ABSTRACT: This paper aims to describe: (1) how computer communications are accelerating the convergence of specialist and generalist knowledge. Seeing education as a process of turning specialized knowledge into general knowledge could be helpful in revalorizing general education and in raising the status of two-year colleges. (2) The debate in Japan on the low status of general education, citing sources in Japanese. The Aum incidents involving highly educated people in the shocking misuse of science have been publicly linked to the vocationalization of universities and to the impoverishment of liberal arts education. Recent Ministry of Education directives had led to reduced college general education requirements, but the Aum incidents served to revalorize the ideal of a well-rounded education. (3) the effect of the above two trends on what is possible in the TEFL classroom. Community attitudes have held that English communication is unnecessary, so English classes have been in a slump along with the economy. But the Internet provides a convincing reason to learn other languages. The outside world can be brought into class, and authentic e-mail can be exchanged. CALL CD-ROMs and so forth are easy to use with a mouse. Attendance has thus increased in my Practical English classes for computer-related majors at a junior college in Japan.

PREFACE: Revalorizing general education means to reinvigorate its status in the community and to restore the nerve of its time-honored vision in the teaching profession. Since the bulk of general education tends to be conducted during the first two years of higher education, the status of community colleges in particular may hinge on public perceptions of the value of a well-rounded education. The debate on this perennial and global issue, as it influences Teaching English as a Foreign Language (TEFL) in Japan, may be of reference to readers seeking perspectives on liberal arts education or contemporary generalist knowledge.

This paper will attempt to bring together the macro-levels of the profession and the community in the contemporary world with the micro-levels of the teacher and the student. A cross-cultural perspective pertains, moreover, when treating pedagogical issues in a non-Western context. Parallels to other countries may be seen nonetheless in such trends as the decline of general education in Japan relative to specialized studies. This paper therefore aims to substantiate countervailing trends such as the richness of generalist knowledge now accessible. But first an inside view of Japan will be presented: the context of TEFL as a form of college general education, the surprising impact of the Aum phenomenon on the debate over general education, and some lessons that have enlivened a general education class now that the Internet connects Japan with the world.

THE CONTEXT OF TEFL IN JAPAN: Japan is a socially sophisticated country of 125 million people, educated to embrace technological innovations. Their adaptability has been proven on a rugged terrain with little arable land, extremes in temperature and humidity, typhoons and devastating earthquakes. At the same time, protected from invasion by the hazardous Japan Sea, relative isolation for centuries has resulted in common sense that happens to contrast with that of many other cultures. Chinese characters were furthermore grafted onto a non-cognate, syllabic indigenous language with subject-object-verb syntax. Today in arguably the world’s most complex verbal and non-verbal communication system, fully 13% of everyday speech consists of foreign loanwords, mostly from English. However, there is often a semantic shift or narrowing of their meanings, while the pronunciation of loanwords is generally altered to fit the Japanese syllabary (Honna, 1995, p. 45).

Before Japanese students encounter a college English teacher, they have ordinarily had six years of compulsory English education with Japanese teachers who have tended to follow a traditional grammar-translation approach to foreign languages. A revised national English curriculum for the secondary schools and several thousand native-speaking Assistant Language Teachers (see Wada and Cominos, 1994), aim to make English education more communicative, while Japan and Korea both plan to introduce English to the 5th and 6th grades of elementary school in 1997. But there are bottlenecks in teacher training and in-service development along with the inability of paper tests such as college entrance exams to measure communicative competence.

Japan, with half the population of the U.S., has a similar proportion of universities and mostly private junior colleges. However, graduate programs that could bring academic rigor to the English teaching profession are still very few. Undergraduate English majors, a majority female, tend to attain a degree of literacy but disappointing levels of oral proficiency in English. Shigeto Inamuro (1984), longtime director of the Michigan State University English Language Center, citing standardized test scores, lamented that the progress of Japanese students in ESL courses at MSU was the slowest of any nationality. Since Japanese education shows relatively good results in other areas, research is needed into the socio-cultural and cognitive distance that Japanese-English bilingualism must bridge.
As for applying the state of the art in TESL to the TEFL context in Japan, "methodologies developed in Britain, North America or Australasia for 'ideal' teaching-learning situations" (Holliday, 1994, p. 11) may not be appropriate to a non-Western social context, and it is not "simply a developed-developing problem because there are difficulties in implementing the methodology in developed countries such as Japan" (p. 12). Briefly, education is one of the most conservative sectors in Japanese society. Kindergarten typically starts at age three and, compared to the West, schools in Japan are very demanding and regimented from grades one through 12. With a longer school year and after-school schooling for most children, a form of educational and testing culture has become deeply ingrained in the populace. Research by Ryan (1993) has shown that Japanese and Australian teachers and students bring very different assumptions and expectations into the intercultural classroom.

Notwithstanding the shaky infrastructure of TEFL in Japan, most college students of all majors are compelled to take English for credits in general education needed to graduate. The lower the level of English proficiency, furthermore, the more limited the scope for innovation in approaches, methods and techniques. Educational technology, usually adopted from the U.S., takes time to absorb, so EFL lessons in Japan cannot implement all that native speakers of English can now do with computers. As for Internet use by the general public, a survey showed that browsers of a WWW site in Japan were 96% male, 80% under 35 years old, over 60% from the Tokyo area, and mostly with technical or scientific backgrounds (Drake, 1995, p. 30). Nishijima (1996, p. 15) observes in the vernacular national daily Asahi Shimbun that young women, who love to write and chat, hold the key to mass acceptance of the electronic media. The Internet calls for a youthful sense of play, a connectivity culture, freedom and self-expression. For this to happen the Japanese must go beyond materialism and break the mental habit that forces everyone to be the same. Pessimists argue that Japan could be isolated by its organizational ways even on the Internet. Inability to express themselves in written English will leave the Japanese as passive recipients of the world network (translation of the gist by this writer).

The wider social context of TEFL in Japan, then, is that the community affects the profession, which in turn circumscribes what is possible at the individual teacher and student levels in the classroom. EFL subjects arise paternalistically, with elders not mastering English themselves, but deeming that younger people need it for Japan's prosperity and internationalization. Students for their part may not be convinced that the rewards of standing out in a foreign language would exceed the cost to their social life. Teachers are expected to provide the motivation, which often proves unrealistic. However, if teachers were to open a window to the world for students preoccupied with the demands and amusements of their own society, even modest changes in student attitudes might signify a move away from monoculturalism toward biculturalism or cosmopolitanism.

Knowledge of the language and acculturation to the host country, moreover, can empower an educator to be a full participant in a non-Western democracy, opening up supporting conditions for innovation. While remaining cognizant of worldwide trends in thought and technology, it is vital to be active in the profession where one lives. For as Jack Richards said, "a professional teacher is one who is active in the profession" (Pennington, 1992, p. 13). In Japan this would mean being involved with colleagues who are natives of the culture as well as with native speakers of English. For an expatriate it is a delicate balance to find oneself between the Scylla of assimilation and the Charybdis of cultural imperialism.

**REVALORIZING GENERAL EDUCATION IN JAPAN**

While EFL in Japan is taught more often as a general education subject, English as a chosen major also belongs to the liberal arts and is affected by the status of general education in Japan. In its modernization drive, Japan internalized the natural and applied sciences without doing the same for the humanities. Looking to augment the old with the new and useful, higher educational authorities have not prescribed the many traditional classics and arts that would merit a place in the liberal arts curriculum, except where they provide marriage credentials. Instead, authorities derived Western models for the liberal arts curriculum and for the general education of professional, science and technology majors where male students have predominated. The teachers themselves, let alone the students, could not fully digest traditions with Western roots, so general education has been the least effective and least supported area of the curriculum.

To illustrate this, walking into a general education class at a public college spending a fortune on computers and robots, this writer witnessed a cheaply paid, elderly adjunct teacher squinting into the textbook silently at the podium while all but a few of the students were boisterously preoccupied with each other at the back of the room. With general education in such low esteem, foreign language teachers also encounter defensive learning if not rebellion.

The Ministry of Education in Tokyo is notorious for its ability to control all levels of education in Japan, directly or indirectly. They are proud of the high average scholastic standards they have enforced. Be that as it may, seeing the sorry state of general education in the '90s, along with the desire of administrators and students for more specialized subjects instead, the Ministry "liberalized" college standards to allow the lessening or abolition of general education requirements. College committees formed to discuss what, if anything, to do differently. These gave faculty members such as this one the opportunity to defend the value of the liberal arts in providing a well-rounded education for the students. Then the crime of the century by civilians in Japan unfolded with grisly revelations that highly educated scientists, technicians and doctors were waging civil war on this Ideologically homogeneous and harmonious society. The sense of safety and stability was jolted at the same time by the Great Hanshin Earthquake. The peace-loving post-War generations were shocked more than anyone abroad because the culprits were not from a minority group and had gone through the purportedly meritocratic, standardized educational system. With a strong imperative to explain this and to place responsibility, an astute analysis emerged, at least in part. Publicizing this analysis could in turn open a window of opportunity for the re-evaluation of general education and, by extension, TEFL in Japan.
Here follows my translation of a tolling newspaper article by an editorial board member of the *Asahi Shimbun*:

Our society has been shaken by the revelation that the Aum Incidents were perpetrated by an organization with many highly educated leaders. This topic has been brought up by all the professors I have met lately. How could graduates of so-called elite universities and graduate schools in the sciences, engaged in frontier research, go to the ostensibly opposite pole of mysticism? Young people have recently shown a weakness for psychic and occult phenomena, so a surprising proportion of my informants did not find it strange that young people have been easily pulled into the new religions, not limited to Aum. Then we must counter with the question, what kind of education has been going on in the universities? Of course this is a difficult question with no one correct answer readily apparent, but where can we go for an authoritative answer if not to the universities? In this connection, was not last year's curriculum reform action (by the Ministry of Education, permitting the diminution of general education requirements) regressive? With the revised university establishment standards, most science departments have reduced general education requirements in favor of similarly increased credits in specialized courses. In many other cases, however, liberal arts subjects are left to the free choice of students. This has led to a flood of charges that the universities are neglecting the liberal arts or are turning into vocational schools. Not to say that the past was ideal, yet a balance was formerly sought among the natural sciences, the humanities, and the social sciences, by requiring three subjects or 12 credits in each of the three fields. The aim of balancing these requirements was to instill a broad perspective in students. No one knows what kind of education could prevent reckless behavior in science graduates, but we cannot believe that vocationalization of universities could do this to any extent. After all, there is no recourse for our hopes but to the liberal arts. The trouble is that the liberal arts have not taken root in Japan's universities. For all the energy that has been exerted toward this goal, in the end it is left to each institution to decide what to do about the liberal arts. Elite national universities are forging the way by eliminating liberal arts divisions altogether (Yamagishi, 1995, p. 9). But recent events not confined to Aum are laying bare the weak points of Japan's universities. For the sake of deepening the understanding of true natural science, of society and humanity, we should like colleges to rise up and think anew about liberal arts education.

Here the debate about liberal arts requirements surfaces in a national daily with a circulation of 8.5 million, including a relatively large readership of teachers. The issue is thus on the public record even if most citizens do not take much cognizance of the debate, which is largely behind closed doors at universities and related government ministries. The article convincingly implicates those with power over university education, who must then search their consciences for culpability in the shocking misuse of science or else reflect on the value of the liberal arts.

Western scholars have agonized over similar trends toward specialization, but the Western liberal arts tradition has proven instrumental in matching the hazards of scientific advances with initiatives such as bioethics and disarmament. For the above article to say that the liberal arts have not taken root in Japan, however, implies that they are a foreign import. Indeed, the content of most liberal arts courses is derived from Western sources. Whereas the Japanese could find enough ethical guidance in their own tradition if they studied their own classics. Non-Japanese could assure them that their liberal arts tradition is worthy of representation in any college curriculum. More recognition is needed worldwide, in any case, that the liberal arts give the university its universality and unity, lest it fragment into a collection of unrelated vocational departments. This applies no less to two-year colleges with their relatively high proportion of liberal arts offerings.

As linguistics and language teaching belong to the humanities, EFL teachers are practitioners of the liberal arts. When threatened with cutbacks, rather than downgrade other, arguably less relevant liberal arts subjects, it would be more in keeping with the humanistic mission of EFL teachers to cooperate with other faculty members in demonstrating the practical value of the liberal arts. Foreign language education is both most conspicuous and easiest to externalize, so the fate of EFL teachers may be tied to the status of the liberal arts in Japan. Thus, while the Aum phenomenon stings the conscience of the educational establishment, EFL and other liberal arts teachers have a window of opportunity to articulate their mission anew.

A few months after the article translated above, linking the Aum phenomenon to the decline of the liberal arts, in August, 1995 the Ministry of Education issued a terse announcement offering financial incentives to colleges that bolster their liberal arts curriculum.

**SOME TELF INNOVATIONS THAT HAVE BECOME POSSIBLE** Among the factors that circumscribe what is possible in the classroom, community attitudes and the state of the profession have been mentioned briefly. There is also the spirit of the age in the worldwide community, which before long laps at the shores of Japan. New concepts and technical innovations in particular, often originating in the U.S., are adopted like loanwords with a minimum of cultural baggage. Virtually unheard-of until recently, the *intaanetto* boom now challenges a populace ever bent on keeping up with the Tanakas.

A junior college EFL class with this teacher from 1995-97 was a stand-up affair with a tape recorder for a variety of voice models. Then from 1988 a language lab turned classes into computer-operated systems plus TV with VCR. This technological leap made it possible to use more interesting materials, integrating made-for-TEFL videos to provide contextual clues and views of the English-speaking world. These visual materials do carry cultural baggage, however, often promoting materialistic values (see Pennycook, 1994, p. 13) along with the laudable desire to travel abroad.
Then in 1995 the latest technological leap turned the Practical English class into computer English and communications. With the Internet, problems of authenticity and so forth evaporate. The actual world can enter the classroom, not just images of it, and students are motivated to communicate with actual people. Pen-pal letter writing can become more immediate and satisfying with e-pals and discussion lists. But here, too, the elementary level greatly restricts the kinds of activities that are possible and, as ever, there is no available textbook that would be feasible to adopt. For computer-assisted language learning (CALL) to be recommended, the student-to-computer ratio needs to be less than three to one. With inadequate facilities and materials available, the burden is on the teacher’s imagination to find a match between the students and EFL activities.

Changing the Practical English class every year, nothing seemed to move the students. So the day after getting connected to the Internet, it was incorporated into class by crowding the students around one computer. At present there are NEC/Windows computer classrooms and a small room with 12 Macintosh computers, only half with CD-ROM disk drives, used mostly by design majors for computer graphics. However, all the computers in the college are attached to a local area network (LAN), while cyber-activities are encouraged for classes because the college pays a flat fee equivalent to 10,000 U.S. dollars per month for virtually unlimited Internet access.

However, teachers face hurdles of computer literacy, the newness of the Internet even to computer teachers, and the predominance of English. Until the Japanese version of a program comes out, use tends to be minimal. A full-time colleague from China was similarly making little use of Netscape, aside from messages to China being blocked. Although the e-mail programs are in Japanese, teachers must first have a relationship with the outside world. An administrator chuckled in the college office that Professor McCarty profits the most by far from e-mail and is monitored logging in earliest in the morning.

So then what kinds of activities have been possible for students here, and what were their impressions? Did their behavior change in terms of attendance or attitude? They had been keeping an English diary in the Practical English class and were encouraged to write about the computer-based lessons even in Japanese, with a view to collecting the most feedback. Student evaluations of the class, still rare in Japan, were requested in any language to encourage frankness.

In the school year running from April 1995 to February 1996, with classes once a week, 10 remained after connection to the Internet. Overall pre-Internet attendance for 47 students in two sections who finished the class was a modest 81.7%, and after the Internet it crept up to 82.7%. Of course this is not a statistically significant difference. However, there was a palpably upbeat atmosphere, and many students reported that the revelations of what could be done with computers went from surprise to surprise.

With only one computer generally available, lessons were mostly exposure to possibilities, with students gaining some hands-on experience by taking turns. They enjoyed a downloaded video clip of Madonna, despite the cryptic lyrics of “Live to Tell.” A student from Korea reported being moved by a sound clip of Peter Gabriel, with the simple words of “Red Rain.” The Real Audio software brings in news, discussion and music programs, quite a breakthrough for EFL study at more advanced levels. But just knowing which was English and which was Hawaiian, students swayed blissfully to songs like “Moonlight Lady” by Gabby Pahinui, with the lights turned off and the screen saver on. Even the Aum cult could not top this.

Another lesson quite unlike any the students had experienced in formal education challenged assumptions about the source of knowledge and authority, even while the content could not have been simpler. After explaining about discussion lists and contrasting horizontal Western emoticons with vertical ones used in Japanese-language networks (Aoki, 1995), the class project was to send a message to a real discussion list, which excited the students. Each student translated two emoticons and input part of the message. It was basically in Japanese, and yet students kept turning to the foreign teacher, who reminded them that they generally knew better how to express it. After the message was transmitted to the listserv, there was an outpouring of responses from Japanese teachers. These included a list of 500 emoticons vividly expressing ordinarily hidden aspects of Japanese culture (the makings of a future journal article?).

Another activity was eye-opening not least because it overcame the daunting incompatibility between domestic and foreign computers, not to mention Windows and Mac. This forced the teacher to use both, in Japanese. One day the NEC computer classroom was not being used, so the class moved there. The students input English messages in groups and then e-mailed them through the LAN to the teacher’s Mac. Asking a student’s help at one point was necessary for the experiment to succeed, which made it an authentic life experience for us all.

CALL and other CD-ROMs were also remarkable to the students, hitherto inured to monochrome keyboarding in one typeface. They enjoyed games for native-speaking children, where listening comprehension is needed to make progress. The World Wide Web was also explored to an extent, with the home page a powerful concept for reputedly group-oriented students to ponder.
REVALORIZING GENERALIST KNOWLEDGE  Internet and ERIC searches in late 1995 pointed to a number of trends and principles that could be cited in advocacy of general education or generalist knowledge. Besides the dangers of over-specialization cited earlier, the information age is rendering untenable the traditional notion of allegiance to one specialization and its academic turf. Interdisciplinary studies and multiple specializations reflect this changing paradigm. Cluster specialists are in demand to handle multi-faceted jobs amid rapidly changing fields. Auxiliary skills to succeed in business abroad, for example, might draw from various fields including foreign languages, computer science, and intercultural communication.

The computerization of virtually every field is going beyond the obvious necessity of computer literacy skills. Computer-mediated communication is an interdisciplinary area of study in itself which moreover opens up a dialogue among hitherto disconnected fields. Computer communications through the Internet are at the cutting edge of new developments in scholarship, so academics in all fields need interdisciplinary knowledge. Global computer communications are moreover changing the nature of knowledge itself, both as information and as cognition, as constructed in a certain socio-cultural context and as communicated through a certain medium.

The trend to over-increasing specialization has broken academia into a proliferation of narrow areas of study, none of which implies mastery of the increasingly vast field to which it belongs. Branches of learning need to work together, for example, the natural and social sciences exchanging methodologies and research findings with linguistics. In this instance neuro-linguistics, sociolinguistics, and psycholinguistics apply to language teaching. Breakthroughs can result from investigating the same phenomenon at different levels from the perspective of different disciplines. The following supports findings in bilingualism and second language acquisition research: Based on research studies using positron emission tomography (PET) and magnetic resonance imaging (MRI), new evidence suggests that language instruction should be initiated at a very early age in order to promote optimal bilingual development. (Silva, 1995, p. 3)

Knowledge is evolving so rapidly that universities are examining their curricula for umbrella terms that can embrace foreseeable changes. For the more specialized the knowledge, the more quickly it becomes obsolete. Georgetown University, for instance, is offering a new graduate program in Communication, Culture, and Technology: an interdisciplinary program devoted to cultural theory, media studies, social policy, and communication technologies. This innovative new program focuses on current issues and theory at the intersection of Discourse, Language, Media, and Technology. (Irvine, 1995) In a similar interdisciplinary vein, back-to-back conferences are scheduled in Hong Kong in June 18-21 (Info by e-mail: kand@hkcc.hku.hk, or updated info via the WWW: http://www.hku.hk/~engctr/kandld.html), and "Language Rights" from June 22-24, in association with Roskilde University, Denmark (e-mail: apghil@polyu.edu.hk; WWW: http://www.hku.hk/~engctr/lights/lights.html). These conference themes take on a new urgency as 1997 approaches. Academia is no longer an ivory tower for narrow specialists focusing on minutiae known only to their peers. Scholars are increasingly involved in their communities worldwide.

What is considered specialized knowledge tends to change into general knowledge if it becomes useful enough. What constitutes specialist or generalist knowledge is not the Intrinsic nature of the knowledge so much as its accessibility. Now the Internet is opening up unprecedented access to specialized knowledge. Academics have the opportunity to contribute more to society, but to compete in the on-line marketplace of ideas they need to leave their tower of jargon and make their meaning clear to a general audience.

College catalogues are increasingly using the keyword "generalist" to recast the appeal of a liberal arts education. The world needs business people and scholars, policy-makers and technocrats with a well-rounded education inspiring them to continue self-education. For the welfare of the world may hinge on whether or not the high ethics can be found to administer high-tech solutions to the planet's problems in the 21st Century.

There is no indication yet of a new breed of generalist scholars or academic generalists emerging, but it would be unfortunate if pride and prejudice thwarted this logical outcome. Generalist scholars will be needed to readily absorb knowledge from various disciplines and to synthesize it creatively to solve problems in the world. As it is incumbent upon liberal arts scholars to synthesize learning across the curriculum, academic generalists may surface first among humanities scholars engaging in computer communications.

Specialist and generalist knowledge can thus be seen as equally important, complementary and interdependent, with computer communications accelerating their convergence. This recognition could further shed light on a viable role for educators in the future by uncovering the axiom that education has always involved turning specialized knowledge into general knowledge. These are among the considerations that could be cited to bolster the status of the first two years of higher education, arguing for a paradigm shift toward revalorizing general education and generalist knowledge.