



What global language ?

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Abstract:

English isn't managing to sweep all else before it, and even if it ever does become the universal language, many of those who speak it won't understand one another. Much is made of the Internet as an instrument for circulating English around the globe. However, Internet traffic in other languages will soon outstrip English-language traffic.

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[Headnote]

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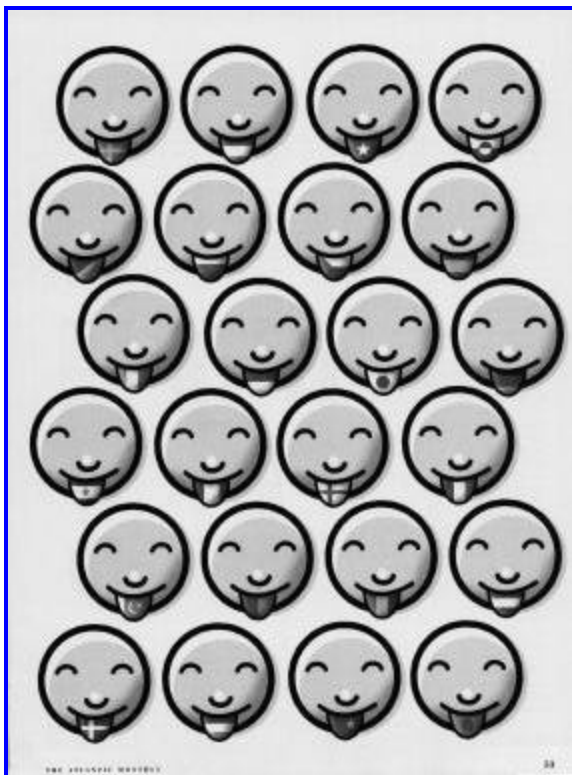
BECAUSE I am interested in what happens to the English language, over the past year or so I've been asking people, at dinner parties and professional gatherings and so on, whether they think that English is well on its way to being the global language. Typically, they look puzzled about why I would even bother to ask such an obvious question. They say firmly, Of course. Then they start talking about the Internet. We're just having a conversation, so I refrain from launching into everything I'm about to tell you. It's not that I believe they're actually wrong. But the idea of English as a global language doesn't mean what they think it does-at least, not according to people I've interviewed whose professions are bound up especially closely in what happens to the English language.

English has inarguably achieved some sort of global status. Whenever we turn on the news to find out what's happening in East Asia, or the Balkans, or Africa, or South America, or practically anyplace, local people are being interviewed and telling us about it in English. This past April the journalist Ted Anthony, in one of two articles about global English that he wrote for the Associated Press, observed, "When Pope John Paul II arrived in the Middle East last month to retrace Christ's footsteps and addressed Christians, Muslims and Jews, the pontiff spoke not Latin, not Arabic, not Hebrew, not his native Polish. He spoke in English."

Indeed, by now lists of facts about the amazing reach of our language may have begun to sound awfully familiar. Have we heard these particular facts before, or only others like them?

English is the working language of the Asian trade group ASEAN. It is the de facto working language of 98 percent of German research physicists and 83 percent of German research chemists. It is the official language of the European Central Bank, even though the bank is in Frankfurt and neither Britain nor any other predominantly English-speaking country is a member of the European Monetary Union. It is the language in which black parents in South Africa overwhelmingly wish their children to be educated. This little list of facts comes from British sources: a report, *The Future of English?*, and a follow-up newsletter that David Graddol, a language researcher at The Open University, and his consulting firm, The English Company U.K., wrote in 1997 and 1998 for the British Council, whose mission is to promote British culture worldwide; and *English as a Global Language* (1997), a book by David Crystal, who is a professor at the University of Wales.

And yet, of course, English is not sweeping all before it, not even in the United States. According to the U. S. Bureau of the Census, ten years ago about one in seven people in this country spoke a language other than English at home-and since then the proportion of immigrants in the population has grown and grown. Ever-wider swaths of Florida, California, and the Southwest are heavily Spanish-speaking. Hispanic people make up 30 percent of the population of New York City, and a television station there that is affiliated with a Spanish-language network has been known to draw a larger daily audience than at least one of the city's English-language network affiliates. Even Sioux City, Iowa, now has a Spanish-language newspaper. According to the census, from 1980 to 1990 the number of Spanish-speakers in the United States grew by 50 percent.


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Over the same decade the number of speakers of Chinese in the United States grew by 98 percent. Today approximately 2.4 million Chinese-speakers live in America, and more than four out of five of them prefer to speak Chinese at home. The rate of growth of certain other languages in the United States has been higher still. From 1980 to 1990 the number of speakers of Korean increased by 127 percent and of speakers of Vietnamese by 150 percent. Small American towns from Huntsville, Alabama, to Meriden, Connecticut, to Wausau, Wisconsin, to El Cenizo, Texas-all sites of linguistic controversy in recent years-have been alarmed to find that many new arrivals do not speak English well and some may not even see the point of going to the trouble of learning it.

How can all of this, simultaneously, be true? How can it be that English is conquering the globe if it can't even hold its own in parts of our traditionally English-speaking country?

A perhaps less familiar paradox is that the typical English-speaker's experience of the language is becoming increasingly simplified, even as English as a whole grows more complex. If these two trends are occurring, and they are, then the globalization of English will never deliver the tantalizing result we might hope for: that is, we monolingual English-speakers may never be able to communicate fluently with everyone everywhere. If we want to exchange anything beyond rudimentary messages with many of our future fellow English-speakers, we may well need help from something other than English.

The evidence strongly suggests that the range of realistic hopes and fears about the English language is narrower than some may suppose. Much discussion of what is likely to happen to English is colored, sometimes luridly, by what people dread or desire-for their children, their neighborhoods, their nations, their world. Human aspirations, of course, have a great deal to do with what comes to pass. And language is very much tied up with aspirations.

Last fall I visited David Graddol at The English Company's headquarters, in Milton Keynes, England. Graddol has a rumpled appearance somewhat at odds with the crisp publications, replete with graphs and pie charts and executive summaries, for which he is responsible. Similarly, the appearance of The English Company's offices, located in the ground-floor flat of a Victorian house and sparsely furnished with good Arts and Crafts antiques together with some flea-market stuff, is amiably out of keeping with the sophisticated, high-tech nature of the consultancy's work. Stuck on the wall above the stove, in the kitchen, were four clocks, each captioned with a big letter hand-drawn on a piece of paper: M, K, M, A. This was to help the staff remember what time it was in Malaysia, Kazakhstan, Mozambique, and Argentina, the four sites where officials and advisers on how to teach English throughout those countries were taking part in an online seminar moderated by The English Company.

"The main message," Graddol told me, "is that the globalization of English isn't going to happen the way people expect it to." He ticked off a dizzying array of eventualities that could transform the world language picture: political alliances that have yet to be formed; the probable rise of regional trading blocs, in such places as Asia; the Arab world, and Latin America, in which the United States and other primarily English-speaking countries will be little involved; the possibility that world-changing technological innovations will arise out of nations where English is little spoken; a backlash against American values and culture in the Middle East or Asia; or the triumph of our values and culture in those places.

To understand the fundamental paradoxes of global English, though, we should focus on two realms of possibility: demographics and technology-yes, the Internet, but much else that's technological besides.

First, Second, or Foreign Language

PEOPLE who expect English to triumph over all other languages are sometimes surprised to learn that the world today holds three times as many native speakers of Chinese as native speakers of English. "Chinese," as language scholars use the word, refers to a family of languages and dialects the most widely spoken of which is Mandarin, and which share a written language although they are not all mutually intelligible when spoken. "English" refers to a family of languages and dialects the most widely spoken of which is standard American English, and which have a common origin in England-though not all varieties of English, either, are mutually intelligible. The versions of English used by educated speakers practically anywhere can be understood by most Americans, but pidgins, creoles, and diverse dialects belong to the same family, and these are not always so generally intelligible. To hear for yourself how far English now ranges from what we Americans are used to, you need only rent a video of the 1998 Scottish film *My Name Is Joe*, which, though in English, comes fully subtitled.

"Native speaker" is no easier to define with any precision than "Chinese" or "English," although it means roughly what you'd think: a person who grew up using the language as his or her first. In terms of how demographic patterns of language use are changing, native speakers are not where the action is. And the difference between native speakers and second- or foreign-language speakers is an important one subjectively as well as demographically. The subjective distinction I mean will be painfully familiar to anyone who, like me, spent years in school studying a foreign language and is now barely able to summon enough of it to order dinner in a restaurant.

In any case, the numerical gap is impressive: about 1,113 million people speak Chinese as their mother tongue, whereas about 372 million speak English. And yet English is still the world's second most common native language, though it is likely to cede second place within fifty years to the South Asian linguistic group whose leading members are Hindi and Urdu. In 2050, according to a model of language use that The English Company developed and named "engco" after itself, the world will hold 1,384 million native speakers of Chinese, 556 million of Hindi and Urdu, and 508 million of English. As native languages Spanish and Arabic will be almost as common as English, with 486 million and 482 million speakers respectively. And among young people aged fifteen to twentyfour English is expected to be in fourth place, behind not only Chinese and the Hindi-Urdu languages but also Arabic, and just ahead of Spanish.

Certainly, projections of all kinds perch atop teetering stacks of assumptions, But assuming that the tallies of native languages in use today are roughly accurate, the footing for projections of who will speak what as a first language fifty years from now is relatively sturdy. That's because many of the people who will be alive in fifty years are alive now; a majority of the parents of people who will be here then are already here; and most people's first language is, of course, the first language of their parents.

Prod at this last idea, to see how it takes into account such things as immigration and bilingual or multilingual places, and you'll find that it is not rock-solid. By David Crystal's estimate, for example, two thirds of the world's children grow up in bilingual environments and develop competence in two languages -so it is an open question what the native language of a good many of those children is. Then, too, a range of population projections exists, and demographers keep tinkering with them all.

But it's undeniable that English-speakers now have lower birth rates, on average, than speakers of Hindi and Urdu and Arabic and Spanish. And the countries where these other languages are spoken are, generally, less well developed than native-English-speaking countries. In 1996, according to United Nations statistics, 21 percent of males and 38 percent of females in "less developed regions" were illiterate in every language, as were 41 and 62 percent in the "least developed countries." Nonetheless, the gains that everyone expects English to make must come because it is adopted as a second language or a foreign language by most of the people who speak it. According to "The Decline of the Native Speaker," a paper David Graddol published last year in the *AILA Review* (AILA is the French acronym for the International Association of Applied Linguistics; the review belongs to the minority of international scholarly journals that still make use of another language in addition to English), the proportion of native English-speakers in the world population can be expected to shrink over the century 1950-2050 from more than eight to less than five percent.

A few more definitions will be helpful here. "Second-language" speakers live in places where English has some sort of official or special status. In India, for instance, the national government sanctions the use of English for its business, along with fifteen indigenous languages. What proportion of India's population of a billion speaks English is hotly debated, but most sources agree it is well under five percent. All the same, India is thought to have the fourth largest population of English-speakers in the world, after the United States, the United Kingdom, and Nigeria -or the third largest if you discount speakers of Nigerian pidgin English. English is a second language for virtually everyone in India who speaks it. And obviously the United States, too, contains speakers of English as a second language-some 30 million of them in 1995, according to an estimate by David Crystal.

"Foreign-language" speakers of English live in places where English is not singled out in any formal way, and tend to learn it to communicate with people from elsewhere. Examples might be Japanese who travel abroad on business and Italians who work in tourism in their own country. The distinction between the two categories of non-native speakers is sometimes blurry. In Denmark and Sweden the overwhelming majority of children are taught English in school-does that constitute a special status?

The distinction between categories of speakers matters, in part because where English is a first or second language it develops local standards and norms. India, for instance, publishes dictionaries of Indian English, whereas Denmark and Sweden tend to defer to Britain or the United States in setting standards of English pronunciation and usage. The distinction also matters in relation to how entrenched English is in a given place, and how easy that place would find it to abandon the language.

One more surprise is how speculative any estimate of the use of English as a second or a foreign language must necessarily be. How large an English vocabulary and how great a command of English grammar does a person need in order to be considered an English-speaker? Generally, even the most rigorous attempts to determine how many people speak what, including the U.S. Census, depend on self-reporting. Do those years of French in high school and college entitle us to declare ourselves bilingual? They do if we want them to. Language researchers readily admit that their statistics on second- and foreign-language use are, as Graddol put it in "The Decline of the Native Speaker," "educated guesswork."

David Crystal, in his *Cambridge Encyclopedia of the English Language* (1995), observed that only 98 million secondlanguage speakers of English in the world could be totted up with certainty. In *English as a Global Language*, though, he argued that the true number was more nearly 350 million. Graddol put forward a variety of estimates in "The Decline of the Native Speaker," including Crystal's, and explained why each had its proponents. According to the most expansive of them, the number of second-language speakers was 518 million in 1995. From 98 million to 518 million is quite a range.

Estimates of the number of foreign-language speakers of English range more widely still. Crystal reports that these "have been as low as 100 million and as high as 1,000 million." The estimates would vary, because by definition foreign-language speakers live in places where English has no official or special status. They may or may not have been asked in a national census or other poll about their competence in English or other languages; they may or may not have had any formal schooling in English; their assessment of their ability to speak English may or may not be accurate.

This last point is particularly worth bearing in mind. According to recent "Eurobarometer" surveys described by Graddol, "77% of Danish adults and 75% of Swedish adults for example, say they can take part in a conversation in English." And "nearly one third of the citizens of the 13 'non English-speaking' countries in the EU 'can speak English well enough to take part in a conversation.'" However, Richard Parker, in his book *Mixed Signals: The Prospects for Global Television News* (1995), reported this about a study commissioned by Lintas, a major media buyer, in the early 1990s:

When ad researchers recently tested 4,500 Europeans for "perceived" versus "actual" English-language skills, the results were discouraging. First, the interviewees were asked to evaluate their English-language abilities, and then to translate a

series of sample English phrases or sentences. The study produced, in its own words, "sobering" results: "the number of people really fit for English-language television turned out to be less than half the expected audience." In countries such as France, Spain, and Italy, the study found, fewer than 3 percent had excellent command of English; only in small markets, such as Scandinavia and the Low Countries did the numbers even exceed 10 percent.

So the number of people in the world who speak English is unknown, and how well many of them speak and understand it is questionable. No one is arguing that English is not widely spoken and taught. But the vast numbers that are often repeated—a billion English-speakers, a billion and a half—have only tenuous grounding in reality.

I have never seen any tables or charts that rank languages according to the proportions of the world's population expected to be using them as second or foreign languages ten or fifty years from now. The subject is just too hypothetical, the range of variables too great. Consider, for instance, the side effects that the breakup of the Soviet Union has had on the use of the Russian language. Now that no central authority seeks to impose Russian on schoolchildren throughout the Soviet bloc, few countries besides Russia itself require students to learn it, and for the most part the language is less and less used. However, in places including the Caucasus, Russian continues to be valued as a lingua franca, and fluency in it remains a hallmark of an educated person.

Consider, too, the slender thread by which Canada's linguistic fate hung not long ago. In November of 1995 Quebec held a referendum to determine whether most of its citizens were in favor of independence. If 27,000 of the 4.65 million Quebecers who voted had cast their ballots for secession rather than against, by now Canada's entire population of some 30 million people, all of them in theory bilingual, might conceivably be on the way to being largely monolingual—the nation of Quebec in French and what remained of Canada in English.

In the United States, discounting the claims that antagonists make about the other side's position, it's hard to find anyone who doesn't think it would be nice if everyone in the United States spoke English. Virtually all the impassioned debate is about whose resources should be devoted to making this happen and whether people should be encouraged to speak or discouraged from speaking other languages, too. All kinds of things have the potential to change the rate at which English as a second language is learned in the United States. Suppose that nationwide, English lessons were available free (as they already are in some parts of the country) and that employers offered workers, and schools offered parents, incentives to take them. Who can say what effect this would have?

Patterns of learning foreign languages are more volatile still. When I visited David Graddol, last fall, The English Company was reviewing materials the Chinese government had created to be used by 400,000 Chinese instructors in teaching English to millions of their compatriots. Maybe this was a step in an inexorable process of globalization—or maybe it wasn't. Plans to teach English widely in China might change if relations between our two countries took a disastrous turn. Or the tipping point could be something completely undramatic, such as the emergence of an array of Chinese-language Web sites. The information-technology expert Michael Dertouzos told me not long ago that at a conference he had attended in Taipei, the Chinese were grumbling about having to use English to take advantage of the Internet's riches.

Several Languages Called English

MUCH of what will happen to English we can only speculate about. But let's pursue an idea that language researchers regard as fairly well grounded: native speakers of English are already outnumbered by second-language and foreign-language speakers, and will be more heavily outnumbered as time goes on.

One obvious implication is that some proportion of the people using English for business or professional purposes around the world aren't and needn't be fluent in it. Recently I talked with Michael Henry Heim, a professor of Slavic literatures at the University of California at Los Angeles and a professional translator who has rendered into English major works by Milan Kundera and Gunter Grass. By his count, he speaks "ten or so" languages. He told me flatly, "English is much easier to learn poorly and to communicate in poorly than any other language. I'm sure that if Hungary were the leader of the world, Hungarian would not be the world language. To communicate on a day-to-day basis—to order a meal, to book a room—there's no language as simple as English."

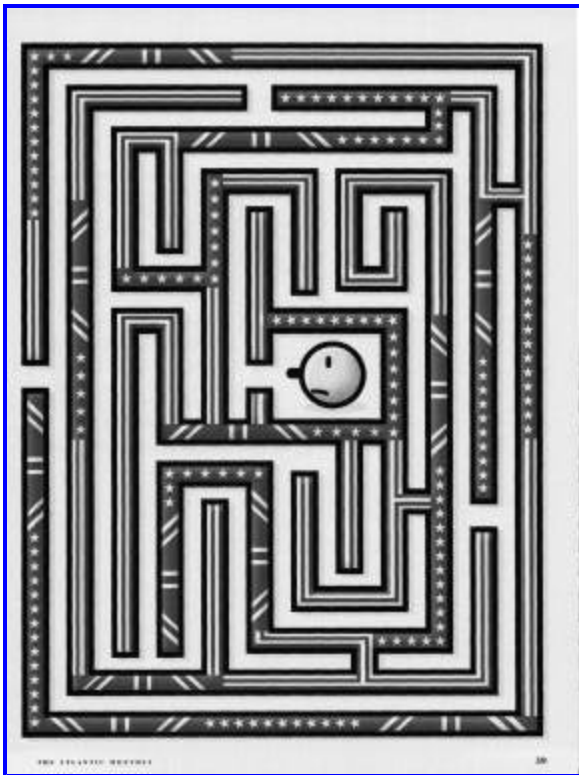
Research, though, suggests that people are likely to find a language easier or harder to learn according to how similar it is to their native tongue, in terms of things like word order, grammatical structure, and cognate words. As the researcher Terence Odlin noted in his book *Language Transfer* (1989), the duration of full-time intensive courses given to English-speaking U.S. foreign-service personnel amounts to a rough measurement of how different, in these ways, other languages are from English. Today the courses for foreign-service employees who need to learn German, Italian, French, Spanish, or Portuguese last twenty-four weeks. Those for employees learning Swahili, Indonesian, or Malay last thirty-six weeks, and for people

learning languages including Hindi, Urdu, Russian, and Hungarian, forty-four weeks. Arabic, Chinese, Japanese, and Korean take eighty-eight weeks. Note that all the world's other commonest native languages except Spanish are in the groups most demanding of English-speakers. It might be reasonable to suppose that the reverse is also true-that Arabic- and Chinese-speakers find fluency in English to be more of a challenge than Spanish-speakers do.

A variety of restricted subsets of English have been developed to meet the needs of nonfluent speakers. Among these is Special English, which the Voice of America began using in its broadcasts experimentally some forty years ago and has employed part-time ever since. Special English has a basic vocabulary of just 1,500 words (The American Heritage Dictionary contains some 200,000 words, and the Oxford English Dictionary nearly 750,000), though sometimes these words are used to define non-Special English words that VOA writers deem essential to a given story. Currently VOA uses Special English for news and features that are broadcast a half hour at a time, six times a day, seven days a week, to millions of listeners worldwide.

But restricted forms of English are usually intended for professional communities. Among the best known of these is Seaspeak, which ships' pilots around the world have used for the past dozen years or so; this is now being supplanted by SMCP, or "Standard Marine Communication Phrases," which is also derived from English but was developed by native speakers of a variety of languages. Airplane pilots and airtraffic controllers use a restricted form of English called Airspeak.

Certainly, the world's ships and airplanes are safer if those who guide them have some language in common, and restricted forms of English have no modern-day rivals for this role. The greatest danger language now seems to pose to navigation and aviation is that some pilots learn only enough English to describe routine situations, and find themselves at a loss when anything out of the ordinary happens.



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Something else obviously implied by the ascendance of English as a second and a foreign language is that more and more people who speak English speak another language at least as well, and probably better. India may have the third or fourth largest number of English-speakers in the world, but English is thought to be the mother tongue of much less than one percent of the population. This is bound to affect the way the language is used locally. Browsing some Englishlanguage Web sites from India recently, I seldom had trouble understanding what was meant. I did, however, time and again come across unfamiliar words borrowed from Hindi or another indigenous Indian language. On the site called India World the buttons that a user could click on to call up various types of information were labeled "samachar: Personalised News," "dhan: Investing in India," "khoj: Search India," "khel: Indian Cricket," and so forth. When I turned to the Afternoon Despatch & Courier of Bombay (some of whose residents call it Mumbai) and called up a gossipy piece about the romantic prospects of the son of Rajiv and Sonia Gandhi, I read, "Sources disclose that before Rahul Gandhi left for London, some kind of a 'swayamvar' was enacted at 10, Janpath with family friend Captain Satish Sharma drawing up a short list of suitable brides from affluent, well-known connected families of Uttar Pradesh."

Of course, English is renowned for its ability to absorb elements from other languages. As ever more local and national communities use English, though, they will pull language in ever more directions. Few in the world will care to look as far afield as the United States or Britain for their standards of proper English. After all, we long ago gave up looking to England—as did Indians and also Canadians, South Africans, Australians, and New Zealanders, among others. Today each of these national groups is proud to have its own idioms, and dictionaries to define them.

Most of the world's English-speaking communities can still understand one another well-though not, perhaps, perfectly. As Anne Soukhanov, a word columnist for this magazine and the American editor of the Encarta World English Dictionary, explained in an article titled "The King's English It Ain't," published on the Internet last year, "Some English words mean very different things, depending on your country. In South Asia, a hotel is a restaurant, but in Australia, a hotel is an establishment selling alcoholic beverages. In South Africa, a robot is a traffic light."

David Graddol told me about visiting China to consult on another English-curriculum project (one that had to do with teaching engineers in the steel industry) and finding a university that had chosen a Belgian company to develop lessons for it. When Graddol asked those in charge why they'd selected Belgians, of all people, to teach them English, they explained they saw it as an advantage that the Belgians, like the Chinese, are not native speakers. The Belgians, they reasoned, would be likely to have a feel both for the intricacies of learning the language in adulthood and for using it to communicate with other non-native speakers.

But by now we have strayed far beyond the relationship between demographics and the use of English. Technology has much to teach us too.

The Web in My Own Language

WHEN the conversations I have with friends and acquaintances about the future of English veer immediately toward technology—especially the Internet—it's understandable. Much has been made of the Internet as an instrument for circulating English around the globe. According to one estimate that has been widely repeated over the past few years, 80 percent of what's available on the Internet is in English. Some observers, however, have recently been warning that this may have been the high-water mark. It's not that English-speakers are logging off—au contraire—but that other people are increasingly logging on, to search out or create content in their own languages. As the newsletter that The English Company prepared for the British Council asserted in September of 1998, "Non English speakers are the fastest growing group of new Internet users." The consensus among those who study these things is that Internet traffic in languages other than English will outstrip English-language traffic within the next few years.

There's no reason this should surprise us-particularly if we recall that there are about 372 million people in the world whose native language is English and about 5,700 million people whose native language is something else. According to the same newsletter, a recent study by Euro Marketing Associates estimated that

nearly 44% of the world's online population now speak a language other than English at home. Although many of these Internet users are bilingual and speak English in the workplace, Euro Marketing suggest that advertisers of nonbusiness products will more easily reach this group by using their home language. Of the 56 million people who speak languages on the Internet other than English, Spanish speakers represent nearly a quarter.

The study also estimated that 13.1 percent of all Internet users speak an Asian language at home-Japanese, for the most part. A surge in Internet use like the one that began in the United States half a dozen or so years ago is now under way in a number of other populous and relatively well-off places.

As has been widely noted, the Internet, besides being a convenient vehicle for reaching mass audiences such as, say, the citizenry of Japan or Argentina, is also well suited to bringing together the members of small groups-for example, middle-class French-speaking sub-Saharan Africans. Or a group might be those who speak a less common language: the numbers of Dutch-speakers and Finnish-speakers on the Internet are sharply up.

The Internet is capable of helping immigrants everywhere to remain proficient in their first language and also to stay current with what is going on back home. Residents in the Basque communities of Nevada and emigres from the Cote d'Ivoire, for instance, can browse the periodicals, and even listen to the radio stations, of their homelands-much as American expatriates anywhere with an Internet connection can check the Web sites for CNN, ABC, MSNBC, and their hometown papers and radio stations.

No matter how much English-language material there is on the Web, then, or even how much more English material there is than material in other languages, it is naive to assume that home computers around the world will, in effect, become the work stations of a vast English language lab. People could use their computers that way-just as we English-speaking Americans could enlist our computers to help us learn Italian, Korean, or Yoruba. But, the glories of learning for its own sake aside, why would we want to do that? Aren't we delighted to be able to gather information, shop, do business, and be entertained in our own language? Why wouldn't others feel the same way? Consider, too, that many people regard high technology as something very much like a new language.

Surely it's enough for a person to try to keep his or her hardware and software more or less up-to-date and running smoothly without simultaneously having to grapple with instructions or content in an actual foreign language.

Studies of global satellite television-a realm that is several years more mature than the Internet-also point to the idea that most people like new technology better when it speaks their own language. As Richard Parker wrote in *Mixed Signals*,

Satellites can deliver programming and advertising instantaneously and simultaneously across the more than two dozen languages spoken in Western Europe, but the viewers-as repeated market research shows-want their television delivered in local tongues. Contrary to a history in which both motion pictures and early television broadcasts relied heavily on dubbing of foreign (often US.) programming, an affluent and culturally confident Europe now appears to be more linguistically divided than ever before.

Parker distinguishes between the "technologically feasible supply" of foreign programming and the "economically viable demand" for it, warning that we should be careful not to confuse the two. A few years ago, for example, Sweden aired a "reality-based" TV series, *Expedition: Robinson* (the word expedition has entered Swedish from English), and it quickly became a national obsession. But its success did not inspire American television networks to import the series; rather, they developed new shows, such as *Big Brother* and *Survivor*.

English by Accident

AT one point in my conversation with David Graddol, he made a little sketch of something for me on a proof of his article "The Decline of the Native Speaker." The sketch was meant to remind me that technology has begun to blur the distinctions between languages in intriguing ways-- and to suggest how those ways are themselves starting to overlap. Both the Internet and a range of technological applications only distantly related to it, he wanted me to see, are poised to expand what we are able to do with English.

Graddol uncapped his pen and drew a box in the broad white top margin of the page. "Text to text MT," he wrote in the box, and he said, "Of course you know about machine-translation systems," tapping the box to indicate that it was to represent them. Yes, I did: in fact, TheAtlantic published an article about machine translation not long ago (see "Lost in Translation," by Stephen Budiansky, in the December, 1998, issue).

As the article explained, there are translation programs-- AltaVista's Babel Fish among them--available for use free on the Internet. Type some English into the appropriate space on the Babel Fish Web page, or cut and paste it from another source, and choose your "destination" language--French, Portuguese, Spanish, Italian, or German. Presto! Up will pop a not entirely accurate translation of your chosen text. Or you can do this in reverse, from one of those languages--or Russian (the English-to-Russian feature is still in the works)-- into English. Some professional translators use machine-- translation systems as time-savers, getting the things to hack out rough texts they can then refine.

To the left of his machine-translation box Graddol drew a second box, which he labeled "Speech to text." He tapped it and said, "And you know about the voice-recognition systems that turn spoken words into written words." Yes, those, too. As it happens, I am the proud owner of a Dragon Systems program. Current versions of that and several other voice-recognition programs are reported to render speech into writing with 98 percent accuracy--not a rate that detail-oriented people are likely to find reassuring (getting two words wrong per hundred can add up), but certainly a rate that allows a user to get a point across.

Speech-to-text systems are now available for a variety of languages. Lernout & Hauspie, an industry leader that recently bought both Dragon Systems and Kurzweil Education Systems, sells products for turning British speech, as well as American, into writing, and also ones for German, Dutch, Spanish, French, Mandarin, and Cantonese.

Graddol drew a third box in the margin to the right, and labeled this box "Text to speech." He said, "And there are also machines that turn written words into spoken words." The Kurzweil reading machine, created to help the blind and visually impaired, and now capable of reading aloud in more than fifty languages, is the most advanced example in use. Simpler machines that turn computer code rather than text into speech are of course commonplace by now. We sometimes hear them when we call 411 and ask for a phone number; we hear them when we're refilling a prescription over the phone and a synthesized voice confirms our prescription number and name; we hear them on airlines' flight-information phone lines. These machines may have a vocabulary as elementary as numbers, the days of the week, and "A.M." and "P.M." But they get the job done, and they hint at how more-complex systems might work.

Now Graddol drew lines from one box to the next. "People are starting to work on connecting all the parts," he said. "Once that happens, a lot of things will be possible."

I could, for example, speak into the microphone that came with my Dragon Systems program and have that program render what I've said in writing; instruct one of the translation programs to turn the text into French; and then use Lernout & Hauspie's French-language speech synthesizer to pronounce the computer's translation. This may strike some as a ponderous process, but surely it would be less complicated than acquiring a creditable French accent the old-fashioned way. Then, too, speech-to-writing and writing-to-speech programs may materialize on the Internet, much as the translation programs have done. In that case I will simply talk into the microphone, miraculous high-tech things will happen somewhere in the ether, and voila! the computer at the restaurant L'Ami Louis, in Paris, will make my request for a reservation known to the staff, in exquisitely correct spoken or written French, and the maitre d', unwitting, will assign me a good table.

That's the theory, anyway. I have my doubts about how exquisite the actual results will be for quite some time. The interchanging of speech with writing, writing with speech, and English with other languages may, however, yield serviceable results very soon. According to a compilation of funny signs spotted around the world, published by the Far Eastern Economic Review, a Paris dress shop once advertised "Dresses for street walking," and a notice in a hotel elevator in the same city advised, "Please leave your values at the front desk." If we can understand the intention of these signs--as of course we can--then surely we will be able to see beyond most of the peculiarities resulting from machines' involvement in language. David Graddol's neat little boxes glossed over myriad difficulties inherent in each step of linguistic interchangeability. But each of these steps is already being accomplished approximately, and implemented not just in experimental settings but in real life.

Even as software developers continue to adapt computers to our linguistic needs and wants, we are--God help us-- adapting our own language to computers. For example, if I want to see the Amazon.com page about the psycholinguist Steven Pinker's book *Words and Rules* (1999), it's a complete waste of time to type into the search feature "Words and Rules, by Steven Pinker," correctly capitalized and punctuated. The computer and I will get exactly as much out of the exchange if I type "pinker rules." In effect, in this context "pinker rules" is better English than "Words and Rules, by Steven Pinker."

Where computers' processing ability and our intelligence will eventually converge is anyone's guess. As we teach ourselves, for instance, to speak in a way that will make our voice-recognition systems as productive as possible, developers are tweaking the new versions of them so that if the system misinterprets a word and we need to revise what it writes, the change will be incorporated into its database and it will never make the same mistake again.

Does this matter to the future of English? It may well. What is English, anyway? Is it the list of words and their meanings that a dictionary provides, together with all the rules about how to combine the words into sentences and paragraphs? Much more is involved than that. English is a system of communication, and highly germane to it is what or who speakers of English care to communicate with, and about what. The more we need to use English to communicate with machines-- or with people whose fluency is limited or whose understanding of English does not coincide with ours--the more simplified the language will need to be.

And yet technology is expanding English, by requiring us to come up with new words to describe all the possibilities it offers. Throughout the past century, according to *Twentieth Century Words* (1999), by John Ayto, technological domains--at first the likes of cars and aviation and radio, and eventually nuclear power, space, computers, and the Internet--were among the leading "lexical growth-areas." What's new of late isn't only words: we have whole new ways of combining the elements of written language. One ready example is emoticons (such as :> and ;-o), which seem to have firmly established themselves in the realm of e-mail. Is *www* a word? Does one write the expression *dot com* or *.com* or what? And then there's professional jargon. In the course of exchanging ideas, global communities of astrophysicists, cardiologists, chip designers, food scientists, and systems analysts are stuffing the English language full of jargon. As science and technology grow increasingly multifarious and specialized, the jargon necessarily grows increasingly recondite: in the journal *Neurology*, for example, article titles like "Homogeneous phenotype of the gypsy limb-girdle MD with the *y* sarcoglycan C283Y mutation" are run-of-the-mill. The range of English continues to expand further and further beyond any single person's ability to understand it all.

One more fact worth keeping in mind is that the relationship between science or technology and English is, essentially, accidental. It is chiefly because the United States has long been in the vanguard of much scientific and technological research, of course, that English is so widely used in these fields. If the United States were for the most part Frenchspeaking, surely French would be the language of science and technology; there is nothing inherent in English to tie it to these fields. And if something as earthshaking as the Internet had been developed in, say, Japan, perhaps English would not now be dominant to the extent that it is. Future technology may well originate elsewhere. In the rapidly advancing field of wireless communications devices, for example, Scandinavia is already the acknowledged leader.

Here an argument is sometimes advanced that American culture furthers innovation, openness to new ideas, and so forth, and that our culture, whether by accident or not, is inseparable from the English language. But this takes us only so far. Even if the vanguards in all scientific and technological fields, everywhere in the world, used English in their work, once the fruits of their labor became known to ordinary people and began to matter to them, people would coin words in their local languages to describe these things. Theoretical physicists at international conferences may speak English among themselves, but most high school and college physics teachers use their native languages in class with their students. The Microsoft engineers who designed the Windows computer-operating system spoke English, and used English in what they created, but in the latest version, Windows Millennium, the words that users see on the screen are available in twenty-eight languages--and the spell-checker offers a choice of four varieties of English.

IN sum, the globalization of English does not mean that if we who speak only English just sit back and wait, we'll soon be able to exchange ideas with anyone who has anything to say. We can't count on having much more around the world than a very basic ability to communicate. Outside certain professional fields, if English-speaking Americans hope to exchange ideas with people in a nuanced way, we may be well advised to do as people elsewhere are doing: become bilingual. This is easier said than done. If learning a second language were so simple, no doubt many more of us would have picked up Spanish or Chinese by now. It is clear, though, that the young learn languages much more readily than adults. Surely, American children who are exposed to nothing but English would benefit from being taught other languages as well.

At the same time, English is flourishing, and people here and everywhere are eager to learn it to the extent that it is practical for them to do so. It would behoove us to make learning English as easy as possible, for both children and adults, in this country and abroad.

However unwelcome this news may be to some, not even headlong technological advances mean that computers will soon be doing all the hard work of coping with other languages for us. For the foreseeable future computers will be able to do no more than some of the relatively easy work. When it comes to subtle comprehension of our world and the other people in it, we are, as ever, on our own.

See www.theatlantic.com/globalenglish for a conversation among David Graddol, Anne Soukhanov, and Barbara Wallraff, and a forum in which readers are invited to share stories about the local effects of the globalization of English.

[Author note]

Barbara Wallraff ("What Global Language?") is a senior editor of The Atlantic and the author of the book *Word Court* (2000), which grew out of her bimonthly Atlantic column of the same name.

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