

COMPUTER TECHNOLOGY AND NON-ENGLISH SPEAKING PATRONS

North America and the Web—Canada leads in ESL

Until recently the United States viewed itself as an English-speaking nation and neglected to embrace the multicultural aspects that made this country great.

This tendency to recognize English as the only acceptable language is evidenced by the trend of information providers and mass media outlets, including the Internet, to present information and other communications solely in the English language.

North America, as a whole, is realizing that a new wave of immigrants, as well as exchange students, visitors, and bilingual citizens, are part of the community. Libraries are realizing they must reprise the role they played during the early 20th century: helping non-English speaking patrons garner information to enable them to prosper.

North America is changing and so is the Web. Although English-speaking Internet users are still the majority online, many users also are browsers from Japan, China, and Spanish-speaking countries. Global Reach, a marketing company, projects that non-English speaking users will dominate the Web by a ratio of 2 to 1 by 2005.

The biggest growth areas include surfers who are Chinese- and Spanish-speakers.¹ Within the next few years expect to see an abundance of information in languages other than English.

Libraries can prepare themselves and their patrons for this shift by making their libraries accessible for today's non-English-speaking users.

The new gateways

In the 1900s, Buffalo, Pittsburgh, Philadelphia, Cleveland, and Baltimore were known as gateway cities for immigrants wishing to make their fortunes in the New World. Although a few of the long-established immigrant destinations such as Chicago and New York are still viable ports, most immigrants are settling elsewhere.

According to the Brookings Institute, 13 states (primarily those in the West and Southeast) saw foreign-born growth rates more than double the national average in the 90s. These states included Colorado, Georgia, Nevada, and North Carolina. And today's immigrants are living in the suburbs rather than cities.

Some cities, such as Las Vegas; Atlanta; Dallas; Washington, D.C.; Salt Lake City; the Twin Cities; and Raleigh-Durham (N.C.), are watching their foreign-born populations explode. Atlanta saw its immigrant population increase 817% and Raleigh-Durham saw an increase of 709% over two decades. In Canada, British Columbia is becoming a haven for highly educated foreign professionals seeking a new home.

Determine what is happening in the library's service area, www.brook.edu/dybdocroot/urban/pubs/gateways.

The Brookings Institute has done an excellent study of immigration settlement trends in the United States. Researchers provide tract maps of the cities with a significant number of immigrants, which can be used as a starting point to evaluate if the library's neighborhood is witnessing an immigration wave.

Immigration wave challenges libraries

Multilingual patron populations present new challenges for libraries. They are not bound by limitations of print media. Electronic information has the ability to make learning English, studying for citizenship tests, and completing school assignments achievable. To facilitate access to computers and electronic information, libraries in North America need to offer non-English-speaking patrons equipment and services.

The numbers

The U.S. 2000 Census reports that 47 million people in the USA (18% of the population over 5 years old) spoke "a language other than English" at home.² The percentage of people in this category grew by 47% since the 1990 census.

More than a half million speakers of these non-English languages are at home in the United States: Spanish, Chinese, French, German, Tagalog, Vietnamese, Italian, Korean, Russian, Polish, Arabic, and Portuguese.

"While the population aged 5 and over grew by one fourth from 1980 to 2000, the number who spoke a language other than English at home more than doubled."³

More than 28 million people in the United States speak Spanish at home, with just slightly more than half characterizing their ability to speak English as "very well."

Although Spanish continues to be the most frequently non-English language spoken at home, Chinese jumped to the second place. Vietnamese speakers number 1 million-plus, from more than half a million in 1990. Speakers of Russian at home almost tripled (242,000 to 706,000). French Creole speakers doubled from 188,000 to 453,000.

The publication, "A Profile of the Nation's Foreign Born," presents a useful overview of the immigrants, www.census.gov/prod/2002pubs/cenbr01-1.pdf.

What can libraries do?

Library staff should first determine if a change occurred in the ethnic makeup of patrons using libraries in relationship to the native language spoken. Look at maps prepared by the Census Bureau and read the reports of the Brookings Institute.

Consulting with civic and business leaders, as well as talking to leaders of religious and social organizations could help the library determine where new residents are coming from. These club representatives often ask to post notices on the library's bulletin boards or to place foreign language newspapers in the literature distribution racks. A few minutes of conversation can yield usable information.

If a notable shift has occurred from English as a first language to English as a second language, then libraries need to assure their services, including computer access, reflect the trend.

For example, communities may note an increased amount of Spanish-speaking patrons. Staff should observe how these patrons are using the library as well as why members of the population are not using libraries.

Staff liaisons can reach out to cultural heritage groups to determine what services are needed and requested and work together to incorporate requests into the library's short- and long-range plans. Hiring staff members who speak the language is helpful.

During the planning and development period, the library can take actions to make the library a more nurturing place without spending a lot of money. Libraries can provide alternate keyboards and facilitate the downloading of software programs in the languages spoken by patrons in their service area.

In communities where many residents speak English as a second language, librarians also can develop links with libraries in the patrons' native tongues. Most nonnative patrons like to keep up with events of their homeland. Once patrons are used to accessing computers in general, then computers can be used to aid in the transition from native language to English.

Recognizing the multilingual and multicultural diversity of Canada, the National Library of Canada supports a French and English language interface, plus has launched a far-reaching diversity initiative. The initiative, Multicultural Resources and Services Program, helps librarians to support, promote, coordinate and deliver multicultural/multilingual collections and services. The library also supports the unique heritage and living cultures of the Aboriginal peoples of Canada. Through partnerships with Aboriginal groups, the library provides links to resources from the library's collections and services for all interested visitors.

Software for public-access computers

Few Microsoft users are aware that their word processing programs have the capacity to speak 50 languages. When the Multilanguage features are activated, public libraries can offer patrons the use of 50 languages for Internet and word processing needs. All the user needs to do to use the product is to locate it from the list and install it as an active language. This practice is being offered by the Calgary Public Library (Canada).

The Microsoft suite of programs also includes onscreen keyboards in most languages. These onscreen keyboards serve as key translators for the users who do not know which English language key equals that of their native language.

This translation type of keyboard is especially helpful to patrons whose native language is not represented in Latin-based alphabets such as Cyrillic, Greek, Arabic, Persian, and Chinese. The ability to read and write text from right to left, required for Arabic and Hebrew, is available by using a Microsoft toolbar.⁴

Hardware for public-access computers

Some patrons prefer to use keyboards with keys printed in their native languages, which are Latin-based but include accents or umlauts. Spanish Internet

National Library of Canada,
www.nlc_bnc.ca/multicultural/index-e.html
and www.nlc-bnc.ca/aboriginal/index-e.html

Calgary Public Library,
<http://calgarypubliclibrary.com/library/multilanguage.htm>

Microsoft keyboard products,
www.microsoft.com/globaldev/reference/keyboards.aspx

A variety of foreign language computer including press-ply labels and products:
www.datacal.com/dce/international-overlays.htm.
BTC international keyboards,
www.cyrillic.com/keyboard/btc.html

View a Spanish language keyboard at
www.wesleyan.edu/CTWMellon/Resources/Quickstarts/fklspace.html.

keyboards that are compatible with Microsoft's products are often requested as an accommodation to reduce the learning curve. The keyboard is under \$50, simply plugs in, and is compliant with most word processing systems.

Commercially available keyboard overlays also can be used. The press-ply labels, priced at under \$15, fit over the keys and are available in numerous languages.

Adaptive technologies used with non-English-speaking patrons

Chapter 2, which focuses on the use of adaptive technologies for people with disabilities, notes technologies such as screen readers and scanners are available in languages other than English. assistive technologies can enable those whose first language is not English learn how to pronounce words and learn how to read English. Likewise, they also can help English speakers learn foreign language pronunciation.

Here are some products to consider:

- Screen readers can be useful tools for learning language. For example, JAWS 5.0 provides acceptable language pronunciation, especially when the text has been tagged for automatic language detection or prepared to accommodate the differences between how language flows when spoken.⁵ Window-Eyes supports English, French, German, Italian, Portuguese, and Spanish including regional (geographical) variations of these languages. LunarPlus is available in 18 languages including Cantonese.
- IBM Homepage Reader 5.0 also supports nine languages including dialects and, like JAWS, provides acceptable language pronunciation, especially when the text has been tagged for automatic language detection or prepared to accommodate the differences between how language flows when spoken.⁶
- Kurzweil 3000's ESL module provides Spanish bilingual dictionary definitions and also reads any foreign words in documents, although it doesn't translate or read imported or scanned documents in other languages.
- Read & Write Gold 7 features a pronunciation tutor that breaks words into syllables and shows how to pronounce them with a moving mouth.

Although these technologies use speech synthesizers, the computer is a patient coach. It repeats words and letters as many times as needed. The caveat to using the above-mentioned programs as language coaches is that words are sometimes mispronounced, and the programs have the potential for teaching students to speak like a computer.

Learning labs

If funding permits, libraries can devote space to establish language learning labs. For students learning English, many self-teaching software and audio CD kits are available. Having language labs in the library extends access to learning since libraries have patron-friendly service hours.

Some lessons that can be accessed via computer are:

- English Easy Consonants
- English Easy Vowels

- English Easy Grammar
- English Easy Conversation
- Pronunciation Power
- English Mastery
- Test of English as a Foreign Language (TOEFL) Mastery

Keep in mind that the program may need to build in a motivational mechanism encouraging students to participate. The Surrey Public Library in British Columbia has a model lab, the Learning Center. Working with a local community group called Options, the library conducts a class called “Project Literacy—Unlocking the Keys to Employment” to demonstrate how speaking English helps students. Two components include resume building and job shadowing.

Computer classes in native languages

The adage, you have to reach them before you teach them, rings true. Computer technology promises to help non-English-speaking people learn to speak English and locate resources, but programs do no good if the people cannot access the technology due to a language barrier. People can sit in the same class for weeks, but if they do not understand the teacher they cannot learn. Teaching classes in the students’ native tongue is essential.

Offering classes such as computer basics, word processing, Excel, user-friendly browsers, e-mail, search engines, and searching catalogs and databases are valuable. Another important concept to be taught is using the English-language Internet.

Many foreign speaking immigrants and students are well-versed in Internet usage but are challenged by the English language. Having a teacher explain the attributes on the library’s homepage, catalog, or databases in the student’s native language allows the student to make the needed translations for more efficient usage.

Working with patrons

Staff should be mindful that students probably have different levels of English comprehension and may require a lot of repetition throughout the lessons. The following tips are offered to staff working with ESL students:⁷

- Greet and welcome students using exact language.
- Make yourself accessible to those who are less confident.
- Choose words carefully, following the script, so as not to introduce unknown words into the lesson.
- Less is more: allow plenty of time for the class to move through the lesson. Learners may have more of a challenge to understand directions due to language barriers.
- Go step-by-step together with the class as a whole. Assure everyone is on the same page.
- Always review material from the previous class. Encourage the students to practice between classes.

Surrey Public Library,
www.spl.surrey.bc.ca
(Mary Murphy, learning
center administrator)

A mouse skills tutorial
in Spanish from The
Library Network (TLN)
Technology Committee,
[http://tech.tln.lib.mi.us/tutor/
welcome.htm](http://tech.tln.lib.mi.us/tutor/welcome.htm)

Available from **English as a Second Language Network**, www.esl.net/opd-interactive.html, and **Multilingualbooks**, www.multilingualbooks.com/opd.html.

Colorado Department of Education, www.cde.state.co.us/cdelib/technology/download/G_workbook.doc

Multilingual online translators, www.nlc-bnc.ca/multicultural/r25-303-e.html

Public Library of Charlotte and Mecklenburg County, www.plcmc.org

- Provide bilingual handouts.
- Have dictionaries available. Install the Oxford Picture Dictionary Interactive on the classroom PCs for quick word checks.

An excellent workbook for teaching computer skills in Spanish was developed by the Colorado Department of Education. It includes suggested goal-oriented session plans.

Designing librarians: Website should reflect the community

The library's website should reflect the library and the community it serves. If the library serves a predominately Spanish-speaking community and provides bilingual programming such as story hours, book discussions, English lessons, and so on, then, too, should the library website reflect the Spanish language being spoken.

Libraries can offer a mirror site to the English-language website in community members' other languages. Libraries surveyed support an alternate language site and actually write the site in the language as opposed to using translation software.

The library's multilingual website

Libraries should consider including translation software on their sites. This software enables information in one language to be made available to someone who speaks another language.

Since not enough human translators are available to meet the demand, translation software has become popular. Although machine translation is still far from perfect, it has opened the door to actual multilingual conversations and information sharing.

The National Library of Canada offers these suggestions for libraries:⁸

- Provide a series of links on the library website to external sites in other languages. Using this approach, a library does not have to develop any specific, additional language or technical expertise.
- Provide information and brochures in other languages on the library website through the use of PDFs with embedded fonts or using multilingual keyboard support for common word processing systems.
- Provide library websites that use Unicode (utf-8 encoded) Web pages designed in their own languages to meet the needs of the multicultural communities. These enhanced multicultural websites have to be able to handle different character sets and to provide quick translation systems. These sites provide multicultural information located on the library server.

Many suitable language translators are available. The National Library of Canada offers visitors links to sites that can be used by libraries wishing to make their site multilingual.

Libraries using translating technology

The Charlotte Mecklenburg Public Library's home page includes a language page translator provided by Systran (French, Spanish, Spanish, Portuguese) that

is easy to activate. The Baltimore County Public Library provides Web pages in Russian and Korean.

Also worth noting is the Vancouver Library and the Multilingual Translation Technology Centre at the University of Toronto Technology Centre, which each support an exemplary multilingual presence.

Welcoming website for Non-English-speaking visitors

Many good sites can be emulated. Most incorporate good Web design and include:

- A welcome message in native language
- Links to community resources (schools, utilities, housing)
- Library resources (foreign language magazines, newspapers, books, videos, electronic databases)
- Selected websites (health, citizenship, immigration, cultural groups, free legal services)
- Free public programs of interest to newcomers who are just learning to speak English
- Practice tests for driving license, citizenship, and so on
- A lot of pictures of people or other cultural artifacts

All sites stressed that the services were free and open to all. For some patrons of the ESL community this program is the first time they have experienced the opportunity to have equal access to information.

Getting started

Thinking beyond a library's boundary is sometimes difficult, but a lot of help exists in cyber space, most of which originates from other countries. One of the best websites for information on creating multilingual websites is LOTEit, a part of Open Road Australia, which is a cultural project designed to assist public libraries and community organizations in exploring the potential of using the Internet to provide services to their diverse communities.

If all that can be accomplished is the addition of a few useful sentences or links in the appropriate language, then by all means do so.

Attracting patrons with culture or "Bienvenidos a la Biblioteca"

One more question still must be addressed. How do libraries attract multicultural patrons via the Web? Does culture matter on a Web page? If you believe that cultures may have definable personalities, then consider adding some design to accommodate cultural differences.⁹

Universal design may be defined as "a simple design without cultural detail."¹⁰ Many library pages reflect an attractive, simple, predominantly text-based design that translates language without any additional parameters.

Systran,
www.systransoft.com/LP.html

Baltimore County Public Library,
www.bcplonline.org

Vancouver Public Library,
www.vpl.vancouver.bc.ca/branches/LibrarySquare/multi/links.html

Multilingual Translation Technology Centre, University of Toronto Libraries,
www.library.utoronto.ca/translation

Open Road Australia,
www.openroad.net.au/web

The following is a starter list of some role-model library websites:

www.arapahoelibraries.org/Languages/spanish.cfm

www.oaklandlibrary.org/Branches/CCB/principal.htm

www.co.arlington.va.us/lib/info/americans/virtualtrspa.htm

www.communitylibrary.org/espanol

www.barth.lib.in.us/indexespanol.html

http://hobbspublib.leaco.net/sp_default.htm

www.plcmc.lib.nc.us/beyondBooks/espanol.asp

www.multcolib.org/libros/index.html

www.lvcld.org/espanol/index.htm

www.fresnolibrary.org/spanish

<http://sfpl4.sfpl.org/chinese/index.htm>

www.ferglib.org/ferg/mult_languages/spanish/SpanishHome.htm

Reforma,
www.reforma.org

The Utah State Library Division's website has a useful Spanish glossary of library terms, <http://library.utah.gov/glossary.html>.

Houston Public Library offers a Spanish language link to a suite of Web-based office programs, www.hpl.lib.tx.us/hpl. The link is www.simhouston.com/spanish/default.asp.

Design can be culturally directed by adding a few cultural parameters to customized pages that provide signals to ethnic groups that they are welcome.

Cultural considerations for newcomers include:

- Using culturally appropriate colors, graphics, and aesthetic elements that contribute to a familiar atmosphere
- Using inviting photographs of patrons and library staff
- Providing a design with clear choices to reinforce the newcomer's ability to succeed using the site

Many libraries can serve as role models here. Some have been fortunate to have the resources to include the extras that go a long way toward welcoming and accommodating speakers of languages other than English. They've added welcoming words and explanations of the library's role and services, often including a note to stress that services are free. Text is often bilingual.

Many have included photos or graphics of friendly staff and patrons whose appearance matches the targeted group, aesthetic considerations such as color or cultural icons to attract patron's interest, and easy-to-use sites.

Spanish language resource: Reforma

If the library is starting to create access for Spanish-speaking patrons, a good place to find information is Reforma.¹¹ Reforma is the National Association to Promote Library and Information Services to Latinos and the Spanish-speaking. It lists 288 libraries that provide information in Spanish. A wealth of information is available for patrons via Spanish language Web pages.

Reforma lists more than 40 pages in Spanish providing information or access to the Internet ("la Red"). Reforma's excellent library listing provides general information pages as well as links to some English-language Hispanic/Latino sites and links to catalogs in Spanish.¹²

Bringing culture to the library staff or staff training

What do libraries do for staff who are not bicultural? Sometimes computers must give way to people and the staff should seek the human resources department. Many human resources departments conduct sensitivity training classes for staff on topics such as working with people with disabilities. So too must classes be offered in the cultural differences that patrons who speak languages other than English language bring with them.

The Houston Public Library, for instance, offers staff Spanish classes for staff.¹³ The class sessions are short and help staff learn basic terminology and include lessons on Hispanic culture. Librarians versed in the Spanish language developed a booklet with library terminology in Spanish to avoid misunderstandings, which could be embarrassing for both the library and the staff.

Conclusion

At the turn of the 20th century, libraries and librarians in metropolitan cities went to great lengths to help immigrants assimilate and prosper in North America. The opportunity and need is once again presented to the library world. Librarians have the tools to do far more than those early professionals. The actual cost to help patrons who have ESL is minimal, the potential outcome astronomical.

Notes

¹Wright, Greg. "Non-English Internet the Wave of the Future." *USA Today*, June 5, 2001. www.usatoday.com/tech/2001-06-05-non-english-internet.htm (accessed Feb. 3, 2004).

²Shin, Hiyon B., with Rosalind Bruno. "Language Use and English Speaking Ability," U.S. Census brief October 2003. <http://landview.census.gov/prod/2003pubs/c2kbr-29.pdf>.

³Shin, p. 2.

⁴Blackhall, Gael. "Multilanguage Features for Public Access Computers," *Feliciter*, Issue #1, 2004. p. 24.

⁵An online project and report from University of Texas/Austin, prepared by Esther Raizen, "Foreign Language Instructional Website Accessibility: Evaluation Report," details testing of French, German, Hebrew, Spanish, and Russian. Univ: www.lamc.utexas.edu/hebrew/personal/tts/report.html.

⁶*ibid.*

⁷Computers in Action—Integrating Computer Technology into the ESL Curriculum, Notes to the Teacher. <http://hub1.worlded.org/docs/cia/notes.htm> (accessed Nov. 25, 2003).

⁸National Library of Canada. Developing Multicultural Resources Toolkit. www.nlc-bnc.ca/multicultural/r25-303-e.html.

⁹See Geert Hofstede's cultural considerations and Web design implication work by Aaron Marcus.

¹⁰Chu, Steve. "Using Chopsticks and a Fork Together: Challenges and Strategies of Developing a Chinese/English Bilingual Web Site," *Technical Communication*, Second Quarter 1999, pp. 210-216.

¹¹www.reforma.org. "U.S. Public Library Websites With Information in Spanish/ Bibliotecas Públicas de los EE.UU. con Sitios Web con Información en Español" is www.reforma.org/spanishwebsites.htm.

¹²www.reforma.org/spanishwebsites.htm.

¹³Sandra Fernandez of Houston Public Library, in a telephone interview February 2004. The library links to a Spanish version of SimHouston "a suite of powerful Web-enabled office products including a word processor, e-mail, calendar, contact manager, spreadsheet, and file manager."