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<th>Telecommunication and world order : Terra Cyborg</th>
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We are the world

Stories about cyborgs, flesh and brain grafted onto plastic and silicon chip, litter our television screens. Some cyborgs, such as the Bionic Woman, are symbols of ‘might for right’; others are Frankenstein robots of our collective mediated consciousness, who abuse their superhuman strength, mindlessly and without conscience. These cultural expressions of hope and fear may very well be externalisations of human nature. They also are readings of the nature of technology, as extension of man over nature.

Whether one views our future through the technophobic or technophilic ends of the telescope, will see that mankind and its extensions are linked inextricably - society, microchip and satellite transponder - through the network of the world computer.

Ineffable numbers of blocks of skills were brought together, through history’s just-in-time technology, to craft today’s world computer. The world computer is not the creation of one people. These skills come from all over the world and from all streams of culture.

Additionally, one might say that while the industrial revolution introduced factory production, based on division of labour and organised work procedures in a mechanised work environment, the information revolution has sucked the factory process into computer software and peripherals. The world computer is a factory.

It is a factory for media and industrial products. It is also a new public sphere for popular cultural expression. It is a new avenue for surveillance and political agenda setting.

The term cyborg has entered popular culture in the form of science fiction and seems to refer to a visitor from mankind’s future. In fact the word cybernetics derives from the Greek nautical past, meaning ‘steersman.’ Colin Cherry reminds us that Andre Ampere used the term ‘cybernetics’ in Essai sur la philosophie des sciences (1834,) to mean the ‘science of government and control.’ Norbert Weiner and Rosenblueth saw that cybernetics, as a science of communication and control through feedback, applied in the animal kingdom as well as the world of human extensions, machines.

There is an interlinking of individuals, institutions, societies and the network called the world computer which gives the whole a cyborg nature. In that sense ‘we are the world, we are the cyborg.’ Collectively, society and the world computer, may be viewed as Terra Cyborg. We are, then, individual cells in this cyborg, we are cyborganisms.

Cyborganisms which function collectively on an institutional basis are cyborganisations. They have their own ‘administrative vocabularies.’ Cyborganisations are linked via the the collective extension we call the world computer, an extension which incorporates other extensions, languages, verbal and otherwise, as software processes. These languages provide the ‘international vocabularies’ for ‘global culture,’ the ‘world market’ and the ‘international system.’

Global culture, the world market and the international system are cultural, political and economic features of international society, each of which has specific international vocabularies, which use the world computer as a channel. The international vocabulary of global culture includes popular music, television news and entertainment. The internationalational vocabulary of the world market includes financial data and advertising. The international vocabulary of the international system includes political and economic news as well as diplomatic, regulatory and political activist communications.

On the economic side, the world machine incorporates a telematised world system for production, storage and distribution of goods, services and information. Though the term ‘world computer’ might relate specifically to the latter commodity, that commodity plays a primary role in all computerised production, storage and distribution, whether of information or other goods. The world machine consists
of the world computer and its peripherals. Being a channel for communications within global culture, the world market and international system, it is the locus of political economic power. Its terrain is rich territory for political economic and sociological inquiry, for empirical study.

Additionally, all individuals belong to ethnohistorical groups which have their own extensions, languages. These are 'ethnohistorical vocabularies,' loci of cultural power. Some individuals and organisations are not closely linked to the world computer but will be embedded in their own ethnohistorical matrices. Ethnohistorical matrices are, therefore rich fields for enquiry through polysemic approaches to knowledge, ethnographic and cultural.

There are two terrains then, ethnohistorical where power is culture-driven and political economic, where power is profit-driven. There are historical moments and opportunities for denizens of ethnohistorical spaces to seek to translate cultural power into political economic power. To belong to an ethnohistorical matrix is to share a worldview with others. This sharing may be based on knowledge of others' worldviews, or unconscious of others like-mindedness. A nation begins and always remains partly a matter of imagination. As Singer argues, sharing a perceptual world quickly becomes sharing an identity group when there is a consciousness of like-mindedness. An identity group is a tinder box which can quickly become inflamed as an action group which seeks to translate cultural power to political economic power.

Elites controlling political economic space will often seek to hasten the process through which political economic power leads to cultural hegemony, thus perpetuating a cost-effective political economic power - one which incurs relatively low transaction costs.

In my view 'Global Culture,' (capitalised 'c' and 'g') or the sum of all human culture, is therefore the sum of global culture (international vocabulary) and local cultures (ethnohistorical vocabularies.) It is not 'international vocabulary' alone. The world computer, including media, as an expression of political economy, will migrate as a matter of course toward being a channel for cultural hegemonies.

But there are two matrices which influence and are influenced by human agency, one political economic and the other cultural. Global and local societies are shaped not by one or the other of these matrices, but by the state of flux of their complex relationship. Given the often contradictory goals of ethnohistorical and political economic matrices, what strategies can be adopted by all players in a single Terra Cyborg, to allow mutually acceptable social transformations, without conflict?

**Cybernetic view of International (Public) Relations**

'Realists' view world politics as a state of unpolicled disorder, where individual states must protect themselves with weapons. There are many kinds of 'idealists' but in general today they believe that states have become too economically interdependent to use weapons on each other. They also believe that there is a global process of economic and political regulation which unfolds through multilateral negotiations.

A theorist of the realist school of international relations, Kenneth Waltz, called for a systems approach to international relations in his Theory of International Politics. "The repeated failure of attempts to explain international outcomes analytically - that is, through examination of interacting units - strongly signals the need for a systems approach." Systems approaches are by definition conservative because of a system's characteristics. Systems are goal directed. A system's basic goal is self-maintenance.

Waltz distinguishes between the Hobbesian state of nature (anarchy, chaos, destruction, death,) anarchic orders and government in the international system. Having argued correctly that the present system is one of anarchic order, with degrees of interdependence and cooperation outside of an international world state constructed on the lines of modern national states, Waltz sees the formula for international stability as one based on the leading economic power (the United States) managing economic order. This is a formula based on a modern reading of system, as an organization of units which has a centralised steering mechanism, in much the same way as the human organism has a brain which is the steering mechanism of the steering system (central nervous system.) A post-modern reading of system may discern a collection of units which have decentralised steering mechanisms, coordination rather than leadership, akin to a plant whose unity and cohesion is a response to environmental conditions. A plant is a system without a centralised steering mechanism. The Giant Redwood bears testimony to the fact that plants can exhibit longevity as systems.
Lasswell provides a succinct description of a biological system, where the whole is the sum of its parts: ‘Multicelled animals specialize cells to the function of external contact and internal correlation’. The world cyborg must read, and respond to, its environment through the concerted efforts of its subsystems. The communication process in a society performs three functions: (a) surveillance of the environment, disclosing threats and opportunities affecting the value position of the community and of the component parts within it; (b) correlation of the components of society in making a response to the environment; (c) transmission of the social inheritance.

In this essay’s cybernetic construction of world politics, derived from John Burton’s pioneering work, communication has replaced power politics as the new realism. Here, the new realism is based on interdependence of information economies, and the webs of regulation spun internationally through diplomacy. An international ‘socionic’ or ‘cyborg’ community has particular characteristics which will impact on the kinds of surveillance, correlation and transmission which will be necessary. Terra Cyborg does not have a centralised steering mechanism. It does have a multitude of steering mechanisms, which I have reduced to the model which describes a complex relationship between cyborganisms, cyborgisations and political economic and cultural matrices.

Negotiating of pathways to the future is difficult for any cyborgorganisation today, state, IGO, NGO, TNC or subnational organisation. The multiplicity and simplicity of views projected by international media presents an essential problem for steering agencies, in relation to correlation with other steering mechanisms and in relation to transmission of preferred values to domestic publics.

States have a variety of ways of keeping external and internal environments under surveillance. The structure of diplomatic representation and of internal bureaucracy is used by the state to form pictures of external and internal reality. However bureaucratic reality-formation is subject to forces of distortion, because of bureaucratic complexity and political agendas within and around bureaucracies.

There has been a convergence of power elites around converged technologies. Not only have the technologies of computers, broadcasting and telecommunication converged, the three Lasswellian elites have converged around electronic telecommunication technologies. The Lasswellian elites are manipulators of symbols, of flows of goods and services and flows of instrumentalities of violence. In contemporary terms these elites belong to the media, market and state respectively. Telecommunications, previously only a channel for marketing of other goods including telecommunication peripherals, is now swallowing the market itself into cyberspace. As political economic elites share a common matrix, even if they may also be attached to very distinct ethnohistorical matrices, they share at least one ‘identity’ and belong to at least one elite ‘interest’ group.

Today there is an increased need for states and other international actors to have fuller pictures of political economic centres and cultural spaces in order to enjoy good relations with other actors and with internal actors. Proper feedback is essential to this process. In the contemporary more democratic world their is need for public support of ones actions. Public support cannot be sustained through pure persuasion, even if that may be considered to be an acceptable approach. It is expedient, at the very least, for political economic elites to be aware of not only political economic changes in the environment, but cultural changes and the interplay between political economic and cultural forces.

Public relations is no longer a matter of imposing ones views on another actor. The communication process should result in both actors learning about each other and changing in order to improve the relationship. This is true about all levels of communication, parent-child, husband-wife, employer-employee, business-consumers, government-public. Grunig et al discuss the evolution of contemporary two-way symmetrical public relations where organisations ‘use bargaining, negotiating, and strategies of conflict resolution to bring about symbiotic changes in ideas, attitudes, and behaviours of both the organization and its publics.

Re-searching mediated views of the world

Describing ‘Reality’ has always been something of a problem, as shown in George Gerbner’s generalised graphic model of communication which distinguishes correctly between an event (E) the observer (M) and the event-as-perceived E1. E is greater than E1. ‘An event ... is perceived by someone ... The event-as-perceived ... is the product of perceptual activity and thus the mediations and transformations of particular selective and contextual factors introduce the difference ...’
In describing an event to another, an observer (such as a journalist) produces a statement (SE) about the event, based on informational content (E1) reproduced on available meaning (representational) systems such as print, speech, photograph, film and the culture of such systems. The statement is perceived by a third party as SE1.

The media is the main mirror of the world for the majority of members of any society. Like any mirror, or description of 'reality,' media has no option but to reduce and thereby distort 'reality.' The danger is that this mere extension of man, media, is ultimately seen as 'reality.' Mediated reality becomes 'reality' and the complexity of what the mediation represents is forgotten. Edward Hall calls this process 'extension transference.'

Even the highly independent and well-resourced news media of the United States, protected by the constitution, are not able to provide an objective account of social reality. Parenti argues that US news media when measured against their own assertions of independence, objectivity, neutrality, informativeness, balance and truthfulness, fall short. Political, cultural and market ideology are intervening variables, intruding between events and reports.

Ours is a world where news reports shoot across the world, from country to country, affecting national image as perceived at home and abroad. There are costly political and economic consequences to negative images. Reality checks on the way in which media presents reality have become increasingly necessary. I do not mean that media should be asked to bury bones of contention in the journalistic backyard. Media provides an essential and valuable picture without which we cannot function in society. But studies may be conducted in order to check if media's representations of reality are adequate, accurate, one-sided, unbalanced. These reality checks cannot be conducted by media. Nor should they be conducted by a particular group of academics using a particular methodology, from a preferred epistemological orientation. What is necessary is a continuous inquiry into the nature of media and media constructed reality by a community of scholars drawing on varied perspectives.

Pure information is of no use. One needs frames through which to view the information. Frames of the world provided by either media or bureaucracies will never be totally adequate. The media seeks a resolution of its conflicting goals, of profit-making for share-holders and informing of publics, through focusing on entertainment as content in its own right and as a form for informational content. The limiting nature of the perception process described above is only compounded by the dynamics of entertainment, increasing the unreliability of media as a sole source of information. The labour of media researchers provides alternative views of the way in which media views the world. The great strength of media studies is that it derives from varied epistemological traditions, from the 'objective' to the 'subjective.' Objective approaches are necessary to read some of the political economic changes which take place while subjective approaches are useful in reading some of the cultural dynamics.

Organizations such as AMIC and the 40 year old International Association for Media and Communication Research perform a valuable service in this respect to the global community. Researchers examine a wide range of media and communication perspectives from a variety of approaches. Information producers, i.e. states, TNCS, IGOS, NGOs, media and academics need to be have cybernetic relationships with each other, learning relationships, in order to promote the values of national and international stability, to promote widely accepted and desired 'proper agendas.' The use of international media and communication research as an additional input for reality conceptualisation, can only provide a better picture and allow agencies of various kinds to relate better to their various constituencies. There is too much at stake in relation to nation states, corporations and other agencies to allow for decision-making based on limited feedback channels.

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Any selection of blocks of skills is incomplete and unsatisfactory. Blocks of skills sit on 'parent' blocks of skills and have components which are derived from other blocks of skills and so on till the first beginnings of mankind. To select any one invention rather than another as a point of departure is to make a choice which has political implications. For instance if I was to treat block printing which was practiced in 'Asia' by 450 AD as the beginning of the world computer I would be suggesting that 'Asia' was the fount of technologies leading to the world computer. Alternatively if I were to treat Gutenberg's hand press of 1456 as the key invention, I would be making a similar suggestion about 'Europe.' Apart from the press, many other inventions including speech, mathematics, and the wheel, inventions from all over the world, have contributed to the streams of technology which have converged in the world computer of today.

Through information's role as agent of machine control, it plays an increasingly important role in robotic operations through the channels of the world computer.

"Within international political economy we can recognize a new universal vocabulary of regime theory of international relations, one used by Hobbesians (realists) and Grotians (idealists) alike as well as by liberal and neo-Marxist theoreticians within political science, economics, political economy and law. These scholars are able to identify important new actors in the form of international regimes, but read their significance from within particular theoretical perspectives, for instance realist or idealist. It is diplomats who construct regimes, when they are constructed consciously and regimes are very much part of their vocabulary" (Chitty 1994, 102.) For an account of regime theory see Stephen Krasner's International Regimes (Krasner.)

Bibliography


