The Empire Strikes Back Again:

The Cultural-Politics of the Internet

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In the March 1996 issue of *Wired*(4.03), Nicholas Negroponte provided one of the more recent expressions of a concept that has been at the heart of on-line interaction for quite some time. In this editorial, which is titled "Pluralistic, not Imperialistic," the founding director of MIT's Media Lab argues that the telematic [1] network is not the next stage of American imperialism but rather a free domain that fosters and encourages global pluralism. "The idea that the Net is another form of Americanization and a threat to local culture is absurd. Such conviction completely misses and misunderstands the extraordinary cultural opportunities of the digital world" (Negroponte, 1996, p. 216). Contrary to the imperialist aspirations that had accompanied the "mechanical age," the "information age" has been determined to offer global liberation and multicultural empowerment [2]. According to Negroponte's assessment (1996), "the Net is humankind's best chance to respect and nurture the most obscure languages and cultures of the world" (p. 216).

I would like to reconsider this rather popular line of argumentation that has had profound effects on the perceived social and political implications of the telematic network. Although the internet appears to be international, it has distinct national origins and was developed for purposes other than global communication. The Net originates in the Advanced Research Projects Agency of the US Department of Defense. In the early 1960's, the DOD was experimenting with a new data communications technology called "packet-switching." This technology fostered the development of a new kind of computer network, one which supported multiple-users and resisted system-wide crashes by automatically rerouting data around downed circuits. The goal of this experimental network, originally named ARPANET, was not the decentralized global information system that is heralded in current technical and popular discourses. Rather, its original purpose was directed by the exigencies of the cold war. The DOD researchers that developed ARPANET sought to design the prototype of a national-defense, data-communications systems that would be immune to and survive the devastation of nuclear aggression. The internet, therefore, traces its genealogy directly to one of the primary agents of American hegemony and the effects of this paternity can still be read in the very structure and content of the "global network."

At The Virtual Center Of Decentralization

The decentralized characteristics for which so many praise the net did not arise out of anarchist intention, but out of nomadic military strategy (Critical Art Ensemble, 1997, p. 2).

One of the most distinctive characteristics of ARPANET and its direct descendent, the internet, is its decentralized architecture. Prior to the development of ARPANET, information networks were commonly designed around a central server that coordinated and controlled all aspects of data communications. The disadvantage of this systems-architecture is obvious. To disable the entire network, one only need hinder the central hub. ARPANET, on the contrary, disseminated all operations throughout the network. It was, therefore, comprised of a loose amalgamation of independent computers, or what Negroponte (1995) has called "a lattice of heterogeneous processors" (p. 180). It is this decentralized systems-architecture that rendered ARPANET virtually immune to failure or destruction. And it is this same infrastructure that has been determined to constitute the Internet's resistance to cultural imperialism and control. As Negroponte (1996) asserts, "colonialism is the fruit of centralist thinking. It does not exist in a decentralized world" (p. 216).

The decentralized system of the Internet is dependent upon the allocation and designation of separate and distinct domains. Currently there are two kinds of top-level domains available to the public. Generic domains (.com, .net, and .org) [3], which are administered by Network Solutions through Internic and are assigned irrespective of geophysical location, and country domains, which are specified in ISO 3166 and administered locally. Despite the apparent neutrality of this conceptual schema, its practical implementation has, in effect, granted a privileged position to American users. The Electronic Frontier Foundation's *Everybody's Guide To The Internet* (1991) indicates this privilege without comment. "In general, American [Email] addresses end in an organizational suffix, such as ".edu," which means the site is at a college or university. Other American suffixes include: .com for businesses, .org for non-profit organizations, .gov and .mil for government and military agencies, and .net for companies or organizations that run large networks. Sites in the rest of the world tend to use a two-letter code that represents their country" (p. 23).

Top-level domain designations for users in the United States have not, in practice, incorporated suffixes indicating their nation of origin. Although some US institutions (most notably federal offices and state agencies) do employ the .us suffix specified

in ISO 3166, this application constitutes the exception rather than the rule. In general, only addresses belonging to netizens of "foreign countries" have consistantly employed explicit designations of nationality. This nomenclature is informed by and legitimizes US-centrism. On the one hand, the almost exclusive employment of generic domain names by US users virtually universalizes American netizens. Whereas non-American sites are almost always identified by specific indications of nationality and geophysical position, US users and institutions are denoted by the seemingly universal and generic category of functionality. Virtually disengaged from the particulars of geography and specific socio-political circumstances, US sites occupy a unique position that appears to be coextensive with the international scope of the Net itself. On the other hand, the absence of a nationally distinguished suffix, although implying nationality by exclusion, "normalizes American users" (Poster, 1995, p. 28). It positions Americans at the center of the virtual world and literally designates everything else as "foreign" or "alien."

In both universalizing and normalizing American users, the Internet, which is celebrated for its decentralized systems-architecture, actually situates Americans at the virtual center of the digital world. The Net, therefore, does not necessarily oppose or escape US domination. Rather, its architecture is originally supported and continually informed by US hegemony. Despite the de-centralized structure of the Net, the United States has occupied and continues to occupy a privileged position within the digital infrastructure.

Speaking Of Pluralism...

The language of the Internet, and not just its structure, is specific to the Western World (Interrogate the Internet, 1996, p. 126).

The internet, although supposedly global in scope and decentralized in structure, has situated American users in a privileged position. This privilege extends beyond the structure of cyberspace into the very mode of on-line interaction. From the beginning, English has been the unofficial official language of the internet. James Powell (1997) has even suggested that the "World Wide Web" be renamed the "English Wide Web." For "everything from browser menus, to the markup elements, right down to the normally invisible hypertext transfer protocol commands are in English" (p. 188).

This privileging of one specific idiom is usually justified on the basis of utility. According to Negroponte's assessment (1996), the privileged status of English should not be confused with cultural identity. For English "is a utilitarian language that lands planes safely and keeps the Net's infrastructure running" (p. 216). This appeal to utility, which is animated and legitimated by a distinctly American ethos (namely, utilitarianism), not only effaces its own history but remains ignorant of the cultural violence that it continues to perpetrate and justify.

The privileged status of English has not been decided by a global congress or international consortium. Its position is the direct result of colonial expansion and economic power. As Britain extended her empire throughout the globe between the 17th and 19th centuries, English gradually achieved the status of an international idiom. It was not only the official language of the colonies, but, through the workings of various British cultural initiatives, most notably education, it was eventually imposed upon the indigenous, colonized peoples [4]. More recently, the economic and political dominance of the United States directly after World War II has had a similar linguistic effect. As American products and ideologies flooded the global market, the dominant language of the United States came to occupy a central position in international business and industry. The use and utility of English as a LINGUA FRANCA [5] cannot simply be disengaged from the history that has formed and substantiated it. The privileging of this idiom, although currently useful for running network infrastructure and facilitating intercultural dialogue, has come at a substantial expense—one that we should not be too quick to forget.

The utility of English as an international language has been secured through considerable cultural violence. This violence, however, is not limited to a particular time in history. It is not something that is either over and done with or easily surpassed. Rather, traces of its linguistic imperialism are currently manifest in the very texture of on-line interaction. Currently, the only internetworking protocol for encoding computer generated text is ASCII, the American Standard Code for Information Interchange. In a multi-platform environment, like the internet, ASCII has a definite utility. It ensures that text information produced in one operating system or text editor will be able to communicate with and be manipulated by users employing a number of different and often times incompatible systems. But ASCII has serious limitations, which Tor Galaasen (1996) has explicated in his epistolary reply to Negroponte. "Much could be said in response to Nicholas Negroponte's 'Pluralistic, Not Imperialistic' (WIRED 4.03: 216), in which the main issue is elegantly avoided. I am talking about the binary representation of the characters I am writing right now—the seven-bit American Standard Code for Information Interchange, also known as ASCII. Sending Internet Email in Norwegian is like have a speech impediment forced upon oneself. Characters considered "special" by Anglo-Americans are essential to the freedom of expression of non-English-speakers. The telephone system does not require its users to speak only English, nor does the postal system require us to write only English. Was someone talking about pluralism on the Net?" (p. 26).

The internet, which according to Negroponte is supposed to provide the best chance for obscure languages, imposes a rather debilitating "speech impediment" on anyone who does not speak English or write in its rather limited alphabetic script. In its basic form, ASCII is limited to the 128 characters (letters, numbers, symbols) found on a standard, English-language keyboard. Although there have been several enhancements of the standard (i.e. 8 bit ASCII, which allows for 128 additional characters, and the ISO Latin-1 enhanced character set), it "cannot support every language spoken on the earth" (Powell, 1997, p. 189). In

particular, it cannot accommodate anything other than basic Indo-European, alphabetic script. It can only encode a limited number of diacritical marks and is absolutely unable to accommodate other alphabets (i.e. Cyrillic, Hebrew, Arabic) or non-alphabetic script (i.e. Kanji). Non-ASCII characters can be incorporated either through the employment of graphical character entities (images of the character encoded as a graphic file) or by installing a specific, predesignated international character set. Although these two techniques provide a means by which to mitigate the limitations of ASCII, they not only constitute special cases that are considered deviations from the norm but exhibit specific technical restrictions not encountered by ASCII users. Employing graphical characters, for example, is a time consuming process not only for the writer/programmer, who must encode each character as a separate graphic file, but also for the reader/user, who is required to wait for his/her system to display each graphic individually. International character sets, although more convenient, must still be procured or purchased and installed on each individual machine. Finally, even if one takes the time to encode graphical characters or is adequately equipped with the proper international character sets, the substructure of the internet is still mediated and supported by ASCII. In an HTML document, for example, the URLs, the document tags and hypertext transfer commands must be encoded in ASCII characters despite the idiom of the document's content.

Internetworking standards, like ASCII, which have become the standard for global information exchange and communication, have actually privileged American and Western European users. This privilege is not the result of some global "conspiracy." Rather, it is a by-product of the genesis and evolution of the internet. Because the Net was initially developed by and for the United States Department of Defense, it incorporated protocols and standards derived from the dominant idiom of the US federal government. However, in the process of international expansion, these protocols and standards have come into conflict with the global scope and multicultural context of what is now known as the internet. These standards, although no less useful for operating and maintaining the system, were not designed for nor are they easily adapted to global applicability. Contrary to Negroponte's assurances, the international employment of ARPANET technology has not escaped nationalism. Consequently, the internationalizing of the internet will remain illusory and incomplete as long as this situation is not explicitly addressed.

The Digital Imperium

Just when we thought that the age of European colonialism has finally come to an end, suddenly we are copied into the second age of virtual colonialism...(Kroker & Weinstein, 1997, p. 11).

In opposition to the imperialist legacy that had accompanied the mechanical era, the "information age" has been described as providing global liberation and multicultural empowerment. According to assessments like those offered by Nicholas Negroponte, the Net a priori resists any form of cultural imperialism. These messianic proclamations, however, remain rather naive. In the first place, statements that locate socio-cultural emancipation in the very material of technology efface history by actively disengaging technology from its cultural context and genealogy. Technologies are never neutral; they are always, as Simon Penny (1994) reminds us, products of a specific culture. Consequently, technologies are are always informed and animated by distinct ideologies and teleologies. The internet, in particular, is a product of the US Department of Defense, and its architecture and protocols were developed for purposes other than multicultural empowerment and cooperation. This is not to say that the Net could not eventually begin to disentangle itself from the web of its own genealogy. This disentanglement, however, would need to take this complicated paternity and its consequences seriously.

Second, blanket assertions like those made by Negroponte ignore the changing features of cultural hegemony in the digital era. If "being digital" entails the general transition from an economy of material atoms to one of immaterial information bits (cf. Negroponte, 1995, p. 11-13), then we should expect the very matter of imperialism to be subjected to a similar dematerialization. The current forces of cultural domination are no longer centered in the corporeal elements most readily associated with European colonialism and Americanization. Imperialism, for example, no longer takes the form of a battalion of occupation forces coordinated by a central bureaucracy. In the information age, cultural imperialism is itself digitized and recoded in the very form and content of the electrically mediated world. Again, this revelation does not preclude the possibility of eventually developing a truly multicultural environment within the fabric of the Net. This project, however, would need to learn to take the new digital forms of cultural imperialism into account, rather than discounting them tout court as the detritus of a bygone era.

Finally, the future evolution of the internet will require not only new international standards and protocols but a self-reflective critical perspective, one which recognizes that any technological innovation or new administrative procedure will also be informed by specific ideologies and teleologies. For example, on 4 February 1997, the Internet Ad Hoc Committee (IAHC) approved the creation of seven new generic domains (.store, .firm, .web, .info, .arts, .rec and .nom), which are expected to be available sometime in the fall of 1997. These new, supposedly international designations appear to provide a means by which to address and eventually alleviate the nominal discrepency that has effectively privileged American users. The new domain names, however, reinscribe privilege, for they employ a nomenclature derived from one specific idiom—the English language. The development of new standards and protocols, therefore, do not take place in a vacuum and are never value-neutral. They are always and already informed and biased by specific socio-cultural perspectives and preconceptions, often times reiterating and reinscribing the very problem they appear to address. New technologies and administrative standards do not simply escape the complications of this system, and it would be naive to believe

otherwise. As postcolonial theory has demonstrated, there are no easy answers or solutions in this arena, only an interminable struggle that continually questions the implications of its own movement and innovation. ◆

Notes

1. Telematics is the English spelling of télématique. The word was originally coined by Simon Nora and Alain Minc in their 1978 report commissioned by French president Giscard d'Estaing, L'informatisation de la société. Nora and Minc employed this neologism to name the convergence of computer technology (informatique) with telecommunications systems. Other nominations for this new technological object include: informatics (cf. Haraway, 1991), computer mediated communication (cf. Jones, 1995 and JCMC) and new media (cf. *New Media*).
2. Similar proclamations have been disseminated in, for example, The Progress and Freedom Foundation's "Cyberspace and the American Dream: A Magna Carta for the Knowledge Age" (Dyson, Gilder, Keyworth & Toffler, 1994), Bruce Schuman's "Utopian Computer Networking" (1988), and Mitch Kapor's "Where is the Digital Highway Really Heading?—The Case for a Jeffersonian Information Policy" (1996).
3. Earlier this year, IAHC approved the creation of seven new generic domains (.store, .firm, .web, .info, .arts, .rec and .nom). An analysis of this alteration follows in the conclusion.
4. For an analysis of the mechanisms and logic of colonialism, cf. Bill Ashcroft, Gareth Griffiths and Helen Tiffin, eds. *The Postcolonial Studies Reader.* New York: Routledge, 1995.
5. The status of English as the international language of the Net has been explicitly marked, on the internet, by individuals for whom English is not the primary language: "Internet es la consagración final del inglés como idioma de intercambio entre todas las lenguas del mundo. [Internet signifies the consecration of English as the language that acts as a bridge between all the other languages in the world]" (Fernandez Hermana, 1996, p. 1). "...The universal language on Internet is English, or more exactly a vague collection of languages called 'English' because their common origin is the national language spoken in England by the English" (Korpella, 1996, p. 1). On the historical and cultural complications of international exchange languages, cf. Umberto Eco's analysis in *The Search For The Perfect Language* (Cambridge: Blackwell, 1996).

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Anne Wells Branscomb

1928–1997

Those concerned with the social impact of international computer networks, and how best to deal with that impact, will mourn the passing of Anne Wells Branscomb, the noted author and lawyer. Further information on Mrs. Branscomb's extraordinary life and works may be found at **http://www.ngi.org/AWB/.**