations. Il autorise la diffusion instantanée des textes en cours de discussion, dont la confidentialité devient de plus en plus théorique. Il permet, par delà les frontières nationales, le partage des connaissances et des expertises. Sur un sujet pourtant très technique, les représentants de la société civile nous sont apparus parfaitement informés, et leurs critiques bien argumentées sur le plan juridique.⁷⁷

Indeed, according to the authors, with well-informed and persuasive arguments, civil society representatives were able not only to convince many other NGOs of the potentially destructive elements of the MAI, but they were also able to introduce serious doubt into the minds of the French government itself. Citing the threat to national sovereignty in the face of corporate pressure, and the exclusion of emerging economies, the French government announced its withdrawal from the negotiations just prior to the OECD's October 1998 meeting in Paris.⁷⁸ Following the closure of the October round, MAI negotiations were downgraded to consultation status.⁷⁹ The information dissemination, internetworking and relationship building it has engendered among concerned civil society organizations is a tide which, apparently, cannot be held back—if there is the political will and action required to protect and encourage it.

7. NGO WEB SITES: KEEPING BUSINESS IN THE SPOTLIGHT

◆ Objectives and Content

More and more, NGOs are discovering the tremendous value in the use of electronic mailing lists and Web sites in preparing for conferences and events—there is virtually no comparison between the degree of communication and the breadth of participants in conference and event organising—especially at an international level—once e-mail and especially the use of electronic mailing lists takes over from conventional mail and fax as the primary means of communication.⁸⁰

We have one very important factor in our favour—we are not trying to sell something for a financial profit at the expense of our futures. Our primary purpose in our Internet campaigning, as in our 'on the ground' campaigning, is to bring into the public domain information which is hidden by companies who make a profit out of environmental abuses.⁸¹

This paper has argued that the Rio Earth Summit marked a watershed for global civil society as NGOs, aided by ICTs, have moved in to fill the void left by retreating governments. And although social change groups have had to share the podium with TNCs and their associations, these groups have harnessed the Internet for their own purposes. For instance, leading environmental voices from both North and South can now share their best practices more broadly, more quickly and less expensively than conventional media allows. As the Free Burma Coalition, the EZLN, the Shell Nigeria protest and McSpotlight cases demonstrate, ICTs allow citizen groups to expand their networks by forming strategic alliances that cross national borders with an unprecedented fluidity.

As part of the primary research that informs this exploration into the role ICTs play in invigorating the corporate responsibility debate, several important NGOs were surveyed and their Web sites reviewed for content and structure. Questions sought to complement the information provided by the Web sites and were individualized accordingly. The purpose behind this time-consuming but personalized enquiry was to elicit organization-specific information; in other words, the intention was not to survey all groups with an interest in trade and environment but to better understand the Internet communications of some of the more active on-line organizations (see Appendix 1).

A typical NGO Web site in the survey contains most or all of the following elements: a home page that presents the contents of the site; e-mail and conventional contact information; the organization's mission statement and history, activities and campaigns; electronic mailing lists or listservers and/or bulletins; interactive action alerts; and links to other relevant Web sites, such as partners' sites or on-line research resources.

Corporate Watch⁸², a joint project of the Institute for Global Communications and the Transnational Resource and Action Center, is one of the most comprehensive Web sites dealing with international business accountability for worldwide social and environmental degradation. Intended primarily for "everyday Internet users" including journalists, activists, policy makers, teachers and students, Corporate Watch is committed "to exposing corporate greed by documenting the social, political, economic and environmental impacts of transnational giants". The Web site of the self-described "watchdog on the Web" exemplifies how rich in content a site can be; for example, Corporate Watch includes:

- an eight-part research manual on transnational corporations;
- monthly "greenwash" awards highlighting questionable environmental advertisements, given out by Corporate Watch and Greenpeace (Web site visitor nominations are also encouraged);
- an image gallery, with a permanent environmental art collection and rotating monthly exhibits;
- in-depth analysis of corporate globalization, including reports from the Institute for Policy Studies in Washington, DC and the New Delhi-based Public Interest Research Group;
- news from various sources, including Multinational Monitor, the Third World Network, and Ecuador-based Oil Watch;
- direct links to the Corporate Watch Affiliate Group, a collection of organizations providing in-depth research services; and
- links to hundreds of other Web sites, including corporate sites and a variety of Internet information sources related to TNCs.⁸³

Advantages Over Traditional Media: Dissemination, Interactivity and On-line Campaigns

According to questionnaire respondents, the key advantages of Web sites over traditional media lie in their interactivity, cost-effectiveness and efficient dissemination of current information. One of the ways that Web sites disseminate effectively is by incorporating the push technology of electronic mail. An example of this is an electronic mailing list that sends subscribers regular information on particular subjects or areas of concern directly to their e-mail addresses. With appropriate software, a mailing list can also bring subscribers back to an organization's Web site by including hyperlinks.⁸⁴ This marriage of e-mail and Web site technology is particularly effective for gathering large amounts of information in one place and for directing e-mail users to Web sites. For instance, a mailing list on the MAI contained a list of links to relevant documents on a variety of global Web sites. The links included Oxfam-Great Britain's analysis of the OECD document, Corporate Watch's extensive list of MAI links and OneWorld's posting of relevant digitized newspaper articles from around the world.

Dissemination has many other advantages, including the ability to distribute data and analysis broadly and to link directly to corporations, politicians and policy makers. For instance, the Web site of the Pesticide Action Network North America⁸⁵ (PANNA) enables visitors to subscribe to a free weekly news service containing items on sustainable agriculture from around the world, as well as information regarding the effects of pesticides and relevant regulatory decisions.

The Web can be overwhelming due to the number of groups posting information on it. But "supersites" conveniently bring together sites around specific themes. Social change and environmental groups, for example, can be found on a number of supersites. OneWorld⁸⁶ is one such supersite, a self-described journalistic conduit for the information produced by a partnership of 300 NGOs and media organizations. Oxfam and the Panos Institute, for example, are linked on-line at the OneWorld supersite and also maintain independent Web sites. OneWorld's editor, Mark Lynas, describes the purpose of the supersite thus: "to gain the human rights and sustainable development community significant extra 'eyeballs' than they would get if they were scattered in far-flung corners of cyberspace".⁸⁷ In order to address the dearth of opinion—on-line or otherwise—which is available from developing countries, OneWorld offers free Web sites and editorial prominence to Southern-based NGOs.

Organizations with access to the Internet are not only able to circumvent traditional media outlets and reach the on-line public directly, but they are also able to promote alternative analyses of conferences, proposed trade agreements and other important documents. The dynamic interactivity offered by Web sites and electronic mail means that groups can exchange information and analysis on late-breaking events quickly and widely. Indeed, as Elmer-Dewitt (1997) notes, on the environmental battlefront, currency is crucial. For instance, shortly after the OECD posted a UK DFID-commissioned report on the development implications of the MIA (Fitzgerald, 1998) on its Web site, the World Development Movement (Coates, 1998) and the WWF-UK (Mabey, 1998) produced rebuttals that were posted on the Web and circulated on electronic mailing lists worldwide.

Kenny Bruno (1998) underscores this point by noting that the key to winning battles with corporations is to ground campaigns in documentable facts. At the Web site of US-based Friends of the Earth,⁸⁸ visitors can download an entire document that analyses the MAI, proposes alternatives and suggests various forms of actions against it. This on-line manual also lists resources for further research, including links to helpful data on the Internet. The Web site also links to Europebased Friends of the Earth International.⁸⁹ On its "Trade and Environment" Web page, visitors can access an extensive list of links to related on-line resources including the sites of the WTO, Third World Network, WWF's Expert Panel on Trade and Sustainable Development, the OECD and UNCTAD. Users can also access important documents posted on the Internet such as NAFTA, the MAI and the Trade and Environment Database. Malini Mehra reflects earlier statements cited in this paper when noting that, with regard to the Multilateral Agreement on Investment, the Internet has been an "absolutely crucial" instrument for rapid engagement in the debate as it unfolds. Furthermore, through the "multiplier effect", the medium ensures that late-breaking news, data and analysis are strategically transmitted instantly and cheaply to like-minded organizations around the globe.⁹⁰

The World Wide Web also hosts dozens of sites that help to deconstruct and analyse complicated negotiation processes and the documents they produce. For example, in an attempt to demystify the trade-related documents produced by institutions like the OECD, the Web site of Public Citizen's Global Trade Watch includes a "Pocket Trade Lawyer" guide, as well as analysis of the MAI, GATT, WTO and other important trade organizations and initiatives. The site also tracks the development of other trade liberalization negotiations, including the Crane Sub-Saharan Africa bill and the Caribbean Basin Initiative. And the Third World Network⁹¹ (TWN) of non-governmental organizations was one of the earlier groups to protest the blaming of the South, by affluent nations, for global environmental ills. This organization contends that corporate participants co-opted UNCED. Its Web site contains articles regarding the deleterious impacts of trade liberalization on developing nations, including "The spirit of Rio has vanished" and "Globalization widens the rich-poor gap".

In addition to mailing lists and on-line forums, the action alerts on many NGO Web sites not only educate and update visitors about an organization's activities and campaigns—they also enable users to draw up letters of protest to be sent via the Web site, via e-mail or fax server, directly to relevant corporations, policy makers and politicians. The Web sites of organizations such as Greenpeace International⁹², the Rural Advancement Foundation International (RAFI), Pesticide Action Network (PAN) and the Rainforest Action Network (RAN) feature action alerts targeting corporations in sectors that design and manufacture products deemed socially and environmentally harmful by the NGOs.

RAFI,⁹³ an international NGO headquartered in Winnipeg, Manitoba, promotes agricultural biodiversity and examines the effects of intellectual property rights on agriculture and world food security. On 29 September 1998, RAFI initiated a worldwide e-mail campaign with the goal of cutting off Monsanto Corporation's negotiations with the US Department of Agriculture (USDA) to license and control the Technology Protection System US patent #5,723,765 (Control of Plant Gene Expression) that the Consultative Group on International Agricultural Research (CGIAR) believes would threaten food security. Critics also refer to this technology as the "Terminator" because it sterilizes seeds so that it is not possible

to save them for future crops. This forces farmers to buy new modified seeds and pay the technology fee.

Opponents of the technology dispute USDA claims that the technology will help farmers in developing countries. For instance, RAFI claims that the potential impact of the technology is global since the owners of the product's patent are intending to apply for patents in 87 countries. The RAFI Web site is designed so that users from around the world can review the Terminator patent document for their country when composing their letters of protest. As of 18 October 1998, the Web site's "Terminator Ticker" had recorded 1,606 letters from 49 countries to USDA Secretary Dan Glickman (see Appendix 4). ⁹⁴ The RAFI Web site takes visitors section by section through the US Department of Agriculture's response to the controversy.

Comprised of 150 grassroots organizations from around the world and representing over 30,000 members, RAN uses its interactive Web site⁹⁵ in all of its major campaigns. RAN has employed the Web as an organzing and campaigning tool since 1994. In 1996, J.C. Callender took over the directorship of the ultimately successful Boycott Mitsubishi Campaign. He and his colleagues have since used the Web to provide site visitors with the following:

- general campaign information and the background of the boycott;
- paperless versions of campaign updates;
- e-mail and faxes from an alterable template to governmental and corporate decision-makers;
- RAN's template letter, a target government/corporate response letter and RAN's counter-response in a concise format; and
- information on upcoming events, including demonstrations, rallies and conferences.

RAN's on-line activist tools have leveraged the organization's influence in other campaigns. The Web site's January 1998 action alert featured the wood processing operations of the Solcarsa Company, a subsidiary of Korean logging firm Kumkyung. These operations took place in the most extensive intact tropical rainforest in the Western hemisphere—the North Atlantic Autonomous Region in Nicaragua—which is also the traditional homeland of the Rama, Sumo and Miskito Indians. The impetus behind the protest was the Nicaraguan Ministry of the Environment and Natural Resource's granting of a vast logging concession to Solcarsa.

Opponents of the concession claimed that this action contravened the constitution, which requires corporations to first consult with regional advisory councils to determine environmental impacts. And although the Nicaraguan Supreme Court eventually ruled that the logging concession was unconstitutional, critics claimed that both the environmental ministry and President Aleman had refrained from stopping Solcarsa's operations. RAN's action alert resulted in thousands of protest letters being sent to the Nicaraguan president. By January 1998, this strategy helped bring about the government ban on Solcarsa's operations in the country.⁹⁶

In December 1998, the WWF-International⁹⁷ launched one of the Internet's most sophisticated on-line activist tools: the Panda Passport, an interactive communications and campaigning tool for the environment. Passport holders are able to choose the location and level of involvement they wish in 85 areas of the world and through several methods of action, including e-mail petitions (e-

petitions), electronic postcards and letters, donations and faxes. Currently, there are more than 900 Passport holders; the WWF-International notes that membership in this free initiative is growing daily, resulting in hundreds of people being just minutes away from participation in conservation campaigns.

Internet communication strategies figure in all of Greenpeace-International's activities including its separate forests, climate, oceans, ocean dumping, genetic engineering, toxic and nuclear campaigns. According to the NGO's Communications Development Manager, "we make all campaign teams aware of the potential uses of the Internet in the planning stage and then talk them through the details when the respective campaign activity gets close to implementation".⁹⁸

Greenpeace International's Climate Change Campaign has lobbied corporations, such as Shell, to withdraw from the Global Climate Coalition (GCC).⁹⁹ The yearlong campaign eventually resulted in the oil giant's capitulation; at the launch of **The Shell World Report—1998: Profits and Principles**¹⁰⁰, the Chair of Shell Transport and Trading Company announced that they would leave the GCC due to "irreconcilable differences". While Greenpeace notes Shell's withdrawal on the NGO's Web site, an on-line press release also remarks that although the oil giant publicly supports precautionary action¹⁰¹ regarding climate change, it nevertheless continues oil explorations in the Arctic and North East Atlantic. Greenpeace has called for an end to such developments and increased commercialization of renewable energies (Greenpeace International, 1998).

The communication enabled via Web sites can also be used to convey moral support for struggles on the other side of the planet. For example, UK-based Oxfam has campaigned to support the efforts of a South American community struggling to set up a violence-free community. Web site visitors sympathetic to the situation of these people can immediately compose an electronic message of support that Oxfam will relay to the people. The organization's Internet Project Manager¹⁰² also notes the usefulness of the Web site for campaigning purposes; for instance, Oxfam's "Urgent Action" page not only generated over 100 expressions of support for the Community of Peace in San Jose de Apartado, Columbia, but it also led to over 40 sign-ups monthly to their Cut Conflict campaign.

Audrie Krause, Executive Director of NetAction, notes that the Web is also very useful because it allows considerable amounts of information to be archived and accessible to a global audience.¹⁰³ For example, back issues of magazines, newsletters and bulletins may be easily sent via the Internet. Databases containing large amounts of information are also made accessible through Gopher¹⁰⁴, FTP¹⁰⁵ and the Web. UNEP has produced a digital version of its **Global Environmental Report 1997** and launched it on UNEP Web servers in Kenya, Japan, Mexico, Switzerland and the United States. Aimed at educators, policy makers, environmentalists, scientists and journalists, the report is an environmental reference resource that looks at the global environmental assessment process. It describes the state of the environment and trends from seven regions of the world and includes 70 environmental global and regional graphics.¹⁰⁶

In addition to the dissemination and interactivity offered by e-mail, Web sites and mailing lists, relative cost-effectiveness and efficiency are crucial advantages of electronic dissemination over conventional media. As Robert Pollard notes, the speed, cost and ease of dissemination offered by a mass distribution of pamphlets represents a considerable expense for many activist groups, whereas a Web site and e-mail enable a global reach at minimal cost once the site is operational.¹⁰⁷ The

intention here is not to suggest that setting up an electronic dissemination system is cheap, but rather that compared with postal services as well as local and longdistance phone calls and facsimiles, computer-mediated communications are not only quicker and more reliable but also more cost-effective.

Electronic distribution is also considerably less labour intensive, involving fewer people and thus representing greater cost savings. Aside from site maintenance and equipment upgrades when necessary, a single document posted on a Web site may be read and downloaded by thousands of individuals and organizations without significant additional costs to the owner of the Web site.

Civil society organizations increasingly attract visitors to their Web sites, many of whom would not have come to the groups as readily—if at all. The Corporate Watch site averages 27,000 user sessions monthly. According to Oxfam-UK's Web Editor, the site averages 8,500 to 10,000 unique visitors monthly. The WWF-International Web site is especially robust: as one of the busiest Web sites in the environmental sector, it receives on average 160,000 hits daily or approximately 10,000 visitors according to Webmaster Andrew Pattison.¹⁰⁸ With a full-time site administrator and several support staff, WWF is able to update the site daily. In a typical month, five news features, 12-15 press releases, three to four publications, one monthly journal, a main feature (such as the Living Planet Index Report), and three smaller features with on-line lobbying are added to the site (see Appendix 3).

In line with the experiences of cyber-activists against the Multilateral Agreement on Investment, respondents to the questionnaire administered for the present paper by no means suggested that ICTs supplant conventional media. Mark Lynas of the OneWorld supersite points out that the Internet provides a powerful networking and educational tool, and that it may also be used in combination with more traditional media to great effect:

We also use the Internet to feed into the diversity and effectiveness of traditional media—especially radio. We have just set up a programme exchange, where stations around the world can upload and download programmes to be broadcast on each other's stations. This is much cheaper than using satellite, is not time-bound, is interactive and much quicker than putting tapes in the post. In addition, an unlimited number of stations can use a single digital file—at very low marginal cost.¹⁰⁹

Indeed, survey respondents praised Internet communications because they are especially useful for sharing current data and analysis, for coordinating events and actions and for building and enhancing strategic relationships with other civil society groups. NGO Web sites are also used increasingly to attract membership support. For instance, the home page of the Rainforest Action Network enables visitors to order RAN merchandise, and the revamped Web site of Greenpeace International is designed to lead visitors to donate to the organization. Another fundraising technique used on sites is the offering of areas restricted to paying members. While most of the NGO Web sites examined are designed to exchange information, facilitate campaigns and inform at no cost to visitors, it is important to consider accessibility when membership fees are involved.

Disadvantages of On-Line Campaigns

While respondents ascribe key benefits to Internet communications, some did articulate several important challenges presented by the technology. The limitation most commonly noted reflected a concern with access for economically disadvantaged individuals and organizations in both the North and the South. As Lori Wallach, Director of Public Citizen's Global Trade Watch, remarks: "I'm a convert to the use of information technology. I was sceptical at first. Since 40 per cent of our information goes to non on-line groups, the question of access is still really key".¹¹⁰ And even when organizations do have access to computers and telephone lines, as Lynas notes, there is a lack of standardization in the operating platform. In a practical sense, this means that although the problem is not insurmountable, Web site architecture needs to reflect the fact that there are many different browsers and connection speeds available.¹¹¹ This is an especially important consideration when sites target under-resourced organizations and individuals from both North and South. For instance, Focus on the Global South produces a **Focus-on-Trade**, a bulletin that is available on the organization's Web site as well as to e-mail subscribers, of which there are over 1,200. Due to the possibility of instant distribution, the editor of the electronic bulletin can respond very quickly to related issues as they arise and then share this information with subscribers instantly.

Another disadvantage articulated by survey participants concerned the volume of information that circulates on the Internet—a fact which is both a benefit and a drain on organizational resources. The e-mail feedback mechanism of Web sites can result in an inundation of requests for information from organizations. While this may be good for educational purposes, responding to e-mail from the public can be a formidable task, particularly for under-resourced groups. Moreover, as Bullard cautions: "You end up spending your life downloading and sending e-mails and this is a great danger to original thought and reflection which are crucial aspects of any activism".¹¹²

Another challenge presented by Internet communications relates to the quality of content transmitted almost instantaneously from sources all over the planet. As Vidal (1999b) cautions, the democratic appeal of the Web sometimes comes at the cost of the reliability of the information posted. Questionnaire respondents in this study note that given this lack of quality control, it is as important as ever to exercise discrimination when selecting which electronic sources of material, such as Web sites and mailing lists, are more credible and reliable than others.

In an attempt to reduce the gap between technology haves and have-nots, many NGO sites are often designed with the low-end user in mind. As noted earlier, the OneWorld supersite attempts to bring Southern NGOs on-line by providing Internet space for their home pages. Oxfam considers the lower end user whether they are in the North or the South. As Internet Project Manager Julia Flynn notes:

Our strategy is to reach as many users as possible, and we endeavor to make information on our activities and analysis available using low-end browsers. In achieving this we use different styles of presenting information throughout the site—for example, policy papers are presented in a straightforward style and our campaigning pages are more interactive and designed for impact, using both images and facts and figures to convey our campaigning messages.¹¹³

Research into the use of information technology by citizen groups to lobby against the MAI demonstrates that while activists recognize the impetus the Internet provides their lobbying efforts, they do not suggest that electronic networking should, or even can, supplant the street-level education and organization characteristic of this century's most effective citizen movements. Certainly, on one end of the spectrum are those who herald the Internet as the saviour of contemporary activist struggles, while at the other end there are the sceptics who do not see the utility of this communication tool. Others may wish to take advantage of the Internet but lack the resources to connect to its potential.

The truth of the matter seems to lie somewhere between the techno-optimistic and the techno-pessimistic extremes: ICT's greatest strength is its ability to enhance ongoing efforts by social movements. According to survey respondents, ICTs are most effective when combined with conventional networking and activism. As a comment posted to an MAI newsgroup notes:

I doubt that anyone is suggesting the Net is wholly and solely responsible for the MAI being put on the backburner—temporarily. However, credit where it's due, few would doubt the major role the Net has played. Some believe it to be one of the initial sparks which has ignited international opposition, without which all the 'old-fashioned' footwork in the world would have no basis.¹¹⁴

Interviews with MAI organizers reinforce the complementary role enabled by the Internet in the trade and environment debate. As Global Trade Watch Field Director Mike Dolan notes,

Before we all got e-mail or even faxes . . . I cut my teeth in the streets and *barrios*, registering voters and mobilizing neighbourhoods. . . . Naturally I was sceptical about the utility of these new fancy communications techniques. Neither I, nor any other field organizer, could have foreseen the potential of the digital revolution to advance the people's agenda and make a real difference. . . . However, I believe that the Web and listservs are much less effective at the local level, where only traditional organising techniques can truly empower a community.¹¹⁵

As Dolan implies, the communicative modes facilitated by the Internet and the World Wide Web cannot replace the truly grassroots education and mobilization that must inform it. Sub-Comandante Marcos and his team of Internet collaborators would not have met with the success they did were it not for the Zapatista organization in Chiapas and across Mexico; the messenger is of little effect without a compelling, informed and articulate message. While Focus on the Global South's Bullard acknowledges the numerous benefits offered by the Internet, she does suggest that electronic communication has resulted in a new version of a "cosmopolitan individualism" that "separates us from what should be the inspiration for our efforts to create a fairer world—ordinary people and their daily struggles".¹¹⁶

Works in Progress

The rapid development of ICT capability combined with the changing needs of organizations and the importance of offering late-breaking developments on issues and events means that groups must revisit their Internet communication strategies regularly. During the course of this research the Web sites of several organizations

were redesigned according to the expressed needs of site visitors and the organizations themselves. This was the case for both corporations and non-profit organizations. Oxfam-Great Britain's Web site focuses on several areas, including the promotion of fair trade and improved corporate conduct as well as the dismantling of the arms trade. While Oxfam views the Web site as successful, the organization is nevertheless reviewing its current use as well as surveying what other groups are doing to maximize their use of Internet communications.¹¹⁷

In October 1998, Greenpeace International re-launched its Web site. Building on the NGO's success with Internet communications, the revamped version includes a new, highly interactive "Become a Cyberactivist" section. Here, visitors can join by simply clicking on the "act" button at the top of the page. The Cyberactivist section of the site refers visitors to the organization's Climate Change pages for upto-date information. It also enables users to send an e-mail message directly to the Executive Director of STATOIL encouraging the company to change their investments from oil and fossil fuel to renewable energy. As Greenpeace's Communications Development Manager Martin Baker notes, the interactive Web site is becoming an increasingly important element in the organization's repertoire—a fact echoed by many questionnaire respondents.

◆ Ahead of the Game–For Now

In fact, most companies appear slow to incorporate such tools [new telecommunication media] into their own communication strategy. When asked what steps they planned to take to match pressure group mastery of these channels, most respondents simply repeated their intention to expand into this area or admitted that their preparations were still in a preparatory stage (Lubbers, 1998).

As Web sites like McSpotlight demonstrate, it is possible for a group of committed volunteers, equipped with the appropriate technology, to monitor and critique corporations before a global audience. The on-line activism undertaken by environmental NGOs has not gone unnoticed by many of corporations on the receiving end of the criticism. For instance, the McSpotlight Web site claims that McDonald's corporation accessed it 1,700 times in its first week, suggesting the global corporation's interest in the activist site. RAFI's Web site analysis asserts that while Monsanto—the target of their anti-pesticide campaign—has not made any public announcements regarding the disputed technology, the company does appear to visit the RAFI site repeatedly. As RAFI notes:

The only exception to the silence: One person writing from an e-mail address belonging to a Monsanto subsidiary used RAFI's page to e-mail the USDA a lackluster defense of the Terminator titled "Ignore RAFI!". But the author conveniently ignored the fact that each of the one thousand letters sent from the page was edited and submitted by a concerned person or institution.

For the time being, the structure of cyberspace offers a playing field that is more equal and accessible than what is offered by conventional promotional and educational tools that are often prohibitively expensive, time consuming and labour intensive. Their immense budgets notwithstanding, one of the best responses that TNCs currently have to Web sites which monitor and critique their operations is to likewise develop an Internet presence.¹¹⁸ For instance, the McDonald's corporation built a Web site shortly after McSpotlight went live on the Internet.¹¹⁹ Thus

corporations in the critical spotlight enabled by the Internet are beginning to seek greater "air time" on the world's largest and fastest growing communications network.

8. CORPORATE WEB SITES: RESPONDING TO CRITICS

The Competition for Market "Share of Mind"

Greater attention will have to be paid to the Internet in the context of future debates on international trade and investment issues, particularly as a means to inform the public on the benefits of trade and investment liberalization (Stefano Bertasi, International Chamber of Commerce, 1998).¹²⁰

While civil society groups interested in trade and sustainable development issues have used the years since the Rio Earth Summit to globalize their networks and gather evidence of the role of some corporations in socio-environmental problems, TNCs have continued to promote trade liberalization through the organs of the OECD, the WTO and the ICC. In a nod to the increasingly vociferous demands of civil society organizations the world over, the WTO has started to open itself up to outsiders through the vehicle of the Internet. In its first MAI briefing for NGOs, Peter Pedersen of the WTO's External Relations Division outlined secretariat endeavours to inform outside groups of the proposed agreement through Web site dissemination.¹²¹ And during the Policing the Global Economy¹²² conference, WTO Director-General Renato Ruggiero recommended that participants visit the WTO's Web site for the latest developments regarding trade liberalization.

Although the Web sites of leading NGOs, such as Rainforest Action Network and Corporate Watch, demonstrate organizational savvy and strong backgrounds in trade and environment issues, corporate Web sites—if they refer to the environment or to sustainable development at all—often pale in comparison. The greater resources of transnational corporations notwithstanding, their Web sites often lack the sophistication and user-friendliness of sites such as WWF-International,¹²³ Greenpeace-International, Oxfam and Global Trade Watch.

Corporate supporters, however, are beginning to better understand the role of Internet communications in spreading the free trade message; for example, in the course of this research, several Web sites underwent overhauls designed to increase audience reach, improve currency of information and track user statistics. At a 1998 WBCSD meeting, a corporate representative talked about the Internet's role in the competition for "share of mind"¹²⁴ regarding business and the environment. Indeed, it seems that on-line civil society has led the way in harnessing information and communication technology to suit its purposes, whereas corporations and their associations are just awakening to its potential. For instance, when MAI negotiations were stalled in April 1998, the Secretary-General of the OECD admitted that opponents of the agreement, who had successfully manipulated the Internet, had caught the organization off guard and that the OECD would need to do a better job of selling the merits of the deal in the future.¹²⁵

Encouraging Environmentalism or Managing Global Perceptions?

Today, the communications revolution means companies conduct their affairs in conditions of much greater transparency. In purely pragmatic terms, the question is not what they are prepared to do, but what they can get away with. . . . Partly as a result of greater disclosure, environmental and safety standards are converging around the world. It follows that putting up a sub-standard plant in Romania or Bangladesh would bring only short-term gains, with a heavy long-term cost in public relations. . . . But as more thoughtful companies also concede, this whole trend has profound implications. Sections of public opinion across the world are hostile to globalization, and fearful of the giant companies which appear to be beyond the control of nation states. Faced with such pressures, companies will of course put renewed emphasis on their public relations. In more fundamental terms, though, there may not be much they can do about it (Jackson, 1998:15).

Since responsibility for a company's Internet presence falls within the purview of its public relations (PR) department, it is necessary to first explore the relationship between corporate PR and the environmental movement. A business promotes its products through advertising and its persona through public relations, with one tool feeding into the other. Advertising is arguably the most important motivator of consumer demand; global spending on advertising is widespread and growing. Moreover, the expansion of the sector is not abating: the **Human Development Report** (UNDP, 1998) indicates that more than US\$ 435 billion is spent on global advertising. Furthermore the industry has enjoyed quickest development in the South. For instance, in the Philippines, the growth rate was 39 per cent a year from 1987-92. According to the Consumer Unity and Trust Society of India, since trade liberalization there in 1991, advertising has increased 35 per cent yearly and changed the country's consumption patterns "irrevocably". The consumerism that lies at the heart of corporate advertising underlies many of our current environmental problems (Warnock, 1997).

While the link between advertising and the promotion of global consumerism has come increasingly under scrutiny, the near invisibility of corporate communications has kept its influence on public perception largely out of the spotlight. This is not to suggest that exposés of the PR industry do not exist; for instance, in her critique of the industry, Nelson (1989) claims that with the competent aid of a public relations firm, a powerful group of businesses was able to put together the UNCED agenda with little outside interference from either governments or non-governmental organizations. Indeed, there are several other important publications on the topic: Stauber and Rampton (1995), Greer and Bruno (1996), Tokar (1997), Beder (1997) and Ritcher (1998). These publications expose the role of some public relations agencies in helping business to counteract the public influence of social and environmental movements and organizations.

As the Web site of global public relations giant Burson-Marsteller¹²⁶ suggests, the objective of PR is to "manage public perceptions" with the end result of improving the bottom line.¹²⁷ Public relations firms involved in corporate imaging can choose from a plethora of strategies, including anti-publicity campaigns prior to the release of environmental research, industry-commissioned video news releases distributed to resource-strapped television stations¹²⁸, industry-supported "citizen" campaigns, information-gathering services regarding environmental campaigns, and

partnerships with environmental groups and corporate front groups (Stauber and Rampton, 1995).

The "Wise-Use" movement, initiated by The Center for the Defense of Free Enterprise in the United States, exemplifies attempts to influence the public and discredit the claims of environmental NGOs. With the assistance of public relations firms, campaigns have been undertaken to incite fears of unemployment related to resource regulation. As well, organizations such as the Global Climate Coalition have been created using names that imply sustainability but which in fact lobby against binding targets for greenhouse gas emissions, claiming that more scientific research is required before taking serious action on global warming. The GCC's members include the world's largest oil and mining companies, as well as automobile makers. This public relations-assisted lobbying is particularly ominous in the light of Greenpeace research demonstrating that nations with strong automobile, oil and coal interests often take positions reflective of industry in international negotiations (Warnock, 1997:16).

Objectives and Content

One of the major strengths of pressure groups—in fact the levelling factor in their confrontation with powerful companies—is the ability to exploit the instruments of the telecommunication revolution. Their agile use of global tools such as the Internet reduces the advantage that corporate budgets once provided (Verhille cited in Lubbers, 1998).

Corporate Web sites are used to not only advertise products and to sell directly to the public; they are used increasingly to cultivate a persona of social and environmental responsibility. The use of Web sites as promotional vehicles for perspectives on sustainable development is in its infancy, and while social justice and environmental NGOs are often ahead of the corporations whose activities they criticize, global businesses are starting to direct their marketing resources toward developing an effective Web presence of their own. According to Kenny Bruno of Greenpeace International, however, there does not seem to be much difference between the information global business conveys in its brochures and on the Internet. The first part of the corporate questionnaire used in this study asked representatives about the inclusion of community and environmental content on the site. As respondents note, it is crucial that sites target not only shareholders but also stakeholders beyond the investment community. Indeed, the content of their Web sites implies that corporations chiefly regard the Internet as a new tool in the cultivation of their image as responsible citizens. There is one emerging difference, however, and this relates to the new corporate strategy of openness on the Internet—a development particularly embodied in just one of the corporate Web sites in the survey.

For the purposes of this report, a selection of major corporate players from across sectors was sent an e-mail questionnaire. Questionnaires were forwarded to TNC operations across Africa, Asia and Latin America and the South Pacific. Aside from their stature as transnational corporations, targeted businesses share a formal commitment to sustainable development as demonstrated by their membership in one or more voluntary codes of conduct, such as Responsible Care or CERES. Moreover, each corporation approached is a member of the WBCSD, an organization that exercises a measure of discrimination in its selection process; membership is by invitation only and tobacco companies are not invited to join.

The assumption drawn by WBCSD membership is that these companies have officially dedicated resources to sustainable development. Although the scope of this financial commitment is not measured in this study, it does suggest that the companies examined are at least starting at the same place; in other words, they recognize the constellation of social and environmental repercussions that their critics increasingly associate with corporate activity. In addition to surveying the Web sites of questionnaire respondents, other corporate sites were visited.

Although many corporations continue to use their Web sites simply to display information,¹²⁹ questionnaire feedback indicates a flurry of activity during the last year as some global companies re-evaluated their Web sites. As a result, home pages (such as that which fronts the site of pharmaceutical giant Rhône-Poulenc¹³⁰) contain internal links not only to information on finances, human resources, and research and innovation, but also to a section dedicated to environmental concerns. Annamarie Murray of Corporate Communications for South Africa-based energy supplier Eskom states: "the social commitment section was included based on company priorities and frequently asked questions from our customers and stakeholders".¹³¹ Anglo-Dutch Unilever's Stephen Milton describes the impact user research can have on site design:

The environment section of .com [Web site] was included as Unilever's commitment to sustainability as a key corporate belief, and we feel we have a good story to tell. To this end the Internet is a very good vehicle for such messages as many environmentally aware individuals and groups either access the Internet or are actively involved in creating their own sites.¹³²

His statement also reveals the importance of corporate Web sites as a space to respond to critics. Unilever has been criticized on NGO Web sites for its positive view of genetic engineering.

While many business Web sites tend to deal with social and environmental issues directly related to their corporate objectives, business associations and lobby organizations working on their behalf promote the larger goal of greater trade liberalization. Here again Web sites are becoming more and more important. Online since 1995, the ICC targets businesses and individuals involved in international trade. According to the Director of Communications at the Parisbased ICC, their Web site aims to promote the market economy system and trade liberalization.¹³³ The WBCSD takes its Internet presence seriously; in its **Annual Review 1997**, the organization notes that the site is used to "spread the WBCSD's views and thinking, particularly to universities and business schools around the world" (1998:14).

◆ Third-, Second- and First-Level Sites

For the purposes of this exploration, corporate Web sites were divided into third-, second- and first-level sites according to the content and positioning of social and environmental information within the site, as well as the interactivity enabled by its design. In order to ascertain the willingness of companies to open up communication channels and respond to critics, Web sites were checked using the following questions as a guide.¹³⁴

• Is there a health, safety and environment report and/or sustainability section online?

- Does the FAQ (frequently asked questions) section include sensitive topics (i.e., environment and human rights)?
- Do feedback mechanisms link visitors only to general information e-mail address?
- Is contact information provided for specific departments and officers?
- Is there a moderated debating room or chat room for company/visitor and visitor/visitor communication?
- Does the site post critical comments?
- Is the company willing to share Web site information with outsiders?
- Are requests for off-line information also facilitated (annual reports, etc.)?
- Is the site accessible to lower-end users and is it easily navigable?
- Is the language accessible and is site content available in at least one other language other than English?

Third-level sites

A site may be characterized as third-level or reticent because it provides minimal information regarding its socio-environmental impacts and activities. Usage patterns of Web sites indicate that important information—or links directly to it—should appear on the front or home page of a Web site so that users may access it readily. A third-level site may also assume a defensive posture about the information it does post, indicated by the tone of the content related to controversial issues. Third-level Web sites do not take advantage of the interactivity enabled by e-mail technology. These sites limit communication with stakeholders to more conventional media such as telephone and facsimile, which are both time-consuming and expensive for site visitors.

At the Web site of WBCSD member Rio Tinto, one of the world's largest mining firms, visitors will find neither environment nor social responsibility placed clearly on the home page—an absence which forces visitors to search throughout the site to find information on the company's controversial investment in Freeport's Grasberg mine in Indonesia. The Rio Tinto site offers neither a facsimile number nor an e-mail address.

Second-level sites

Such hesitancy to deal with controversial issues and the failure to exploit the interactive potential of Web sites, however, is fast becoming outdated. Indeed, most of the corporations surveyed have second-level sites, and as such they move beyond posting only rudimentary and overtly defensive information regarding their operations. This development reflects the shift toward greater corporate disclosure in the late 1990s. This period has also witnessed an increasing number of companies now producing environmental reports—out of concern for their socio-environmental impacts but arguably also out of fear of regulatory measures to ensure accountability.¹³⁵ Second-level sites often post health, safety and environment reports, as well as other information such as case studies in environmental management.

Some second-level Web sites are quite comprehensive in their coverage of sustainable development topics. Respondents were asked to compare the relative popularity of environmental/sustainable development/social responsibility sections within their corporation's site. According to Stephen Boyle, Information

Development Executive of Group Public Affairs, the Glaxo Wellcome "World" link on the parent company's home page is the third most popular section of the site, just after the "News" section.¹³⁶ The "World" section contains general information about the company's global operations and community involvement. The company's health, safety and environment report is available and access indicates that it is among the more popular sections of the site. A hyperlink to the Web site of the WBCSD is also found on the site.

A second-level site also displays a willingness to make available contact information, usually through an e-mail function, to corporate departments and sometimes even specific individuals. This type of Web site suggests that a company is prepared to communicate directly with stakeholders. Unilever's Web site¹³⁷ exemplifies the key characteristics of second-level sites: its environmental report is available; cooperative efforts with conservation groups are highlighted, thereby setting an example to other corporations; and visitor feedback is encouraged by enabling users to send e-mail directly and instantly to the corporation.

Monsanto, based in St. Louis, Missouri, is criticized on many environmental NGO Web sites. Perhaps in an attempt to suggest that it is open to criticism, the site's content refers to some—although not all—of its controversial activities. The Internet version of the firm's 1997 **Sustainable Development Report** contains a special section on one of its products, Roundup Ready Soybeans.¹³⁸ These genetically modified beans are engineered to tolerate the spraying of Roundup for weed control while the beans are growing. With regard to the contentious product, the Web site includes the reflections of a Friends of the Earth Germany representative who objects to the way that Monsanto suggested its product reduces starvation and protects the environment in developing countries.

While this is certainly an improvement over third-level sites (which generally post only policy statements), the allusion to criticism requires careful interpretation. In the report posted on the Web site, the individuals offering critical reviews do not, in fact, denounce the product; rather, by dissecting each statement, we can see that ultimately the comments posted are in favour of Monsanto. Thus the carefully selected comments suggest that while the company's promotional approach is sometimes questionable, its products are ultimately beneficial—particularly to developing countries. Another commentator quoted on the company Web site claims that the controversy over the promotion of the genetically modified soybeans has more to do with a disregard for local culture than for scientifically based reasons. This underscores the role of critical evaluation of Web site content whether the site belongs to a corporation or an NGO.

Given the negative public attention Monsanto attracts for some of its biotechnology practices, I noted to Corporate Public Affairs Manager Dan Verakis that the Web site had relatively few questions and answers regarding the company's position on controversial issues. He agreed with this assessment and stated: "We're working on this project diligently because we're very keen to provide the outside world with as much data, facts and information as possible to allow them to make educated decisions about our products".¹³⁹

First-level sites

It is interesting to note, albeit unsurprising, that global businesses that have borne the greatest share of public scrutiny in recent years post relatively more comprehensive coverage of environmental and social responsibility issues on their Web sites. First-level sites are even more open in approach than are second-level sites. Design allows for the display of critical feedback through forums or bulletin boards where visitors can post messages that can be viewed by other site users. This type of Web site expands a company's Internet presence beyond the limitations of traditional communications. Indeed, with full-colour brochures, television and print advertisements, for instance, a company retains complete control over content. However, first-level sites relinquish a measure of this control by providing space for external critics to make their views known to the company and to other site visitors. The Shell World Web site is the only site surveyed which merits the first-level rank.

The Shell World site contains many pages of information on environmental and social responsibility and has an interactive format, allowing visitors to post comments that are critical of the company's international operations. Certainly, when compared with many other corporate sites, Shell World is a leader in its willingness not only to include material that refers to controversies but to also post visitor comments critical of its operations and policies (see Appendix 5). One of the corporation's home page links takes visitors directly to the "Sensitive Subjects" section. This section is then subdivided into three areas: "People", "Planet" and "Community." The "Planet" pages, for instance, cover a variety of erstwhile taboo topics such as climate change, spill control, managing the environment, Nigeria, facility abandonment and environmental assessment.

The site's relative openness does not end with the "Sensitive Subjects" section; the "Making Connections" area is the site's most interactive, structured so that users have a choice of venues through which they can express their concerns directly to the company. If visitors send e-mail through the "Tell Shell" function, they can expect a reply within 48 hours. For those who prefer to post their comments for other users to read, and even respond to, there is the "Speakers' Corner" forum. Posted comments range from mild reproaches to outright condemnation, with visitor-initiated discussion threads.¹⁴⁰ While most of the debate material is critical of Shell, the firm's claim that postings are both moderated and uncensored is somewhat misleading. For instance, at the bottom of the "Speakers' Corner", the "no-go" caveat states that "persistently inaccurate . . . or slanderous or malicious" content will be removed as well as graphics and HyperText links.¹⁴¹

Hyperlinks that instantly connect to the Web sites of other organizations can be a useful service for visitors in search of additional information. However, they may also be used to create false impressions of, or to exaggerate relationships with, other organizations. Although WBCSD corporate members are made aware of the WBCSD's Web site, the communications department notes that many other visitors arrive there via links from sites including the WTO, the United Nations, other business bodies and academic sites—a fact which Holmes notes increases the Council's prestige.¹⁴²

The Shell World site is also unusual in that it also links to the Web sites of NGOs highly critical of the company. One such link takes site visitors to Human Rights Watch on-line;¹⁴³ posted here are articles that claim that Shell, Chevron and Mobil

share culpability for human rights abuses in Nigeria. Kenny Bruno, however, is sceptical of the relationships inferred by such linkages: "Links or recommendations of Web sites from Monsanto to Friends of the Earth (FoE) give the wrong impression that both sides are interested in open debate and are cooperating".¹⁴⁴

Most corporate sites, however, link only to business association such as WBCSD or standards organizations such as Responsible Care, CERES or the International Organization for Standardization (ISO). Some corporations cultivate an on-line presence through their foundation, which may also have a Web site. Visitors can link from the corporate site to the foundation's site easily, thereby underscoring the relationship between the corporate and philanthropic entities. The Novartis Foundation for Sustainable Development site, for instance, contains policy statements regarding the company's commitment to good corporate citizenship as well as documents that visitors can download. The statement below, taken from the Web site, exemplifies how connections may be drawn between the two entities:

Corporations that act responsibly in a number of obvious areas reduce the potential for conflict between a socially and economically viable development policy and the impact of a corporation's involvement in a developing country. In this context there are the minimum requirements for good business practice. . . . A multinational corporation which operates in different legal and social frameworks, and which strives for uniform ethical standards, is well advised to develop corporate policies for sensitive activities in the developing world—whether in marketing, environmental protection or other areas. Not everything legal is morally acceptable.¹⁴⁵

As the excerpt above suggests, the Web provides ample space for posting positive statements regarding the social role of large corporations; indeed, a Novartis representative encourages other corporations when designing their Web sites to ensure that they have sections or separate sites which are dedicated to addressing different audiences such as non-governmental organizations and government officials.¹⁴⁶

Advantages Over Traditional Media

Editorial control

Questionnaire respondents most frequently cite the increased editorial control enabled by the Internet as the most important advantage offered by Web sites. The removal of outside interpretation through direct site-to-visitor and visitor-to-site communication was a benefit articulated by many respondents. As Unilever's Stephen Milton notes: "In relation to promoting good corporate citizenship and sustainable development, the Internet provides Unilever with a medium to communicate directly to stakeholders, without third party editorial control".¹⁴⁷

Other survey respondents noted that the use of interactive sites combining e-mail technology with Web site technology can dramatically increase audience reach. Shell International's Group Internet Editor, Simon May, not only echoes the appeal of greater editorial control but he also stresses that the Internet enables a company to cultivate a larger market for its environmental messages. Simon May lists the site's key advantages over traditional media:

The ability to get our message in front of people without having to rely on journalists interpreting what we say; the ability to reach a new audience who I believe wouldn't have contacted Shell otherwise; the ability to have one-to-one dialogue with individuals or groups.¹⁴⁸

Luis Brandão, Communications Coordinator at Aracruz Celulose, echoes the importance of this more direct approach: "We believe that compared to more traditional media, our Web site grants us access to a much broader audience, either for providing information on our policies and operations or for communicating the Company's position on sensitive issues".¹⁴⁹

According to questionnaire participants, the number of visitors to their Web sites is increasing significantly.¹⁵⁰ The WBCSD notes that during 1998, corporate members noticeably increased their use of the site. The Council's site averages approximately 1,500 visitors monthly. The International Chamber of Commerce recorded 14,000 visitors in May 1998 alone. While most visitors appear to originate in North America, the organization receives an increasing number of visitors from Asia. Although most people still contact the company by letter and telephone, Aracruz Celulose now receives about 35 e-mails per week via the Web site. The Shell World site receives approximately 300 e-mails per week.

As with the NGOs surveyed, corporate respondents also stated that the comparative inexpense of the Internet is another important advantage over conventional media tools. Its cost-effectiveness means that amendments and improvements can be made quickly and without the significant production and labour expenses typically associated with traditional modes of communication.

Role in Future Communications Strategy

Survey respondents agree that their Web sites are becoming an increasingly vital element in their communications repertoire. While acknowledging the sometimes "burdensome" demands of site visitors for company information, corporate representatives raise few disadvantages of the medium; instead, they note that the interactivity and editorial control offered by a Web site far outweighs its constraints. According to respondents, this communication tool has become indispensable for promoting a company's role in environmental protection. For example, according to Dan Verakis, Corporate Public Affairs Manager at Monsanto headquarters: "Sustainability is very important to Monsanto. It's more than just a concept. It's a business sector/model for us. As the information age continues to develop and we continue to become a digital society, I think we'll increasingly rely on our Web site to provide a clear picture of who we are as a company".¹⁵¹ And Hellene Karamagi, of the Novartis Foundation for Sustainable Development, states:

We hope that with our many Web visitors from the commercial and educational sectors, people will gradually realise that large corporations can and do play a role in promoting and supporting sustainable development worldwide. The undisputed growth of the Internet will undoubtedly make it the main communication tool for the Foundation.¹⁵²

According to Simon May, the Shell World Web site "will become a much more integral part of all Shell's communications". After conducting focus groups and reviewing feedback from site visitors, Shell launched its revamped site at the end of 1998. May states that the new site not only eschews the third- and second-level

"brochure approach" to Internet sites, but it will "take corporate sites into the next century". The site's uncensored, open-ended forums remain but its interactivity is enhanced. In an attempt to further promote the "open corporate approach" on-line, May states that the company plans to add information "which other corporations refuse to put into the on-line world". May is proud of Shell's relatively open approach; certainly, as this study suggests, it places the company at the vanguard of Internet transparency among global corporations.¹⁵³

Through the main Shell World site as well as its satellite Web sites, Shell has sought a lead position in the use of Web sites to promote its socio-environmental policies and activities. It will be interesting to see whether the upgraded site is willing to open up further. May would like the site to take advantage of the latest developments in the medium, such as Web TV. The use of such high-end technology suggests that while the company maintains operations all over the world and is particularly criticized for its operations in developing countries, it still regards its target communications market as the citizens and organizations of wealthier regions.

Bruno cautions that "there is a danger that clever Web sites could more efficiently give the impression of openness and concern for democracy".¹⁵⁴ Still, the Shell World Web site remains an important one to watch as developments in Internet corporate communications unfold. Its coverage of what Shell describes as sensitive subjects, including environmental and human rights, is considerably more open than the fare currently offered by many global corporations with a Web presence. Shell's willingness to expose itself to criticism on its own site, however, is not without its risks.

This is a nascent period in the manipulation of interactive Web sites to promote corporate environmentalism and social responsibility. Shell's response to the Brent Spar incident and ongoing difficulties in Nigeria are attempts to become more open with the public—a policy the company seems determined to implement with its Internet presence. It is worth noting that **The Shell Report**—**1998**¹⁵⁵ includes mostly favourable feedback from a variety of people. A perhaps telling inclusion is a reference to compliments paid the company by Saatchi, one of today's most important advertising corporations. The opinions of Shell detractors, however, are not included. Time will tell how far the company is willing to take its newly found policy of greater transparency. Critics of the transnational ask when the company will be prepared to extend this openness beyond the relatively controlled parameters of the Shell World Web site and into the broader public domain of the off-line public.

◆ Internet Surveillance Services

The results of the NGO questionnaire and Web site survey point to the effective harnessing of the Internet to spotlight the socio-environmental impacts of global business. Questionnaire respondents provide ample evidence that virtual dissemination and networking can indeed translate into action and results in the material world. This successful manipulation of ICT to assist corporate campaigns has left TNCs and their communications teams in the defensive position regarding the on-line portrayal of their activities. Corporations at the forefront of Internet use are working hard to bridge the gaps between their sites and those of their critics.

Corporations' on-line response, however, is not limited to the development of their own Web sites. The results of the corporate questionnaire and Web site survey indicate that while global business has been slow to understand and exploit the communication potential of the Internet vis-à-vis controversial topics, some corporations are beginning to stake a greater claim through not only their own Web presence but also through other Internet-related services. Thus NGOs that currently use the Internet to effect should not develop a false sense of security. With the rapid development of information technology, global business is turning to a new third-party intervention in their communication strategies: Internet surveillance and clipping services.

In early 1998, the manager of the Public Citizen's Global Trade Watch mailing list received a "suspicious" subscription request. The list owner tracked the message back to an on-line service called e:Watch.¹⁵⁶ US-based e:Watch operates as an electronic clipping service, scanning the Internet for its corporate subscribers. For example, e:Watch's Web site service can be directed to monitor selected Web sites for activist activity, notifications of government investigations and legal proceedings related to particular companies or organizations. Shell employs the services of e:Watch, as well as those of UK-based Infonic whose Web site claims to serve some of the "world's most recognized corporations with this sensitive and confidential task".¹⁵⁷

9. CONCLUSIONS AND CAVEATS

The role of environmental communications from corporate polluters is to manage public perceptions, to convince key members of the public that they are making things better. What they say via their PR is at odds with what they are lobbying for, and doing, in the real world.¹⁵⁸

This investigation into the harnessing of the Internet to both promote and critique the role of global business in sustainable development recommends a careful embrace of the technology. While the benefits of Internet communication clearly compare favourably with more conventional media, there are several caveats to its promotion. Chief among these provisos is the ongoing need to place special emphasis on its development in countries of the South and economically disadvantaged areas of the North. In the context of this research paper, it is suggested that policy makers pay particular attention to civil society organizations whose concerns are represented neither by governments nor by corporate interests.

John Stauber, Director of the Center for Media and Democracy, believes that the importance of Web sites to both promote and critique the role of global business in social responsibility will certainly grow. Shell International is clearly ahead of other companies in its use of Internet communications both to promote its image as a good corporate citizen and to counteract detractors. How far behind are other corporations which similarly face criticism? Martin Baker, Communications Development Manager for Greenpeace International, has noticed "how seriously many of these entities are now taking their Internet presences".¹⁵⁹ We may also ask how long it will take until global business—with its vast financial resources—eclipses NGOs in the battle for share of mind in the trade and environment debate.

It would be irresponsible to advocate the embrace of information technologies without also acknowledging that the Internet presents its own challenges regarding

freedom of speech and corporate monopoly. Without doubt, state control of access to all communications media—let alone new media technologies—remains a critical issue. In **Communications and Knowledge-Based Technologies for Sustainable Human Development**,¹⁶⁰ D'Orville (1996) points out that China requires all Internet providers and users to register with the government. In Viet Nam, subscribers to NetNam, the state-owned Internet service provider, are offered only e-mail services and not World Wide Web access. Censorship issues are not limited to developing nations; in North America and Europe the question of pornographic materials, for instance, has led to increasingly vociferous demands for control of Internet content and dissemination.

The question of censorship extends beyond the realm of governments, however; as civil society groups increasingly exploit the Internet's potential as corporate watchdog, global business is fighting back. The recent case involving one of Europe's leading environmental magazines exemplifies the "chill effect" powerful corporations can have on public discourse. The September/October 1998 edition of the UK-based magazine, **The Ecologist**, was "pulped", or destroyed, by its long-term printer, Penwells of Saltash, Cornwall. The issue is critical of the chemicals giant for its links to the Round-Up herbicide, Agent Orange, the Bovine Growth Hormone and the so-called Terminator seed.¹⁶¹

According to Penwells, Monsanto did not make any threats; however, as co-editor Zac Goldsmith states, if Monsanto did not threaten the printer, the implications are ominous. Columnists Mokhiber and Weissman contend that "this company, through reputation alone, has managed to bring about what is, as far as we are concerned, *de facto* censorship".¹⁶² Eventually another printer was found to run 16,000 copies although a new problem has arisen: two key British retailers would not carry the issue on their newsstands.

Although The Ecologist was able to use its own Web site to publicize its encounter with *de facto* censorship, it would be unwise to overstate the utility of the Web site in this situation since it appears that Web sites themselves are now coming under attack. Dissatisfied with simply responding to Internet criticism through their own sites and through surveillance services, corporations are moving toward Web site censorship. In April 1998, lawyers for the British multinational Biwater Plc. demanded that two Internet service providers (ISPs) remove an article and a related press release within seven days or face a libel suit: the news article was posted on South-Africa based SangoNet and a press release by the South African Municipal Workers' Union appeared on GreenNet. The offending material related to SAMWU's battle against water privatization.¹⁶³ The union challenged the British firm's bid for a 30-year contract with Nelspruit Council. Lawyers for the company noted particular concern with the posting of an old article that originally appeared in the South African Mail and Guardian newspaper. The article refers to the company's involvement in links between UK arms sales and the British Government aid.¹⁶⁴ Interestingly, there were no threats of legal action before the article was published on the Internet. Pending consultation with their lawyers, both SangoNet and GreenNet removed the article from the Internet.

In response to what the Institute for Global Communications describes as "censorship by intimidation", an Internet counter-campaign challenging Biwater's legal action soon developed. The offending article and NGO statements against the multinational's attempt to censor on-line debate now appear on many networks around the world. For instance, at the SAMWU anti-privatization Web page, visitors are provided with a sample protest letter and direct e-mail connections to

the BBC in England, Biwater South Africa and Kader Asmal, the South African Minister of Water Affairs. While environmental NGOs and their allies have been able to widely publicize Biwater's threats and turn the situation into a campaign for free speech on the Internet, the incident nevertheless underscores the urgency of putting into place safeguards to protect one of the last remaining venues for relatively unconstrained public discourse. It is becoming clearer that while reliance on defensive strategies such as mirroring controversial content on other Web sites may be effective in the short term, they cannot, in the long term, substitute for legislated protection.

Protecting the Global Digital Commons

The democratic use of the medium will reflect the emancipation of the civil society that uses it and the struggles to preserve and expand that emancipation. This underlines that a democratic cyberspace can only emerge from a democratic material space (Fortier, 1996).

As corporations grow to understand the effective role played by the Internet in the campaigns of their critics, it is unlikely that business interests will want to exercise control over both access and content. Audrie Krause, Executive Director of NetAction, warns that "as corporations gain more control over the Internet, it may be less likely that the technology will offer opportunities along [corporate social responsibility] lines".¹⁶⁵ And Joshua Karliner, Executive Director of the Transnational Resource and Action Center, echoes this concern: "the growing corporate domination of the Internet, and the potential for the Internet to become just one more mainstream media outlet pose the largest threat to democratic communication through this medium".¹⁶⁶

While the NGO survey amply demonstrates that the Internet enhances and facilitates an alternative globalization of communication around issues of corporate responsibility, the preponderance of North American- and European-based organizations in the survey sample reflects an imbalance regarding access to the technology. It does appear, however, that serious efforts are being made to address the problem. As we have seen, the work of the APC and its affiliates provides Internet space for Southern NGOs. And Internet connectivity in Africa has grown quickly since the end of 1996, when just 16 nations were on-line. As of October 1998, more than 75 per cent of the continent's 53 capitals have access (Jensen, 1998). Certainly there remain crucial limitations; while there are almost one million African Internet users, most reside in South Africa. This figure represents about 1 per cent of the world's total e-mail accounts, and while it reflects a significant improvement in a short span of time, it does point to the still yawning divide between the technological haves and have-nots. Nevertheless, as Robert Pollard notes:

There are those who dwell on limitations resulting from lesser access by those in developing countries and the poor, and while it is important not to be insensitive to these concerns, these limitations are rapidly decreasing, and in my opinion are much more than offset by the much greater participation in the information environment of organizations from developing counties that have even a modest amount of computer resources and connectivity¹⁶⁷

This preliminary exploration of information technologies and corporate responsibility suggests that the use of Web sites, and other forms of electronic

communication, plays a crucial role in monitoring corporations, disseminating research findings, exchanging information and building alliances. As a powerful complement to more conventional forms of communication, agitation and networking, the effectiveness of the Internet is clear. In the post-UNCED period, as NGOs struggle to keep environmental and social issues on the trade and development agenda, "this free flow of information needs to be protected if the capacity of civil society to think and act independently—and therefore provide a balance of power—is to be fostered" (Murphy and Bendell, 1997:44). Web sites and e-mail have become indispensable tools at the fingertips of environmental and social justice activists who may otherwise have few possible courses of action. In the current era of unprecedented pressure to further liberate trade from environmental and social restrictions, information technologies help to renew the drive to hold corporations to account in their activities around the globe.

APPENDIX 1: NOTES ON NGO RESEARCH

In an attempt to obtain diverse perspectives, questionnaires were distributed electronically to organizations from North and South and representing myriad interests including youth, labour and gender. In all, questionnaires were distributed to 18 organizations from around the world. Just four questionnaires were not returned, indicating a significant response rate of 78 per cent. Additionally, other NGOs were approached on issues beyond those broached in the survey. As feedback suggests, many organizations are overwhelmed with e-mail correspondence and other professional commitments such as conferences and workshops. Some NGOs stated that they would like to participate but asked if they could do so at a later date. Although several organizations were not able to participate, their Web sites were still surveyed for content. These organizations included Senegal-based ENDA-TM, RAFI in Canada, WEDO in the United States, and Development Alternatives in India. In addition to the questionnaires sent to targeted environmental NGOs, questionnaires were also sent to NGOs working specifically in the areas of Internet activism and media analysis.

Certainly, a broader study would be useful; however, the dynamic nature of Internet communications means that Web sites change rapidly and monitoring them for comparative purposes would require resources beyond the scope of this particular endeavour.

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- Lori Wallach, Director, Public Citizen's Global Trade Watch
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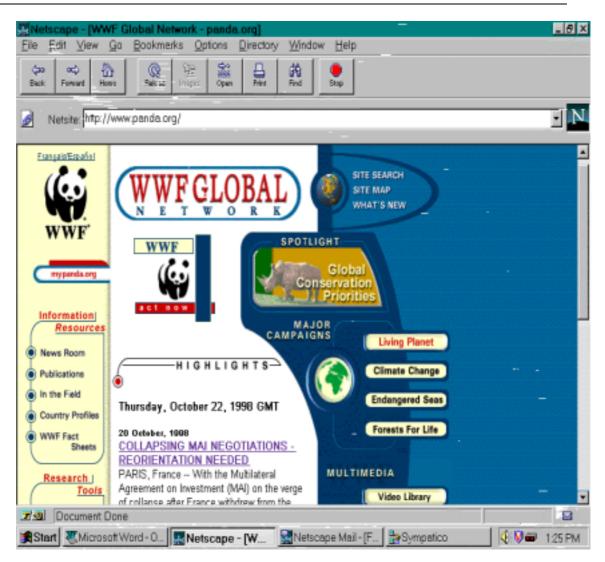
APPENDIX 2: NOTES ON CORPORATE RESEARCH

The response rate for the corporate questionnaire was 67 per cent, with only six out of 18 organizations declining to respond. The high response rate implies a general willingness to share information about their experiences with Internet communication as a tool to promote their initiatives in the realm of sustainable development. The significant response may also result from basing enquiries on the review of specific Web sites, thereby indicating to recipients that an attempt had been made to customize each questionnaire. Indeed, as one corporate public affairs manager noted, with so many daily requests for information, he cannot respond to everyone and therefore tends to respond to queries that suggest that the visitor has first sought answers by researching the Web site. Finally, one cannot discount the ease, inexpense and relative informality of response enabled by e-mail technology.

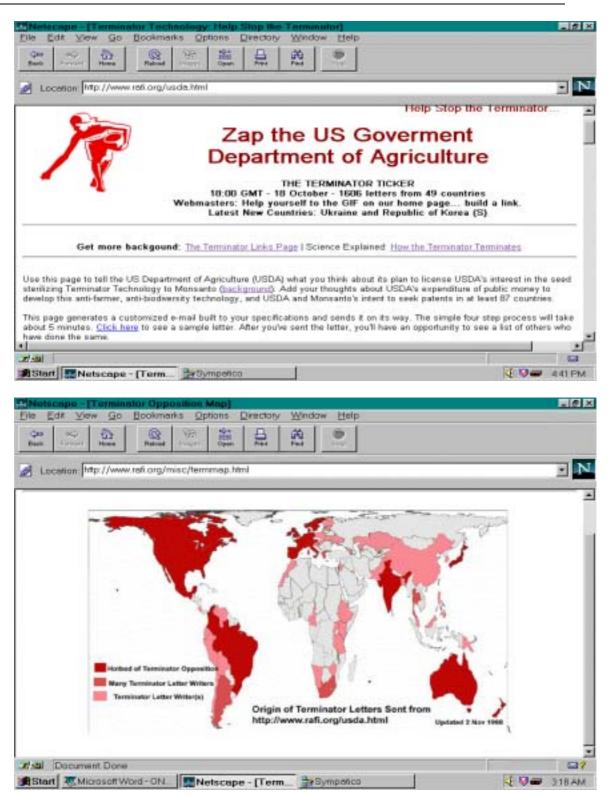
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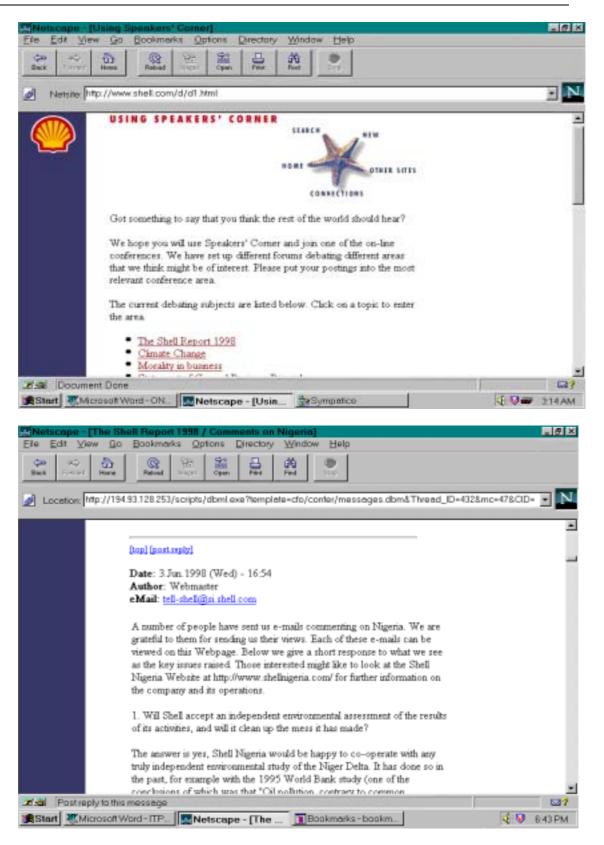
APPENDIX 3: SAMPLE HOME PAGE FROM WWF GLOBAL NETWORK



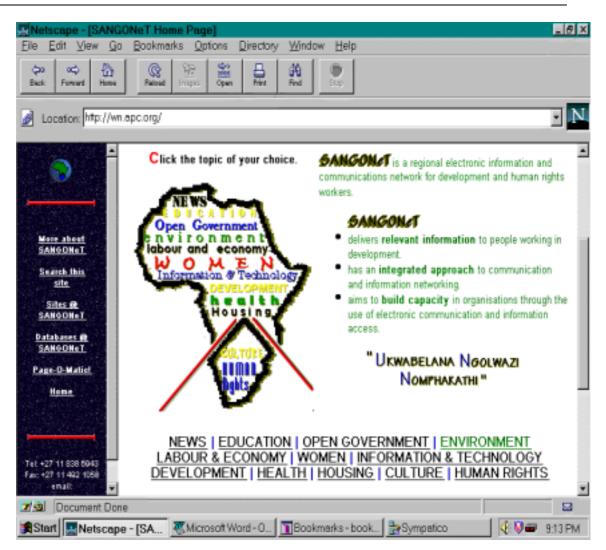
APPENDIX 4: SAMPLE ACTION ALERT FROM RAFI



APPENDIX 5: SHELL WORLD SITE SPEAKERS' CORNER



APPENDIX 6: SANGONET HOME PAGE



APPENDIX 7: ENVIRONMENTAL SUSTAINABILITY OF ICTs AND ECO-EFFECTIVENESS

Although it is imperative that digital technologies are accessible the world over and remain relatively unconstrained regarding content, the proliferation of ICTs inevitably taxes the environment. As Hamelink (1997) asks, if ICTs increase economic productivity, is there a corresponding rise in consumption levels? Indeed, while access to the "information superhighway" provides an alternative media outlet for diverse opinions and expression, it also has an undeniably commercial character. As a result, awareness of the role it plays in promoting global consumerism must accompany its promotion.

As nations industrialize and their citizens clamour for the information technologies so prevalent in the affluent North, the required infrastructure and resource depletion takes an undeniable toll on the environment. For instance, computers, printers and photocopiers all emit carbon dioxide. As Malley (1996) observes, the energy needed to manufacture just one personal computer is nearly equivalent to the average annual consumption of electricity in a mid-European household. The production of a two-kilogram laptop computer requires a resource input of 20,000 kilograms (see Hamelink, 1997). Moreover, the inputs used in the production of computers eventually return to the environment once the equipment breaks down or becomes outdated. With batteries and screens containing cadmium and lead, the toxic waste generated by computers must be addressed in the global promotion ICTs (Malley, 1996).

McDonough and Braungart (1998) use the example of computer hardware to illustrate an alternative to the eco-efficiency model employed by global business.¹⁶⁸ In the eco-efficiency approach, which emphasizes the three Rs—reduce, reuse, and recycle—computer cases would, ideally, be recycled into another product such as flowerpots or sound barriers. When products are reconfigured into lower-grade items, the designers refer to this as "downcycling". The architect and industrial designer call for an approach to design which accounts for recycling from the very beginning. "Upcycling" means that materials are returned to the industrial system not in a degraded form but rather as the same or an improved product. Through the breaking down of products into biological nutrients and technical nutrients, they suggest that biological nutrients in the material of products be designed to go back into the organic cycle through biodegradation. Technical nutrients, on the other hand, would have to be designed so that they could return to the technical cycle.

Another important aspect of the design approach offered by McDonough and Braungart is that customers would buy the service of a product, and when they were ready to change or upgrade the product they would return it to the manufacturer, who would then break it down and use the materials to construct new products. In this "eco-effective" scenario, high-quality computer cases would circulate as high quality computer cases. This revolutionary approach requires further attention not only in the context of the manufacture of computer hardware, but also all products of industrial design.

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ENDNOTES

¹ According to Kristof, this early example ended with England defaulting and the ruin of the Florentine banks.

² Giddens suggests that globalization is neither simply an economic notion nor a development of large-scale global institutions; rather, the term describes the growing impact of actions taking place on the other side of the world on individuals—in other words, "action at a distance". See Giddens (1997).

³ See the 1999 PriceWaterhouseCoopers **World Economic Forum Global CEO Survey**. In July 1998, Price Waterhouse merged with Coopers Lybrand to form PriceWaterhouseCoopers.

⁴ The United Nations Conference on Trade and Development (UNCTAD) was set up in 1964 as a permanent intergovernmental body. It is the key UN body in the field of trade and development. The organization's Web site URL is http://www.unctad.org.

⁵ ICTs include those which handle information and enable different methods of communication among human actors, humans and electronic systems, and among electronic systems. ICTs can be divided into capturing technologies, storage technologies, processing technologies, display technologies and communication technologies. Examples of communication technologies include electronic bulletin boards, modems, local area networks (LANs), wide area networks (WANs, like the Internet), and transmission media such as fibre optics, facsimile machines and cellular phones. See Hamelink (1997).

⁶ UNRISD is located in Geneva, Switzerland. Its Web site URL is http://www.unrisd.org.

⁷ The final workshop report—**Business Responsibility for Environmental Protection in Developing Countries International Workshop**—was published May 1998 by UNRISD in Geneva.

⁸ For the purposes of this paper, *civil society* refers to groups beyond the household which are independent of the government and the corporate sector; civil society is comprised of non-governmental organizations (NGOs). An NGO is defined as an organization which belongs to neither the state nor political parties. NGOs include trade unions, professional associations, community groups etc. See Riva Krut (1997).

⁹ Former Prime Minister of Norway, Gro Harlem Brundtland is now head of the World Health Organization in Geneva.

¹⁰ "Cultural globalization" is also used increasingly. See recent draft reservations by Canada and France regarding the proposed Multilateral Agreement on Investment.

¹¹ "Transnational corporations" (TNCs) were defined in the 1970s by the United Nations Economic and Social Council (ECOSOC) as those enterprises that control assets such as mines, factories, sales offices and similar entities in two or more countries Jenkins (1987). ¹² The American stock market consists of the NYSE, AMEX and the NASDAQ.

¹³ Moreover, just 2 per cent of the total amount is due to cross-border purchases of goods and services which require foreign exchange (Clarke, 1996). According to the Global Policy Forum, "another US\$50 trillion per year (about 17 per cent) of foreign exchange trading takes place with futures, options and derivatives to hedge against future exchange rate fluctuations. Exchange rate speculation—short- or long-term profit-seeking transactions—accounts for the remaining transactions, at least 80 per cent. These speculative movements, which can take place rapidly and unpredictably, threaten to empty central banks' currency reserves" (Global Policy Forum, http://www.globalpolicy.org).

¹⁴In the 1970s, Nobel economist James Tobin suggested a 0.1 per cent levy on global currency transactions. See "James Tobin, Prix Nobel d'Economie", **LeMonde**, 17 November 1998 interview with Tobin on-line at http://www.lemonde.fr/actu/ economic/tobin. See also "Why We Need Sand in the Market's Gears", **Washington Post**, 21 December 1997. For a feasibility study of this tax, see Rodney Schmidt's 1995 **Feasibility of the Tobin Tax** undertaken for the Canadian Department of Finance, posted on http://attac.org/partis/docpoldoc14.htm. David Felix and others "have also examined the possibility of levying a charge on international monetary transactions as a means to reduce exchange rate volatility and promote international economic stability. In addition,

considering that annual currency trading is 10 times the global GNP, the revenue generating potential of a tax is tremendous. A modest .5 per cent tax would generate over US\$ 1.5 trillion per year (the total UN annual budget is about US\$ 10 billion) for peace and sustainable development (see http://www.globalpolicy.org).

¹⁵ Dobbin (1998) differentiates the transnational corporation of the past 20 or so years from its predecessor, the multinational corporation. He suggests that the earlier version established nearly autonomous operations in multiple countries, which encouraged a certain degree of local community integration. Dobbin argues that TNCs, on the other hand, are motivated to stand outside the purview of local corporate citizenship or national identity.

¹⁶This paragraph is based on Inter Press Service on-line article "Human rights: Holding transnationals in check", posted on http://www.oneworld.org/ips2/aug98/16_20_084.html.
 ¹⁷ Founded in 1960 and in operation since 1961, the Organization for Economic Co-

¹⁷ Founded in 1960 and in operation since 1961, the Organization for Economic Cooperation and Development is a consultative body for co-ordinating economic policies and encouraging growth and trade. Housed in Paris, the OECD has 29 members, including the world's most affluent countries. The OECD advocates freer trade and initiated the MAI negotiations.

¹⁸ Excerpt from a Sierra Club press release posted to the tw-list@essential.org mailing list as well as the Sierra Club's Trade Program at http://www.sierraclub.org/trade.

¹⁹ Formed in 1995, shortly after UNCED, the WBCSD emerged from the union of the World Industry Council for the Environment and the Business Council for Sustainable Development. WBCSD maintains links with several national and international entities including the UNDP and the ICC.

²⁰ Formerly known as the Valdez Principles, the Coalition for Environmentally Responsible Economics (CERES) is a not-for-profit organization located in Boston. It promotes standardized corporate environmental reporting and requires signatories to complete the detailed CERES Report annually. The responses are then available to the public. Currently, 46 organizations and businesses endorse the 10 CERES Principles. For more information, visit http://www.ceres.org.

²¹ An initiative of the chemical industry, Responsible Care is a code of practice for the management of chemical products. Started in Canada in 1984, its guiding principles include the promotion of clean technologies, improved waste and effluent management and the publishing of performance indicators. Most global chemical groups are part of Responsible Care.

²² In 1991, Keidanren (The Japanese Federation of Economic Organizations) initiated the Global Environment Charter. See Chair Shoichiro Toyoda's Keidanren's Voluntary Action Plan for the Environment posted on http://www.keidanren.or.jp.
 ²³ Comprised of four "system conditions", the Natural Step is an approach to sustainable

²³ Comprised of four "system conditions", the Natural Step is an approach to sustainable business developed by Karl Henrik-Robert in collaboration with other scientists, first adopted by Swedish companies in the beginning of the 1990s (Henderson, 1998). According to the approach, these steps are the non-negotiable conditions necessary for a sustainable society; they are drawn from scientific principles including the second law of thermodynamics and the law of conservation.

²⁴ The International Organization for Standardization (ISO) offers the 14000 series of environmental standards; ISO 14001 is the international environment management standard. Some companies such as Rhône-Poulenc use the management standard to help them meet the requirements of the Responsible Care program. See http://www.rhonepoulenc.com for further information. See also International Institute for Sustainable Development, 1996; Tibor and Feldman, 1995, and for a critique of ISO 14001, Krut and Gleckman 1998.

²⁵ Eco-Management and Audit Scheme (EMAS) was first proposed by the European Union.
 ²⁶US EPA voluntary environmental initiatives of the United States Environmental

Protection Agency include leading signatories Eli Lilly and Baxter International.

²⁷ The Paris-based ICC formulated the 16 principles of the **Business Charter for Sustainable Development** in 1990. The ICC Internet site is http://www.iccwbo.org.

²⁸ Dr. Stephan Schmidheiny was UNCED Secretary General Maurice Strong's principal adviser. In preparation for UNCED in Rio, he organized 48 business leaders into the

Business Council for Sustainable Development, which later merged with an ICC group of 60 TNCs—the World Industry Council for the Environment (WICE)—to form today's World Business Council for Sustainable Development. Finger and Kilcoyne (1997) suggest that Schmidheiny made a sizeable financial contribution to the Rio Earth Summit. He has also served on the boards of directors of some of the largest global corporations including Nestlé and Asea Brown Boveri.

²⁹ "Eco-efficiency is reached by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle, to a level in line with the earth's estimated carrying capacity". See http://www.wbcsd.ch/ecoeff1.htm.

³⁰ Frances Cairncross (1995) argues that new technologies need to be created to deal with environmental problems because people will not accept lower material standards of living; hence, business must play a key role in developing solutions.

³¹ Publications include corporate annual environmental reports, op-ed pieces, articles in local and international periodicals, reports and books dedicated to business perspectives of sustainable development, such as **Tomorrow**, which is available in print and on-line. **Tomorrow** bills itself as the voice of global environmental business. The on-line version may be viewed at http://www.tomorrow-web.com.

³² NGOs were created when the UN was founded; the term was used to describe a particular relationship between intergovernmental organizations and civil organizations. Today it is used more broadly to encompass non-public organizations. See Riva Krut (1997). Simmons (1998) notes that in a 1994 UN document, an NGO is described as "a non-profit entity whose members are citizens or associations of citizens of one or more countries and whose activities are determined by the collective will of its members in response to the needs of the members of one or more communities with which the NGO cooperates". Also posted on http://www.foreignpolicy.com/Fall98/articles/ART8.htm.

³³ See http://www.tbwt.com (viewed 27 September 1998).

³⁴ Some estimates state that Internet usage doubles every 100 days.

³⁵ My apologies to readers for whom the content of this section is already familiar; the basics of Internet communication are included here with the recognition that given the diversity of knowledge in this area and the rapidity of technological development, it is difficult to assume a common knowledge base.

³⁶ ARPANET was designed to withstand breakdowns along any of its connections by sending information as packets or bundles of data; if a connection broke down, the packets could be automatically re-routed.

³⁷ World-renowned particle physics laboratory, the Centre Européen de Recherche Nucléaire, located in Geneva, Switzerland.

³⁸ Uniform Resource Locator (URL) is the name given to the Internet address of files, documents and home pages.

³⁹ See **Shift** magazine's **The Net Issue**, October 1998. Their list of statistics derives from numerous sources including Reuters, PC World, Seattle Times, CBS News and Matthew Gray of MIT.

⁴⁰ See Internet Information Center at http://www.Austria.eu.net/iic.

⁴¹ E-mail communication with Robert Pollard, Director of Information Habitat, a project of the Communications Coordination Committee for the United Nations, and an NGO in special consultative status with ECOSOC, 31 August 1998. ⁴² The Forth Negatistican P. ⁴³ (1998).

⁴² The **Earth Negotiations Bulletin** is published by the International Institute for Sustainable Development (see http://www.iisd.ca/linkages). IISD also publishes Sustainable Developments, a reporting and information dissemination service for workshops, seminars and conferences.

⁴³ A useful source of late-breaking environmental news, particularly around trade and environment issues such as the proposed Multilateral Agreement on Investment.

⁴⁴ See http://www.web.apc.org/~econews.

⁴⁵ See the SDNP home page at wysiwyg://77/www.sdnp.undp.org/home.html.

⁴⁶ See http://www.wedo.org

⁴⁷ See http://www.apc.org

⁴⁸ For further information, visit the WEDO gopher at gopher://gopher.igc.apc.org.

⁴⁹ The NGO is known in English as Environment and Development Action (ENDA) in the Third World. See http://www.enda.sn.

⁵⁰ The Sustainable Development Gateway can be found at http://www.sdgateway.net. The Web site is sponsored by the IDRC in Ottawa and the Winnipeg-based IISD.

⁵¹ The Fundacion Ambiente y Recursos Naturales in Buenos Aires.

⁵² "Cyberspace" is a popular term used to refer to the world of computer-mediated communications.

⁵³ 75 per cent of Africa's 53 capitals have access to the Internet, compared with only 16 per cent at the end of 1996. Current estimates suggest that there are approximately one million users in Africa, with most in South Africa. Clearly access remains an important issue although the gap does appear to be narrowing. For further information on the state of connectivity in Africa, see Jensen (1998).

⁵⁴ See http://www.enda.sn//synfev (viewed 27 October 1998).

⁵⁵ E-mail communication with Nicola Bullard, Editor, **Focus-on-Trade** bulletin, Focus on the Global South, Bangkok, Thailand, 14 September 1998. The organization's Web site is located at http://www.focusweb.org.

⁵⁶ See http://www.freeburmacoalition.org.

⁵⁷ SLORC has recently been renamed the State Peace and Development Council.

⁵⁸ In late October 1998, due to discrimination complaints from both Japan and the European Union, a WTO panel was set up to investigate the 1996 Massachusetts law banning companies from undertaking business with Burma (Myanmar). The panel, however, has been suspended since early 1999 in what is understood to be a gesture of goodwill to the US.

⁵⁹ The text of the Public Broadcast Services documentary may be viewed at PBS Online at http://www.pbs.org.

⁶⁰ E-mail communication with Shell Information, 8 February 1999.

⁶¹ See http://www.mcspotlight.org. It is interesting to note that while McSpotlight aims to offer an alternative to mainstream media, it is one of the most-covered Web sites and receives significant media attention worldwide in leading publications, including The Times of India, BBC Radio 4, BBC 1 and 2 and the World Service, USA Today, NBC, Chicago Tribune, Helsingin Sanomat, The Guardian, The Australian, Planète Internet, The Observer, and the International Herald Tribune.

⁶² McSpotlight has mirror sites around the world, partly to ensure that should one site close through outside intervention or otherwise, the other sites will still be available.

⁶³ McSpotlight contains a comprehensive frequently asked questions (FAQ) section on the history of the Web site at http://www.mcspotlight.org.

⁶⁴A hit is a single file request in the log of a Web server. A request for an HTML page with three graphic images, for instance, will result in four hits in the log: one for the HTML file and one for each of the GIF files. The number of hits to a site suggests the level of traffic a server handles, but it can be a misleading indicator of how many pages are being looked at or how many visitors there are to a site. By mid-1998, the number of hits on McSpotlight was about 1.3 million. Web site logs can track a number of site characteristics, including not only hits but also megabytes downloaded, pages viewed and visits. Page impressions, and particularly user sessions, are a more meaningful indication of the number of visitors to a site than hits. Interestingly, the McSpotlight FAQ states that McDonald's corporation accessed the site 1,700 times in the first week.

⁶⁵ According to the latest UNCTAD data, developed countries took almost two-thirds of foreign direct investment (FDI) inflows in 1995, while developing countries accounted for less than one-third (Tait, 1998).

⁶⁶ And when these concerns are considered for inclusion in trade agreements, critics argue that this is often done after the fact or they added to non-binding preambles.

⁶⁷ Organization for Economic Co-operation and Development. See also Web site at http://www.oecd.org.

⁶⁸ In a statement delivered at the April 1997 UN Commission on Sustainable Development, the World Council of Churches articulated the growing criticism of the current international

trading regime; in a critique of the World Trade Organization, the statement questions "the idolatry which is often bestowed upon the notion of free trade, market access, speculative investment, and competition, seemingly at any cost" (Taskforce on the Churches and Corporate Responsibility, 1998).

⁶⁹ Excerpt from e-mail on NGO consultation with the European Union and Commission on the MAI (22 May 1998). Forwarded by Charles Arden-Clarke, WWF-International, 28 May 1998.

⁷⁰ According to its MAI Policy Brief (OECD, 1997), the interest of the OECD in the agreement derives from the commitment of members to trade liberalization and the fact that they have a major stake in investment rules, since they account for 85 per cent of FDI outflows and 60 per cent of inflows. The ICC and the Canadian government, however, have called for future MAI negotiations to be moved to the WTO.

⁷¹ Excerpt taken from an Internet posting of the Journal of Commerce article, viewed 10 December 1998.
 ⁷² The Business Council on National Issues (BCNI) was formed in 1976 by Canadian

⁷² The Business Council on National Issues (BCNI) was formed in 1976 by Canadian business leaders to ensure a greater role in government policy making. The council lobbies for increased trade liberalization and privatization.

⁷³ Interview with Lori Wallach, Director, Public Citizen's Global Trade Watch, Geneva, 23 March 1998.

⁷⁴ Excerpt from Web-posted archived article at http://www.guardian.co.uk. Article reprinted as "Warfare across the Web", 3 February 1999.

⁷⁵ See IGC Web site at http://www.igc.org.

⁷⁶ "The MAI thus marks a stage in international economic negotiations. For the first time, one is seeing the emergence of a global civil society represented by NGOs that are often based in several states and communicate beyond their frontiers. This evolution is doubtless irreversible."

⁷⁷ "Furthermore, the development of the Internet has shaken up the environment of the negotiations. It allows the instant diffusion of the texts under discussion, whose confidentiality becomes more and more theoretical. It permits, beyond national boundaries, the sharing of knowledge and expertise. On a subject which is highly technical, the representatives of civil society seemed to us perfectly well informed, and their criticisms well argued on a legal level."

⁷⁸ France also suggested moving MAI negotiations to the Geneva-based WTO—a move supported by Sir Leon Brittan, European Commissioner for Trade, but strenuously opposed by many NGOs such as the Third World Network.

⁷⁹ While the MAI negotiations suffered significantly in 1998, the ideas contained therein continue to be discussed. In addition to socio-cultural and environmental concerns, there is considerable debate as to the location of similar negotiations in the future, with growing calls for a move from the OECD to the WTO.

⁸⁰ E-mail communication with Robert Pollard, 31 August 1998.

⁸¹ E-mail communication with Martin Baker, Communications Development Manager, Greenpeace International, 19 October 1998.

⁸² See http://www.corpwatch.org.

⁸³ Based on Joshua Karliner's e-mail announcement of Corporate Watch Web site.

⁸⁴ A hyperlink allows visitors to jump instantly from the Web site they are on to another Web site. A regular link enables visitors to jump within a Web site. NetAction publishes a useful guide to making the most of Web sites and e-mail as activist tools. **The Virtual Activist** is available on-line at http://www.netaction.org/training/reader.html.

⁸⁵ See http://www.panna.org.

⁸⁶ See http://www.oneworld.org.

⁸⁷ E-mail communication, 4 September 1998.

⁸⁸ E-mail communication, 1 September 1998. Bruno is a Greenpeace campaigner and coauthor of **Greenwash: The Reality Behind Corporate Environmentalism**. See http://www.foe.org.

⁸⁹ See http://www.inxs4all.nl/~foeint.

⁹⁰ Interview, 24 March 1998. Mehra, the Earth International Programmes Officer also notes that the anonymity of e-mail can also enable unfriendly or disruptive people to join mailing lists.

⁹¹ See http://www.twnside.org.

⁹² See http://www.greenpeace.org.

⁹³ See http://www.rafi.org.

⁹⁴ See the Terminator action page at http://www.rafi.org/usda.html.

⁹⁵ See http://www.ran.org.

⁹⁶ RAN acknowledges that some problems with Solcarsa remain, including unpaid fines and reports of instances of continued logging in the region. See the organization's Web site.

See the Panda Passport at http://www.panda.org.

⁹⁸ E-mail communication, 19 October 1998.

⁹⁹ The GCC is a group of US industrial giants which lobby against stronger government measures to combat climate change. ¹⁰⁰ The Shell Report—1998: Profits and Principles—Does There Have to be a Choice?

http://www.shell.com/download/2872/

¹⁰¹ The Rio Declaration notes that "in order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (Article 15). The precautionary principle is also applied in the Framework Convention on Climate Change. For an elaboration on the principle's roots in the German idea of vorsorge and its core concepts, see O'Riordan and Cameron (1994).

¹⁰² E-mail communication with Julia Flynn, 23 September 1998.

¹⁰³ E-mail communication, 11 March 1998. NetAction is a project of the Tides Center, an American non-profit organization. NetAction works to ensure the accessibility of information technology and the Internet; see http://www.netaction.org.

¹⁰⁴ Gopher is a menu-based system used to organize and retrieve programmes and files on the Internet.

¹⁰⁵ File Transfer Protocol refers to the rules regarding the transfer of files and programmes over the Internet. FTP allows file transfer among computers irrespective of the computer types or operating systems involved in the exchange. See Internet Glossary of Terms at http://www.nytimes.com.

See http://www.unep.org. Since Internet dissemination is a new method for UNEP, visitors are encouraged to send e-mail feedback on the site's usefulness.

E-mail communication, 31 August 1998. He also notes that "these factors are all reflections of the underlying economics of information and communications technologyeconomics that are in many respects radically different from the economics of the production and exchange of material goods, perhaps most notably in the fact that in a number of critical areas, marginal costs are virtually zero-undermining a traditional economic framework that is based, at least in theory, on a supply and demand relationship in which price tends to approximate marginal cost."

¹⁰⁸ E-mail communication, 27 October 1998.

¹⁰⁹ E-mail communication, 4 September 1998.

¹¹⁰ Interview, Geneva, 23 March 1998.

¹¹¹ E-mail communication, 4 September 1998.

¹¹² E-mail communication with Nicola Bullard, 14 September 1998.

¹¹³ E-mail communication, 22 September 1998.

¹¹⁴ Message to Marjaleena Repo, National Organizer, Citizens Concerned About Free Trade and posted on news.flora.org/flora.mai-not/4306 (viewed 15 May, 1998).

¹¹⁵ E-mail communication, 11 June 1998.

¹¹⁶ E-mail communication, 14 September 1998.

¹¹⁷ E-mail communication with Julia Flynn, Oxfam-UK Internet Project Manager, 23 September 1998.

¹¹⁸ Additional steps some companies are beginning to take include hiring Internet clipping services to monitor on-line coverage and critique of corporate activities, as well as taking organizations to court for on-line content.

¹¹⁹ The McDonald's corporate site went on-line, two months after the anti-McDonald's McSpotlight site. An interesting feature of McSpotlight is the "SiteSeeing Tour" of the McDonald's site that takes visitors through the corporate site accompanied by critical analysis of its design and content.

¹²⁰ E-mail communication with the Policy Manager of Trade, Investment and Customs for the Department of Policy Commissions, 12 June 1998.

¹²¹ The 28 September 1998 meeting briefed NGOs on the Dispute Settlement Body meeting and the General Council Special Session. This information was gleaned from the mailing list **mai-not-digest**, Vol. 2 No. 463.

¹²² The Bellerive/GLOBE International Conference (Geneva, 23-25 March 1998).

¹²³ There are also 25 WWF Web sites from affiliates around the world.

¹²⁴ The expression comes from a TNC representative at the Liaison Delegate Meeting of the World Business Council for Sustainable Development (Geneva, 25-27 March 1998).

¹²⁵ Television interview from Paris, shown by the Canadian Broadcasting Corporation, April 1988.

¹²⁶ See http://www.bm.com.

¹²⁷ Proud of its successes to date, the industry has started to promote its accomplishments on the Internet. For example, the PR Central Web site—http://www.prcentral.com) developed by the publisher of **Inside PR** and **Reputation Management**—describes itself as a service for professional communicators. When Ethyl Corporation faced incessant and vociferous criticism for producing the gasoline additive MMT by the Environmental Defense Fund and the US Environmental Protection Agency, it hired the public relations firm Carter Ryley Thomas. In an article entitled "*Issues ad campaign helps ethyl overcome its critics*", site visitors learn how the PR form designed an advertising campaign to refute Ethyl's critics and extol the additive's alleged environmental benefits. In order to convey its message to the widest possible audience, the article details how the PR form targeted major customer and industry locations and then ran an aggressive full-page "Clear the Air" advertisement in 20 publications. Although it is difficult to measure the success of advertising and public relations, the EPA eventually did stand down from its 19-year ban on MMT.

¹²⁸ Stauber and Rampton (1995) claim that almost 40 per cent of what is represented as news in the United States is actually produced by public relations companies.

¹²⁹ In 1998 Fletcher Research, supported by McKinsey, published the results of a survey of the Web sites of the biggest companies in the United Kingdom. The report found that two thirds of corporate Web sites are designed with little interactivity and simply to display information. See "Big company sites criticized" in **The Financial Times**, 26 January 1998. ¹³⁰ See http://www.rhone-poulenc.com.

¹³¹ E-mail communication, 3 June 1998. See http://www.eskom.co.za.

¹³² E-mail communication with Acting New Media Manager, Unilever Corporate Relations, London, 26 August 1998.

¹³³ E-mail communication with Lionel Walsh, 12 June 1998. See also http://www.iccwho.org.

¹³⁴ While NGO site managers approached in the study were generally eager to talk about their Internet communication strategies, corporate representatives were less willing to disclose such information. Although this examination of Web sites—based on questionnaires as well as site surveys—revolved around these key characteristics, it was not limited to these concerns. For further notes on corporate research, see Appendix 2. It is important to note here that Web sites are often in a state of flux reflecting rapid advances in information technologies as well as changing political realities. While the Web sites of some companies may appear here at level three, for instance, they may subsequently move up in rank.

¹³⁵ And while many companies were at first unwilling, a greater number now submit their corporate environmental reports to verification. SustainAbility conducts a Benchmark

Survey for the United Nations Environment Programme. The 1997 survey covers corporate environmental reports and compares report quality by country and by sector. It examines corporate environmental reports from 16 sectors and 18 countries. See "*Hitting the higher ground—The 1997 Benchmark results*" by Elkington, Kreadner and Stibbard in **Tommorrow** magazine, January/February 1998.

¹³⁶ See http://www.glaxowellcome.co.uk/home.html.

¹³⁷ See http://www.unilever.com.

¹³⁸ See http://www.monsanto.com.

¹³⁹ E-mail communication, 20 and 22 May 1998.

¹⁴⁰ Threaded discussions enable Web site visitors to engage others users in debate about topics of their own choosing. For instance, a visitor might start a discussion about a company's environmental policies in Asia by posting comments on the Web site. Interested viewers would then participate in the discussion by posting their own feedback.

¹⁴¹ Interestingly, during an earlier visit to Speakers' Corner a visitor had posted a graphic rendition of the company's Shell logo which replaced the lines of the shell with the elongated bodies of hanged men an obvious reference to the Nigeria situation. This graphic is no longer on the site.

¹⁴² E-mail communication with Addison Holmes, Communications Department, WBCSD.

¹⁴³ See http://www.hrw.org.

¹⁴⁴ E-mail communication, 1 September 1998.

¹⁴⁵ See http://www.foundation.novartis.com.

¹⁴⁶ Comments made at the Liaison Delegate Meeting of the World Business Council for Sustainable Development (Geneva, 25-27 March 1998).

¹⁴⁷ E-mail communication, 26 August 1998.

¹⁴⁸ E-mail communication, 12 June 1998.

¹⁴⁹ E-mail communication with Luiz Fernando Brandão de Araujo, Communications Coordinator, Aracruz Celulosa SA, Brazil, 3 and 9 September 1998.

¹⁵⁰ Most respondents based this assertion on site statistics, which suggest the number of unique visits, rather than simply hits, which may indicate a general level of activity but do not indicate visitor numbers.

¹⁵¹ E-mail communication, 20 and 22 May 1998.

¹⁵² E-mail communication, 9 June 1998.

¹⁵³ All from e-mail communication, 12 June 1998.

¹⁵⁴ E-mail communication, 1 September 1998.

¹⁵⁵ See http://www.shell.com/download/2872/

¹⁵⁶ See http://www.ewatch.com.

¹⁵⁷ See http://www.infonic.com.

¹⁵⁸ E-mail communication with John Stauber, Director, Center for Media and Democracy, 31 August 1998.

¹⁵⁹ E-mail communication, 19 October 1998.

¹⁶⁰ The report was commissioned as a study of the implications of "technology revolution"

on development; it serves as the guiding document for UNDP's work in this regard.

¹⁶¹ See http://www.gn.apc.org/ecologist.

¹⁶² "Pulp non-fiction: The Ecologist shredded", column posted to the CORP-FOCUS mailing list, 23 October 1998. Focus on the Corporation columns are also posted on the Multinational Monitor Web site, http://www.essential.org/monitor.

¹⁶³ The concerns SAMWU has regarding water privatization include a lack of representation of black South Africans in management positions, a lack of free access of up to 50 litres per person per day, environmentally destructive dams and under-maintained reservoirs, and an absence of accountability of service providers to local communities.

¹⁶⁴ For more information, view the 5 June 1998 editorial at http://www.corpwatch.org. See also the controversial article and **Internet Censorship Strikes NGOs** on the LabourNet Web site at http://www.labournet.org.uk. The South African Municipal Worker's Union Anti-Privatization Web site is at http://www.cosatu.org.za/samwu/private. The Biwater Web site is at http://www.biwater.com.

¹⁶⁵ E-mail communication, 11 March 1998

¹⁶⁶ E-mail communication, 26 August 1998. See also Karliner (1997).
¹⁶⁷ E-mail communication, 31 August 1998.
¹⁶⁸ This section only introduces the eco-effective model offered by the authors in response to what they contend are the shortcomings of the eco-efficiency paradigm. To learn more about this interesting design approach to industrial development, see the three-part article in the October 1998 issue of The Atlantic Monthly, or the on-line version at http://www.theatlantic.com/issues/98oct/industry.htm.