# BRIEF COMMUNICATION

# Language as Power on the Internet

**Madelyn Flammia**
*Department of English, University of Central Florida, Orlando, FL 32816. E-mail: flammia@pegasus.cc.ucf.edu*

**Carol Saunders**
*Department of Management Information Systems, University of Central Florida, Orlando, FL 32816.*
*E-mail: csaunders@bus.ucf.edu*

**English is typically considered not only the language of business, but also the language of the Internet. This brief communication explores the cultural implications of the power position of English as the language of the Internet and discusses the likelihood of its continued dominance.**

## Introduction

Although the number of Web sites in other languages is increasing, English is still the language of the largest group of Internet users, and dominates Web content. While none of the current approaches for estimating the percentage of Web content in any given language is free of criticism, there appears to be a consensus that English Web content represents the lion's share of Web sites (Paolillo, 2005), with estimates for English running as high as 70% of all Web content (Nelson, 2003). Because of the large base of English-speaking users and the high percentage of Web sites in English, many consider English to be the language of the Internet. In this article we argue that the use of English as the language of the Internet may subtly promote certain cultural values while suppressing others. It may also lead to "the loss of intellectual and cultural autonomy by those who are less powerful" (Altbach, 2004, p. 9).

## A Matter of Precedence

Because of the United States' leadership role in the development of the Internet, it was logical to use English initially as the language of the Internet. The Internet was originally developed as a means for the exchange of information between organizations in the American military-scientific complex, and its initial users were primarily U.S. scientists and academics. The Advanced Research Projects Agency (ARPA) was formed by the U.S. government in the late 1960s to develop ways of connecting computers in different locations, making it possible for them to exchange data. When people from other countries formed links with ARPANET, it was necessary for them to use English (Crystal, 2003).

ARPA initially only connected research centers, but in the mid-1980s the network's focus was expanded and the National Science Foundation was charged with creating a structure for an expanded network of computers that became the basis of the Internet in the United States. It was the World Wide Web with its user-friendly graphical interface that sparked the explosive growth of the Internet. Because of the economic supremacy of the United States and the Internet's historical roots, the dominance of English was reinforced when the Internet began to be used for commerce.

There were also technical reasons for the use of English as the language of the Internet, since the "first protocols devised to carry data on the Net were developed for the English alphabet" (Crystal, 2003). The Internet uses a telecommunications infrastructure that is economically dominated by U.S. companies (UNESCO, 2005). Further, the U.S. and the U.K. led the development of computers and programming in the twentieth century, and computer languages have been greatly influenced by the mother tongue of programmers. The "linguistic patterns, principal architecture, and best software" on the Internet have almost all been created by English speakers (Specter, 1996, p. 1).

TABLE 1.   Top six languages on the Internet.[a]

| Language | Internet Users by Language (Millions) | Language as Percent of Total Internet Users | Estimate for Language–World Population (Millions) |
|---|---|---|---|
| English | 323 | 29.7% | 1,126 |
| Chinese | 144 | 13.3% | 1,341 |
| Japanese | 86 | 7.9% | 128 |
| Spanish | 82 | 7.5% | 438 |
| German | 59 | 5.4% | 96 |
| French | 50 | 4.6% | 381 |
| **World** | **1,023** | **100%** | **6,500** |

[a]From http://www.internetworldstats.com/stats7.htm, November, 2006.

While the percentage of native-English-speaking Internet users has steadily decreased from a high of 80% when the Web was first established in 1993 (Pimienta, 2005), English is still the dominant language of Internet users (i.e., 323 million or 29.7% of all Internet users; see Table 1. [Internet World Stats, 2006]). English is the mother tongue of many nations, and is rapidly coming to be spoken by more people as a second tongue than as a first (Weiss, 2005). Only 16% of European Union members claim English as their mother tongue, but an additional 31% claim it as a second language (Spurdon & Carr, 2004).

Despite the large base of English speakers, even more people in the world speak Chinese than any other language (see Table 1), and the Internet usage of Chinese speakers is growing rapidly. Further, Chinese is becoming increasingly popular as a second language in countries around the globe (Graddol, 2006). Yet, when more Chinese speakers start using the Internet, English may still remain the language of the Internet due to reasons discussed below.

## Political Perspective

Designating an official language(s) is often a political decision, and may grow out of a history of cultural conflicts, colonialism, and years of enmity between peoples of different regions within a nation. At times language is used as a tool of both oppression and social mobility, or at least it is perceived as such by individuals who do not speak the language. The use of English is playing a key role in structuring inequality in developing economies (Graddol, 2006). For example, in Africa many members of the ruling classes speak English (or French), while individuals of lower socioeconomic standing speak local tongues. Individuals who only speak indigenous languages are finding themselves increasingly excluded from job markets and literate social circles. In response, English has become the preferred language of education, spurring a heated Africa-wide debate about using the mother tongue versus using English in the classroom. UNESCO is one of the strongest advocates of using the mother tongue for basic education, because doing so facilitates learning by young children (UNESCO, 2005).

Let us discuss an example from another part of the globe. When establishing both English and French as official languages, Canadian policymakers hoped that national bilingualism would preserve and strengthen national unity. However, in reality most Canadians are monolingual and the province of Quebec has declared French as its sole official language. Under Quebec's Charter of the French Language, English Web sites are illegal unless they are hosted on servers outside of Quebec (Friedman, 1999).

While an ideal vision of the Internet portrays it as a level playing field for all peoples of the world and as "a force for global unity" (Specter, 1996, p. 1), the reality is somewhat different, and not only because of technological challenges. The Internet is not free from the control of national governments, and some nations like Saudi Arabia and China censor their citizens' use of the Internet. Chinese authorities have "compelled the American Internet company Yahoo! Inc. to hand over information on Chinese users guilty only of free speech" (Bray, 2006, p. F1). Shi Tao, a Chinese journalist, was sentenced to 10 years in prison for making public a secret government memo telling newspaper editors how they should cover the 15th anniversary of the Tiananmen Square massacre. There are approximately a dozen Chinese government agencies that employ thousands of Web censors and Internet café police (Fowler, 2006).

Further, there is no truly autonomous international body that governs the Internet. It is the U.S. government that has ultimate veto power over the decisions made by the Internet Corporation for Assigned Names and Numbers (ICANN), a nonprofit, private organization that controls domain names. Though ICANN has international board members, it operates under the auspices of the U.S. Department of Commerce. Critics are concerned that ICANN is moving too slowly in forming domain names in languages such as Arabic and Chinese. They claim that the delays hinder the development of an Internet culture in countries that do not use Roman characters. For example, one critic laments, "There is no such thing as a global Internet today . . . You have only English-language Internet that is deployed internationally. How is that empowering millions of Chinese or Arab citizens?" (Rhoads, 2006).

In the realm of international business, the large percentage of European managers who speak English (i.e., 69%; Fox, 2000), not to mention the considerable number of U.S. and Canadian managers, represent an influential force in privileging English. Even in cyberspace the powerful can ensure that their message will have the best chance of being understood when they can dictate what language their audiences must speak.

## Deeper Societal Impacts

When consistently choosing the same language, either in the EU or in the global marketplace, it becomes dominant and other languages are consequently used less often. Many experts worry about the loss of linguistic and cultural diversity in cyberspace. They are also concerned that the dominance

of a "universal" language over local languages is playing an increasingly pivotal role in dividing the information "haves" from the "have-nots" (Nelson, 2003). Even if individuals have access to the Internet, obtaining and sharing information is more difficult when using a language that is poorly represented on the Internet (Paolillo, 2005). For example, the powerful search engine Google restricts its accesses to about 35 languages (Mikami et al., 2005).

Even the way that a language is represented digitally may privilege some languages over others. In particular, English is privileged since it can be represented in the 128-bit American Standard Code for Information Interchange (ASCII) code. Because of its early and widespread use, many other standard encodings are defined around ASCII. Some of these other encodings have expanded to 256 bits to accommodate characters in other languages. However, critical Internet systems such as the domain name systems (DNS), as well as popular ones such as Usenet news and Internet Relay chat, support only a subset of ASCII characters. Hence the use of ASCII creates a technical bias towards English and exacerbates the digital divide.

Language played a major role in creating a digital divide between Ethiopia and the rest of the connected world. Ethiopia was recently labeled by its own infrastructure minister as "one of the 'least-connected' countries in the world"; this lack of connection closed "the door to economic opportunity" (Heavens, 2004). One factor inhibiting wider adoption of Internet and mobile technologies is the language of Ethiopia (Amharic), one of the world's oldest, with 345 letters and letter variations—a challenge for keyboarding. To overcome the challenges presented in using Amharic and other language character sets, the Unicode Consortium has developed and is maintaining a multilingual encoding standard called Unicode. Unicode provides the basis for processing, storing, and interchanging text data in any written ancient or modern language in all modern software and information technology protocols. However, Unicode is not yet a perfect solution since not all commonly used programming languages offer standard support for Unicode, and its most basic form, Unicode UTF-32, requires four times more storage space than a comparable ASCII text (Paolillo, 2005). Unfortunately, the greater transmission, compression, and decompression costs that are a consequence of Unicode's larger size often present enough of a penalty to discourage its use in some contexts, especially monolingual ones.

Optimists who view technology as a means to unify cultures overlook the fact that no communication technologies are totally free of the influences of the culture in which they were developed. Communication technologies carry the cultural values and communication preferences of the cultures in which they originate; frequently, these values and preferences come into conflict with the indigenous Asian, Latin, and Arab cultures that receive the technology (Ess, 2004).

The Internet has been defined as a virtual country that can be understood by applying Hofstede's cultural variables, including low power distance and low uncertainty avoidance (Johnston & Johal, 1999). In cultures with low power distance, less powerful members expect and accept that power is distributed more equally throughout the organization or society. Low uncertainty avoidance means the members of a culture feel relatively less threatened by uncertain or unknown situations. It is not surprising given the demographics of Internet users that the characterization of an individualist culture with a low power distance and low uncertainty avoidance sounds very much like a description of U.S. culture, or of cultures found in such predominantly English-speaking countries as Canada, Australia, New Zealand, and the United Kingdom. Since Anglo-American cultural values of low power distance and equality are privileged in the virtual community, cultures with differing values find it challenging to adapt to the virtual, Internet culture. For example, the virtual Internet community does not privilege the cultural values of more formal, hierarchical societies such as those found in Japan and Korea. Additionally, in terms of cultural impacts, users' cultural conditioning affects their ability to adapt to new technologies (Zahedi, Van Pelt, & Song, 2001).

## Reconciling Views

Since English speakers currently predominate on the Internet, the use of English is a logical choice. However, the growing number of Chinese speakers may eventually overtake the English speakers, at which time it may seem logical for Chinese to become the language of the Internet. Yet the argument that Chinese will replace English as the dominant world language can be called into question for a number of reasons. Even though the number of people for whom English is a first language is declining, English is still the most widely spoken language in the world because it is increasingly used as an official second language in many nations. In fact, "[it] is projected that by the middle of the twenty-first century, most of the countries that have an official second language will have selected English as that language. Thus, in those countries that publish official documents in two languages, the second will probably be English; in those countries that require children to learn a foreign language, that language will be English; and in those countries that demand second-language competence as a condition of employment in the government or civil service, English will usually be that language" (Weiss, 2005, p. 5).

Further, English dominates a number of other institutions, including business, aviation, and universities (Altbach, 2004): "Scientific publications written in English represent two-thirds of all scientific publications in the world." (Prado, 2005, p. 36). English has become a global language because of "the combined effect of American economic and military power" (Weiss, 2005, p. 6). Also, as long as English is viewed as the language of "empowerment" its continued dominance will be ensured. Clearly, the emphasis on English as a second language of choice reinforces the notion that it is a language of empowerment.

Yet we may detect counterforces currently in effect. Global institutions, such as UNESCO, continue to fight for

governmental policies that favor the use of local languages to preserve cultural diversity. UNESCO "unambiguously favors the provision of equal access to digital information" (Paolillo, 2005, p. 45). Its lines of action include encouraging digital literacy, promoting linguistic diversity in cyberspace, and working with the United Nations to help developing countries master new technologies (Paolillo). Consequently, more Web sites are likely to be written in local languages and designed to reflect diverse cultures. This may be the case whether English or Chinese is the dominant language. Additionally, for very popular Internet applications such as e-mail, people in most cases are using the language of their choice, which in many cases is not English. The task of building Web sites and communicating in local languages using Internet applications should be made easier through the multilingual standardization effort undertaken by the Unicode Consortium in cooperation with the International Standards Organization (ISO).

Further, political groups may increasingly use the Internet to promote local interests and politics (Main, 2002). For example, China has directly confronted ICANN by creating three domain names in Chinese characters: .gongsi (.com), .wangluo (.net), and .zhongguo (China) (Rhoads, 2006). ICANN's response includes efforts to establish Internationalized Domain Names (IDNs) to benefit millions of people whose languages do not rely on Roman characters (ICANN, 2006).

With strong forces militating for the use of local languages, there is less likelihood of a "universal" language of the Internet, and the effect of a dominating language is assuaged (Ornager, 2003). In fact, Richard Watts, linguistics professor at Bern University, suggests that those who speak only English are likely to be at a disadvantage as more multilingual speakers will have access to Web sites in their native languages and in English, while English-only speakers will not have access to the new Web content (Nelson, 2003).

However, despite the increased localization of languages on the Internet and the decreasing influence of the United States, there are still a significant number of English-speaking users of the Internet outside the United States, including people in the more than 60 countries that have chosen English as their official language. While history has shown us that the prominence of international languages is tied to the economic and military power of the nations who speak the languages, the dominance of English is tied to much more than the dominance or decline of the United States as a world power. The unique situation today is that English is spoken by more people as a second language than it is as a first language. English is one of the major languages of India, the second most populous country in the world after China. Linguistic scholar David Crystal argues that the spread of English around the world has reached a critical mass, and that English in some form "will find itself in the service of the world community forever" (Crystal, 2003, p. 191) While Crystal's prediction about English's unending service is unlikely to come true, it is also unlikely that English will be replaced as the primary language of the Internet in the foreseeable future.

## Acknowledgments

## References

Altbach, P.G. (2004). Globalization and the university: Myths and realities in an unequal world. Tertiary Education and Management, 10(1), 3–25. Retrieved January 9, 2006, from http://www.springerlink.com/content/q1374253073t4l83/

Bray, H. (2006, February 15). U.S. to protest censorship of Internet by Beijing. The Boston Globe, p. F1.

Crystal, D. (2003). English as a global language. (2nd ed.) Cambridge, UK: Cambridge University Press.

Ess, C. (2004). Moral imperatives for life in an intercultural global village. In R. Cavalier (Ed.), The Internet and our moral lives (pp. 161–193). Albany: State University of New York Press.

Fowler, G.A. (2006, February 13). Chinese Internet censors face "hacktivists" in U.S. The Wall Street Journal, p. A1.

Fox, J. (2000, September 18). The triumph of English. Fortune, 142, 209.

Friedman, M. (1999). Regular mess one sure sign of silly season. Computing Canada, 25, 25–26.

Graddol, D. (2006). English Next. Retrieved November 10, 2006, from the British Council Web site: http://www.britishcouncil.org/learning-research-english-next.pdf

Heavens, A. (2004, November 5). Progress in an ancient tongue. Wired News. Retrieved January 9, 2006, from http://wired.com/news/print/0,1294,65596,00.html

ICANN (2006, November 1). Internationalised domain names roadmap: Progress and future. Retrieved January 7, 2006, from http://www.icann.org/announcements/announcement-1-01nov06.htm

Internet World Stats. (2005). Internet world users by language. Retrieved January 7, 2006, from http://www.internetworldstats.com/stats7.htm

Johnston, K., & Johal, P. (1999). The Internet as a "virtual cultural region": Are extant cultural classification schemes appropriate? Internet Research, 9(3), 178–186.

Main, L. (2002). Building Websites for a multinational audience. Lanham, MD: The Scarecros Press, Inc.

Mikami, Y., Bakar, A.Z.A., Sonlertlamvanich, V., Vikas, O., Zavarsky, P., Rozan, M.Z.A., et al. (2005). Language diversity on the internet: An Asian view. In UNESCO Institute for Statistics (Ed.), Measuring linguistic diversity on the Internet (pp. 91–103). Paris: UNESCO.

Nelson, A. (2003). Language gap threatens access to information. Retrieved January 7, 2006, from swissinfo Web site: http://www.swissinfo.org/eng/swissinfo.html? siteSect=881&sid=4468444

Ornager, S. (2003). The information society in Asia and the question of cultural diversity. Paper presented at the World Summit on the Information Society. Retrieved January 7, 2006, from http://www.wsisasia.org/materials/susanne.doc

Paolillo, J. (2005). Language diversity on the internet: Examining linguistic bias. In UNESCO Institute for Statistics (Ed.), Measuring linguistic diversity on the Internet (pp. 43–89). Paris: UNESCO.

Pimienta, D. (2005). Linguistic diversity in cyberspace: Models for development and measurement. In UNESCO Institute for Statistics (Ed.), Measuring linguistic diversity on the Internet (pp. 13–34). Paris: UNESCO.

Prado, D. (2005). Political and legal context. In UNESCO Institute for Statistics (Ed.), Measuring Linguistic Diversity on the Internet (pp. 35–41). Paris: UNESCO.

Rhoads, C. (2006). Retrieved March 15, 2006, from Dot IRL Web site: http://www.dotirl. com/content/view/3

Specter, M. (1996, April 14). Computer Speak; World, Wide, Web: 3 English words. The New York Times, Section 4, p. 1.

Spurdon, S., & Carr, R. (2004). The big debate: Should English be the official language of the EU? easyJet InFlight. Retrieved May 14, 2004, from http://easyjetinflight.com/features/2004/mar/debate.html

UNESCO Institute for Statistics. (2005). Measuring linguistic diversity on the Internet. Paris: UNESCO.

Weiss, E.H. (2005). The elements of international English style. Armonk, NY: M.E. Sharpe.

Zahedi, F.M., Van Pelt, W.V., & Song, J. (2001). A conceptual framework for international Web design. IEEE Transactions on Professional Communication, 44(2), 83–103.