Languages, Technology and Teaching: Challenges and Solutions for the 21st Century¹

ABSTRACT

In the geological constant that the globe provides, we are faced by evolution on all fronts. As we broach a new century and a new millennium, we are motivated to reflect upon the challenges before us. We are at the crossroads of emerging and evolving technologies, the imminent probability of English being the international lingua franca, and the global multilingualism which the world requires. All of these will have an impact on the teaching of languages, demanding that teachers of languages have input to solutions. Some areas in which this can be achieved are technology, policy and planning, promotion and publicity. To achieve this, teachers and associations have a critical role to play, but rejuvenation and

1. Background

As the global population moves through 6 billion towards 7 billion – and is expected to increase more rapidly than in the past – the earth is becoming increasingly crowded, placing unprecedented demand on resources. In many poorer countries, population growth is the norm. In other countries, zero population growth is the target. In other countries, such as China, population decrease is driven by state policy.

As the global population increases – unless the world suffers some cataclysm – galaxial, geological, medical or man-made – this emphasises the need for communication, equity, access and peace. Languages have a key role to play in this process of harmonisation and promotion of cultural diversity.

On a globe experiencing increased birth rates, advancing age expectancy, poverty and famine on unheralded scales and disease aggravated by co-existential proximity, customs and lack of education, advances in medicine and science were unable to prevent 16.3 million dying from AIDS to the end of 1999 (Bartholet, 2000: 13).

Education, communication and languages have never been more important, despite the explosion of knowledge in science, medicine and technology.

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2. Context

In this presentation, I would like to offer some ideas on meeting the challenges to languages, technology and teaching in a globalised world, before proposing some solutions. The ideas presented must be in the context of the global situation given briefly above, and will relate to the priorities of FIPLV, the Fédération Internationale des Professeurs de Langues Vivantes.

As a result, this presentation will have three discrete areas of coverage, while interrelationships will be explicit or implicit. In so doing, I would like to identify examples of trends, initiatives and best practice, from which to make suggestions and recommendations which could serve as a starting point for robust discussion and action.

3. Languages

The globe is a linguistically rich and complex home for over 6 billion inhabitants. It may not be as linguistically rich as it was in the past. There were around 6000 languages in 2000 (Crystal, 2000: 11). Others place the figure as low as 3000 or as high as 10000. The discrepancy may appear extreme, but debate continues on the integrity of languages and the demarcation between language, pidgin, Creole and dialect, among other factors.

With 6000 languages across the globe, we should be happy but, as a linguist, I am not. In an ideal world, 6000 languages spread evenly across 6 billion potential speakers could lead to 1 million speakers of each, ensuring the continuity of all languages ... but the world is not like that, is it?

The reality is very different, with a continuum of language strength stretching between English at one end and, at the other, the next language to disappear from the globe. The vitality of a language depends not only on the number of speakers but on a range of factors that impact on language choice. There are more native speakers of Chinese across the globe, for example, but one still speaks of English as the global language.

3.1 English as the International Lingua Franca

Arguably, the biggest current threat to linguistic wealth globally is English, but it is not alone. In the centuries of European colonialism, England fared as well as any other. In the last 50 years, it is the Stars and Stripes rather than the Union Jack, that has led to English emerging from the pack to take it to the forefront of languages spoken, taught and learned across the globe. While the initial inroads historically were military, the emergence of English as the global language in the second half of the twentieth century has been underpinned by more than military might. Other critical factors include: prosperity, commerce, industry, technology, media, (electronic) communication, the Internet, the arts, cinema and popular music — and a seemingly unbridled desire to associate with whatever is American. And with this widespread trend comes the wish to espouse English.

The current, undeniable status of English poses a challenge to us. While we may have mixed feelings about the international perception that English is the current *lingua franca* and will increase as such (Graddol, 1997a: 58), one can predict a consolidation of English as the first choice as the second language – and the reinforcement of the view, where it is a first language, that learning another is less important. There is a risk in English-speaking countries that literacy (in English) could become the sole focus, supported politically and financially, ignoring the benefits of bilingualism, the strength of multiculturalism and the wealth of multilingualism. The further danger is the reinforcement of the view that English is spoken by all, with the resultant demotiva-

tion of students learning a language other than English and a regrettable return to monolingualism which marginalises and devalues the learning and speaking of other languages.

In some countries, the value of languages and the belief in multilingualism are integral to the ethos of the nation. This is less evident in some Anglophone countries where the promotion of linguistic diversity has been countered by retorts like why should I learn another language (in Australia) as I'm never going to travel anywhere else? and the whole world speaks English! We know, however, that everyone does not speak English. Crystal places the figure at one quarter (Crystal, 1999).

Furthermore, the place of English internationally is attracting a reaction of a different nature: a backlash. While Graddol (1997a: 39) argues that it is rarely the direct cause for the disappearance of other languages, it could be seen otherwise. The concomitant perception of contributing to the destruction of cultural diversity (...) could encourage anti-English movements worldwide (to) begin to associate language loss with the rise of global English (Graddol, 1997a: 39; Watson, 1998). This is already occurring (Phillipson & Skutnabb-Kangas, 1999: 32; GEN-Global English Newsletter 5, 1999: 4, 10–11).

While there is considerable evidence to support the antithetical view, Graddol concludes that it is no longer appropriate to assume the English language has an unassailable place, guiding a technology-driven world to a better, richer future (Graddol, 1997b: 17). Put another way, *The Future of English?* sounds the death-knell of large monolingual communities. Bilingualism will increasingly be the norm ... (Harmer, 1998: 23).

3.2 The 'Big' Languages

Holding firm to the adage that there is strength in numbers, the continuity and potential growth of several languages appear assured.

David Graddol, in a project commissioned by the British Council, makes some salient predictions about future growth – while acknowledging fully the dangers of crystal-ball gazing. He identifies English and French as the major world languages in 1997 (Graddol, 1997a: 13). He goes on to foreshadow future trends, somewhat tentatively to 2050. His assessment of the dominance of world languages in 2050 reveals the following as the 'big languages': Chinese, Hindi/Urdu, English, Spanish and Arabic (Graddol, 1997a: 59).

But what has happened to French, for example? It has been argued that French policy has emphasised protection rather than pursuing promotion as the priority (Freudenstein, 2001: 204). One has only to look at the edict of 1993 for evidence of this where, if a French expression existed, it was mandated that this be used rather than the foreign term. While trying to retain the purity of French against the onslaught of English, the status of French internationally has declined.

German has also suffered in the evolving union of Europe. With the 1989 policy of introducing the teaching of languages in primary schools in France, for example, the reality of language choice became a concentration on English, with 90 per cent of schools (introducing a language other than French) opting for English with the balance spread unevenly between German and Spanish. This background of limited language choice became a significant factor in the birth of the (new) languages awareness movement in Western Europe.

One can cite other examples: the surge for English in the CIS and former states of the communist bloc and the resultant decline in the number of students and teachers of Russian, among other languages; the choice of English in Uruguay at the expense of other languages, such as French.

The emergence of an international lingua franca has had an unhealthy, limiting impact on

linguistic diversity. It is clear that the battle for multilingualism must be fought on many fronts, as not even some of the 'big' languages are assured of retaining their current status.

3.3 The 'Small' Languages

The above focuses primarily on the major global languages, but let us recall Crystal's telling comparison: 96 percent of the world's population speak 4 percent of the world's languages. Put another way, 4 percent speak 96 percent of the world's languages (Crystal, 2000: 14). What of these others, which constitute the multitude of tongues used by an inordinately small number of speakers? Their future is less assured.

3.4 Language Death

While the acts of imperialistic nations have had a detrimental effect on languages historically – in all areas of the globe – a decided threat to indigenous languages everywhere has been the dominance of the linguistic preference of the conqueror. This has often been underwritten by policy designed to marginalise or eradicate the languages of minority groups. In some cases, genocide has been the order of the day, but government policy to ban the education and usage of minority languages has also been effective.

Historically, we have seen the decimation of nations, of tribes, of languages in the wake of colonialism. Estimates suggest that in the New World there were 100 million inhabitants before European contact, but only 1 million 200 years later (Crystal, 2000: 72), many of these dying from imported diseases. How many languages were lost in the process? We will never know!

At the time of British colonisation of Australia in 1788, it is estimated that around 600 languages were spoken by some 500,000 Aborigines on the continent and in Tasmania. Through acts of genocide (e.g. Tasmania), disease, redeployment to less desirable areas and other factors, in 200 years the number of languages has at least halved, and is more reliably estimated to be around 250 (Crystal, 1997: 326) at the end of the twentieth century.

For another example, we turn to New Guinea, the most linguistically rich land mass remaining on the globe, hosting up to one fifth of the world's languages. A critical reason for this is that much of the country, very mountainous, remains untouched by modern civilisation. This complexity is unparalleled elsewhere; another mountain, another valley, another tribe, another language ...

Indeed, when contacted for information on languages in Papua New Guinea for a current UNESCO Project, Dunc Pfantz, the Director of Language Affairs for the Papua New Guinea Branch of the Summer Institute of Linguistics (SIL), replied:

There are around 860 languages in Papua New Guinea. Between 400 to 600 of these languages have no sociolinguistic data collected from them. The approximately 100 reports that SIL has done are mostly in-house papers not intended for general distribution. Each report took a team of about three people three weeks to collect and compile the data and write the paper. Many of these reports required a helicopter or many hours of hiking in mountainous jungles (Pfantz, 1999: 1).

The contrast between the geographically close countries of Australia and New Guinea provides two very different perspectives on language retention. In Australia, language retention and retrieval have been on the agenda for the last twenty years – perhaps 180 years too late – while in New Guinea, many languages, still undocumented, have remained secure as outside forces have not been encountered.

There is a moral here: one of the best ways to ensure language retention is to deny contact with

invasive factors, where this is possible. This was not the case, however, when a tsunami swamped four villages on the north coast of New Guinea in July 1998, effectively destroying the villages and probably leading to the demise of the languages spoken there. I have learned since that a recent decision forbade the survivors to return to their original homeplace ... which will bring about the death of these languages even more quickly.

And here is the paradox: many of these languages remain unrecorded, as the speakers remain secure ... but isolated, having little or no access to the technology under discussion.

While the genocide witnessed previously – and the resultant eradication of hundreds of languages – came about through acts of colonialism, the current threat to linguistic diversity arises from other factors. But the net result, linguistically, will be the same. Between 50% (Crystal, 2000: 165) and 90% (Crystal, 2000: 18) of the globe's 6000 languages could disappear during the next century.

Further, the stark reality is that some of these languages remain 'alive' only as long as the sole remaining speaker of the language lives. Put another way, in some cases the death of an individual will constitute the death of yet another language. This was the situation for 51 of the world's languages, with 28 being in Australia (Crystal, 1999). According to Crystal's data, one language is disappearing on average every two weeks (Crystal, 2000: 19). This is tragic and underlines the fragility with which some languages exist.

Immediate action is required at the humanitarian level and this should have ramifications for languages and the use of technology in a context of globalisation.

We can't promote our ideals enough nor underestimate the need to publicise our goals at all levels, on all fronts. We need to lobby politicians, reach decision-makers, impact on those responsible for developing policy. To promote languages, to retain a firm commitment to multilingualism, to enable those in lesser developed countries to access adequate education and use of technology, we must use any legitimate means to promote our cause: personal, professional, political, policy and publications on and off the Web.

While some question the documentation of existing (and especially indigenous) languages, there is doubtless value in resourcing the work of established projects. As a result, I would like to see:

- existing initiatives to detail languages adequately resourced
- the documentation of indigenous languages continue, provided strict controls are in place (Crystal, 2000: 152-154)
- projects such as UNESCO's World Languages Report encouraged, resourced and publicised
- some synthesis of existing data to create one database of the world's languages, if agreed by the relevant agencies involved
- every reasonable step taken to arrest the disappearance of endangered languages

4. Technology

We are in an age of technological evolution where advances at the cutting edge outstrip our ability to keep pace, to capitalise fully upon recent developments.

When we talk of technology, most of us think immediately, and perhaps only, of computers. It would be accurate to suppose that most of us here now regard the computer as an essential tool in our everyday existence. But this wasn't always so, was it?

Let us do a little survey! How many of you were using computers twenty years ago? ... ten years ago? ... I won't ask how many don't use a computer now!

To generalise a little, the computer invaded our lives around ten to fifteen years ago. Would this be correct? Do we all agree that it has become integral to our lives now – for communication, for information, for pleasure and perhaps for 'edutainment'?

In the meantime, we have witnessed waves of technological variants and/or configurations come and go, some of these used for education. Several have not necessarily involved the computer (e.g. audioconferencing or telelearning, radio, television or broadcast television, videotex (or teletext), talking book, videoconferencing, videophone, photo-CD, satellite television and interactive satellite television)

The second wave of technologies incorporated the computer in some way. It may have involved software or authoring packages, simulations or games, wordprocessing or databases. The computer may have been coupled with other media, audio or video, to improve efficacy, but the application of the computer to linear presentation denied it one of its greatest strengths: randomness. Over the last fifteen years, we have seen developments – and, in many cases, used them in languages – such as multilingual wordprocessing, synthetic speech and digitisation, speech recognition, laser disc and interactive video, audiographics, the interactive book, bulletin boards and email, computer conferencing, desktop videoconferencing and machine translation.

Some of these had short life spans, while others have been compatible with or have entered the next level: interactive multimedia. Some examples of this which we enjoy personally or professionally might be CD-ROM, electronic texts, CD-Interactive, touchscreen, multimedia authoring shells, laboratories, and DVD.

We must remember however, that in the context of electronic networks and technology, access is reliant upon the availability of the infrastructures of electricity, telephony and computing.

4.1 Reality

The reality is that many people across the globe do not have access to electricity and, in 1997, half the world's population had never used a telephone.

If half the human race have not used a telephone, what percentage would have never used a computer? 50 percent, 75 percent, 90 percent, more?

As a partial answer to this question, we read that there were 385 million accessing the Internet in 2000 (Wyatt, 2001a: 46). This is 6.4% (at most) of the global population but doesn't necessarily cover all computer users.

What does this tell us? First and foremost, it emphasises the inequalities of existence as the chasm between the 'haves' and the 'have-nots' broadens. This chasm often reflects the other existential injustices of food and famine, wealth and poverty, health and disease, education and illiteracy. We are among the fortunate, the educated, the technologically rich, whatever our nationality. For most of the world's population, this is not so. A salutary thought, isn't it?

Where does this leave us? It certainly informs us that the technologies we enjoy place us apart from the majority of the world's people. While many others will join this technological evolution, it is likely that we will continue to advance within the spiral, further widening the aforementioned chasm.

It also underlines the magnitude of the task before us, as we try to bring about a more egalitarian global society. As the Director-General of UNESCO points out, "the new information and communication technologies represent for UNESCO at once a formidable opportunity and an ethical challenge because of their inherent dangers in terms of cultural uniformization and impoverishment, or excessive commercialization" (Matsuura, 2000: 3).

Clearly, the major challenge facing us in the context of technology is equity of access.

I would recommend that:

- a concerted effort be made to increase access globally to the infrastructures of electricity, telephony and computing
- steps continue to be taken at the international level to enhance the possibility of egalitarian access to Information (and) Communication Technology (ICT)
- serious consideration be given to wireless and/or microwave access to the above technologies, especially where the infrastructure is not yet in place
- any "national strategy for languages should plan for full exploitation of the potential of new technologies and the explicit inclusion of languages in emerging key national ICT initiatives" (Nuffield, 2000: 96)

Let us not forget that many of our young people are way ahead of most of us in computer skills and technological literacy and we need to tap into this technological know-how. An instance of cutting-edge practice, is the use of Powerpoint by primary students to deliver the traditional "show and tell"

4.2 The Internet and the World Wide Web

While many of us have used computers for some time for word-processing, databases and spreadsheets, the emergent technological phenomenon of the 1990s was the Internet. This phenomenon, invented in 1961, has proceeded through four "ages":

• 1970s: scientists' playground

• late 1970s-circa 1987: Internet as a community

circa 1987–1993: general academic resource

• 1993-: commercial information infrastructure (with the availability of the

Web)

(Wyatt, 2001b: 45)

It now provides those of us who can access it with a wealth of information, almost instantaneous or synchronous electronic communication, the potential for entertainment and the challenge of tackling technology ... as we develop our personalised home pages and websites.

The language of the Internet is English. In fact, we are informed that 80 percent of Web content and traffic was in English (Graddol, 1997a: 50; www.soc.org). It is important to note that this situation is paralleled in the Deaf community, where "there is a fear that ASL (i.e. American Sign Language) will take over the other sign languages of the world because of its presence on the Web, compared with the same fear of English being the dominant language on the Web" (Mannington, 2001: 1).

This preponderance of English on the Web is under threat, and should be. But the languages where Web usage is increasing are far less the other languages of Europe – except Spanish, largely because of Latin America – than some of the languages of Asia. Chinese, in particular, and Japanese are occupying larger Web content as wordprocessing packages for ideographic languages become more sophisticated and newspapers come online. It is predicted, for example, that by 2007 Chinese content will exceed that of English.

While an estimated 80 percent of Web content in 1997 was in English, this is expected to halve by 2003 (GEN-Global English Newsletter 5, 1999: 2). Furthermore, it is already being predicted that English will become a minority language on the Web in the foreseeable future. At the same time, it is estimated that around 500 languages currently have an Internet presence (Crystal, 2000: 142).

In the meantime, Crystal tells us that "... with the Internet, everyone is equal" (Crystal, 2001: 142), but this is only true if those wishing to use and publish on it have access to the infrastructures of electricity, telephony and relevant technology – and have the essential skills to surf and/or create on the Web.

A passing thought: how many websites (or URLs) have you seen which use a language other than English, include accents or use a script other than Roman? ...

Thus, it is recommended that:

- the issue of equity of access be addressed effectively
- · the greater diversity of languages used on the Web be encouraged
- · access to multilingual shareware upgrades be encouraged and publicised

4.2.1 Communication and Information

Electronic mail (or email) has been a godsend for effective communication. "Data traffic, it is claimed, has now overtaken voice traffic in the developed world" (Graddol, 1997b: 16). The benefits of email – when the messages arrive, if we know – are obvious, but a by-product of this technological advance threatens the linguistic diversity which we hold so dear.

Another aspect of electronic communication is synchronous or asynchronous interaction through bulletin boards, chat programs, discussion groups, etc, such as NetMeeting, ICQ and others.

An increasing number of individuals use the Web to access information for professional, educational, entertainment or personal purposes. One would expect this trend to continue, despite the lack of quality control, censorship (in many areas) and the comparatively small amount of quality material available. But there is some quality there and, for research in particular, a degree of currency reminiscent of the microfiche systems of the past. As a result, one would expect Web usage to further increase, with the encouragement of business, education and finance, despite predictions of doom for the dotcom era ...

Clearly, the languages of websites, of data sources, drive language usage on the Internet – and will probably have an effect on language policy, both on and off the Web.

We must remember that the content of English on the Web has not decreased. It has increased. It is just that the use of other languages (collectively) has increased disproportionately.

As I pointed out, electronic **communication** is now more prolific than old-fashioned means of written exchange in the developed world, but how many email addresses have you seen which use a language other than English, a script other than Roman, and include accents?...

Consequently, it is recommended that:

- individuals at all levels be given access to education and training in the uses of email, where
 possible
- multilingual communication platforms, such as ICQ (www.icq.com) with a choice of fifteen languages, be publicised and replicated as required
- such platforms be used and encouraged to expand the choice of languages available
- a qualitative and annotated database of such programs be created and publicised with recommendations for usage
- pressure be brought to bear on the providers of all such programs to ensure the highest degree of multilingualism
- · a common platform for encoding standards for multilingualism in email be explored

A key use of the Web is to access and share information.

It is recommended that:

- linguistic diversity on the Web be seen as a priority by all, with the desirable outcome being to see all languages represented
- · quality websites be developed and publicised in languages other than English
- language specific websites for languages other than English such as TennesseeBob's Globe-Gate for French and other languages (www.globegate.org/french/globe.html) – be publicised and recommended
- a critical database of quality language specific websites be created and publicised, not only for information but also to provide examples of good practice
- groups, such as language specific language teacher associations, be resourced to develop
 websites for their languages, as has been done in Australia with LOTElinx which includes 21
 languages (www.lotelinx.vic.edu.au)
- websites be created for minority and endangered languages and that these be publicised as focal points for the expansion of these languages on the Web
- websites for sign languages, including dictionaries, (e.g. www.handspeak.com), also be developed and publicised
- the developers of all language specific websites be encouraged to establish hyperlinks to other quality websites of the same language
- catalogues of language specific resources be created and housed on accessible websites of associations, libraries, etc, and that the sources of these be identified, possibly through hyperlinks
- multilingual websites such as the website of the State Library of Victoria (www.openroad. vic.gov.au/), which offers navigation in eleven languages, including Arabic, Chinese and Russian be encouraged and created
- a critical database of quality multilingual websites be created and publicised, not only for information but also to provide examples of good practice
- groups be encouraged to undertake the critical role of filtering quality websites from those that are bad and that this information be made available and hyperlinks be established as relevant, such as has been done by Department of Education, Employment and Training (www.sofweb.vic.edu.au/resource/reslote.htm)
- initiatives, such as Babel (www.isoc.org), be publicised and encouraged to expand multilingualism on the Web and facilitate the development of websites in a range of languages

4.2.2 Hardware and Software

We mentioned previously the obvious need for greater access to the infrastructures of electricity, telephony and computing. While we anticipate the convergence of television, telephony and computing in the imminent digital era, this will not help those who have none of these.

For those who do, we echo the need for increased bandwidth to facilitate speedier access to more voluminous items, graphics, images, music and sound, with the emergence of video mail. One acknowledges the futility of these recommendations in the face of the millions across the globe unable to access computers. On another level, equity of access becomes relevant again.

While computers are soon superseded, generations of new software occur more frequently, leaving users with the aggravating need to upgrade their packages. Driven by mega-conglomerates like Microsoft, this appears to be an unending spiral as the interrelationship between programs necessitates further spending – and increased profits to the makers. The increasing complexity of software packages ensures the challenge of keeping abreast of developments.

On the issue of hardware, it is recommended that:

- access to up-to-date computers be assured for students in those countries where machines are available
- · wherever possible, compatibility of powerful machines be guaranteed
- the use of writing tablets be explored fully as a potential time-saving means of wordprocessing in ideographic languages
- voice-activated computers as they become more accessible, less expensive, more powerful and accurate be explored to facilitate a greater spread of languages and simpler use

In the context of **software**, we cannot overlook the curse of the 21st century: time. We are all extremely busy and time is of the essence. With keyboarding skills, using computers in English and similar languages can be quite easy and time-effective. With the increase in the number of characters, whether Roman, Cyrillic or other, the task becomes more difficult, more time-consuming. And when we turn to ideographic languages, what may be an easy task in English becomes an onerous chore. We have all heard of native speakers of Chinese or Japanese, communicating in English (or pinyin, romaji) by email, as this is less time-consuming.

In a recent experiment with a friend, who is a native speaker of Mandarin, I gave her a short text in Chinese. I then asked her to wordprocess this text. It took her ten minutes, laboriously pronouncing the Chinese characters, transferring these to pinyin on the qwerty keyboard, which gave her a series of options of Chinese characters, from which she chose the correct one by clicking the appropriate number on the keyboard. This was done for every character. I then asked her to write the Chinese text by hand. This took her 50 seconds. The resultant equation: it took her 12 times as long to wordprocess a three line text in Chinese as it did for her to write it!

Should I also have been surprised during a recent visit to a technology centre in Moscow to find the same qwerty keyboard, with Cyrillic characters printed on some keys, or a keyboard for Arabic in a classroom of the Victorian School of Languages, following the same pattern? ...

A key software issue is the characters used for a language. With English being the dominant language of software development, the coverage of accents and non-Roman alphabets is less rigorous. Multilingual software packages (e.g. Accent) have existed for some years, including a wide range of languages, different fonts and ready transfer across Roman, Cyrillic and others, as well as ideographic scripts.

It is recommended that:

- software developers (...) become more multilingual (Crystal, 2000: 142)
- we control, formalise and place the user before the software developer to increase the potential for multilingual usage
- attention be given to the development of software packages which are less time-consuming and labour-intensive for larger alphabets and for script languages
- writing recognition software programs be explored for the potential they may have in reducing the time to wordprocess in ideographic and other languages
- sophisticated software packages be developed for non-Roman alphabet languages in rigorous consultation with speakers and users of these languages
- more comprehensive coding conventions for non-Roman alphabets be implemented (Crystal, 2000: 142)
- versatility of cross-language programs be recognised as a priority for action by software developers

- the further potential of HTML be explored with a view to eradicating the challenges identified above
- · quality multilingual software packages be identified, publicised and used

4.2.3 Websearchers

As the use of languages on the Web diversifies, we already witness the introduction of multilingual access through search engines (exploring up to 4 percent of Web content).

The current wave of search engines or websearchers is likely to be supplanted by upgraded multilingual versions and more powerful meta-searchers, such as www.dogpile.com, which search through existing search engines, and www.wal.hello.com, which does the same in forty languages.

As this occurs, it is recommended that:

- we ensure that the multilingual facility not only continues to exist but is expanded to become more powerful, more efficient and more egalitarian
- of the dozens of search engines available, we recognise and encourage those which have a clear facility for searching in languages other than English, such as AltaVista which offers a range of 25 languages and includes access to Babelfish (www.babelfish.altavista.com), and Yahoo
- a hierarchical database be created and publicised of websearchers which offer quality access to a range of languages, and that these services be recommended
- the potential of powerful search engines with quality assurance such as the Education Channel (www.education.vic.gov.au/ch/other_languages.asp), with hyperlinks to sites in 22 languages – be explored across languages
- global multilingualism be retained in the context of technological advance, that they are
 integrally interrelated so that any future successes in technological development carry with it
 the linguistic diversity we are promoting

5. The Teaching Profession

I am the average age of not only language teachers but all teachers in Australia. At 49, the tragedy of this is not that I have aged, but that I am too old to be the average age of teachers. This situation is reflected elsewhere. What we need is the youth – and the enthusiasm, refreshing ideas and new attitudes to current theory and practice in language teaching – coming into the profession to counterbalance the experience and expertise of those nearing the end of their careers. We need the balance, the blend, the beauty of what the combination can provide for our students.

In some countries, this is not happening for languages. While those of us of my age will soon be gone – retired or resigned, promoted or packaged, or dead! In some areas of the globe, the situation is approaching a crisis.

5.1 Teachers

Aspects of the crisis include:

- · the aging of the profession
- a shortage of teachers and significant attrition rates in language teachers
- many retirements in the near future in several countries, exacerbated by early retirement schemes in some countries, such as the 85 factor in Canada
- the disappearance of teacher graduates to other countries (Cunningham, 2000b: 15)
- the qualifications of teachers and the lack of satisfactory qualifications in some cases (Nunan, 1999a: 1)

- many teachers of TESOL who have no training whatsoever (Nunan, 1999b: 1).
- a shortage of qualified, professional teachers of French, for example, in the USA (Lipton, 2000: 3)

We can be negative and pessimistic about the age and shortage of teachers, but that does not help. Let's be positive and creative! There is both the need and the opportunity to replace many aging educators, such as myself, who would be facing retirement over the next decade or so.

The sufficient supply of excellent teachers is pivotal to the future of the profession. What is required to achieve this are:

- the creation of teacher recruitment task forces
- · controlled standards of practice and certification
- an agreed theoretical and empirical base (Nunan, 1999a: 1)
- the establishment of standards of practice and certification (Nunan, 1999a: 1)
- quality of teaching and professionalism
- mandatory quality assurance (Cunningham, 2000b: 17)
- linguistic proficiency
- · empathy and compassion
- renewed optimism in the profession

5.2 Students

The most important element in teaching languages is the student. While I believe that the most effective means of getting students in language classes is government policy which underwrites and resources language study, the most effective means of keeping students in classes is the personal challenge of the teacher. Some trends which need to be addressed are:

- insufficient numbers of students choosing languages in their primary/secondary schooling
- student attrition rates in courses for languages other than English
- enrolments per 100 students (in languages) having dropped from 16.1 in 1960 to 7.6 in 1995 in the USA (GEN-Global English Newsletter 5, 1999: 5).
- insufficient numbers of students electing to pursue language courses as part of their tertiary degrees
- the number of students decreasing considerably in some countries (e.g. Germany), discouraging Governments from offering (enough) new positions
- the international mobility and potential employability of other high-profile, more lucrative professions

The objective, clearly, is to motivate students to want to study languages. Some suggestions are:

- · an early start to language learning, notably in the primary sector
- compulsory language study for a significant period of schooling
- a focus on transparent and cohesive strategies for continuity between levels of schooling
- increased retention rates in language classes at all levels
- · a focus on areas of interest and evolving (preferred) learning styles of students
- teaching strategies to invoke elements pertinent to modern media and technological developments
- · a consideration of multiple intelligences theory and practice

5.3 Teacher Training

The future of the profession depends upon its rejuvenation. Some concerns for consideration include:

- · the need to pay for tertiary education
- · the motivation of secondary and tertiary students to become teachers
- secondary graduates not being attracted in sufficient number to tertiary pathways which include languages (Cunningham, 2000b: 14)
- insufficient numbers of students identifying language teaching as a career option either during or at the end of their university studies
- the challenge of attracting teachers to the profession

The solutions are evident where languages have status, strong policy is in place, sufficient resources are allocated, quality assurance is mandatory and there is united support of government, the community, parents, teachers and students of languages.

To ensure a sufficient number of excellent language teachers, teacher pre-service and inservice is critical. Some recommendations include:

- · the provision of free (or heavily subsidised) tertiary education
- the existence of advanced education and training, standards of practice and certification (Nunan, 1999a/b: 1), sound pedagogy, effective teaching tools, excellent curriculum, appropriate assessment and reporting practices
- the provision of professional development at minimal or no cost
- a high-profile campaign to attract more language teachers to all sectors of education by implementing a series of short- and long-term measures (Nuffield, 2000: 95)
- where necessary, teaching being publicised in the wider community and resourced as an attractive profession
- effective planning and the training of a new cohort of teachers skilled not only in their chosen curricular areas, but also in the uses of ICT (where possible) to enhance their pedagogical skills
- ICT as a major focus of professional development for existing teachers in those countries where the technology is available and accessible
- strict codes of practice in the teaching profession and in the use of ICT
- checklists for skills in technology in teacher training, such as that proposed in Debski & Levy (1999: 352–353)
- the encouragement and publicity of projects collecting data on language teaching internationally and other relevant fields, such as that of the Centre for Information on Language Teaching and Research (CILT) (www.linguanet.org.uk) and Linguanet (www.acdijon.fr/crdp/conseil/linguane.htm)
- enhanced sharing of multilingual information, resources, etc, as a reality on the Web

5.4 Conditions

We are aware of many of the causes of the shortage across primary, secondary and tertiary levels. In Australia, for example, the number of languages graduates undertaking qualifications for education is minuscule, when faced with the projected demand over the next decade.

As more and more demands are placed on educators at all levels and, in the face of public attitudes often unsupportive of teachers, the past gloss has disappeared from the teaching profes-

sion in the eyes of many potential educators. Teacher shortages threaten in many countries for a range of reasons:

- · the negative atmosphere prevailing in schools in some parts of the world
- · perceptions of inadequate salaries
- · unavailable vacancies in desired locations
- · fixed or short-term contracts
- · cuts to teacher employment despite increasing student enrolment
- · unforgiving demands
- · more (administrative) demands placed on teachers at the primary, secondary and tertiary levels
- · increased allotments and larger class sizes
- professors, elite educators, having to become managers, administrators, finance experts in a dollar-driven environment
- the cuts effected by razor gangs in a reign of economic rationalism

Teaching conditions require attention in:

- the allocation of sufficient resources
- · essential incentives being put in place
- appropriate or increased salaries being offered (as in Victoria, Australia, leading to a 25% increase in students opting for tertiary courses in education in 2001)
- · reasonable workloads and an elevation in prestige

5.5 Curriculum

The curriculum content is also very important for the retention of students as they proceed through the various levels of education and for the longevity of the profession. Some issues include:

- · changes and cuts to the curriculum
- differences from country to country
- · issues with terminology and criteria
- · allegations of a 'crowded curriculum'

The content of language courses offers the key ingredient in attracting and retaining student participation, interest and learning. Some areas include:

- a relevant and motivating curriculum
- · informed and flexible rationale
- · what is taught and how it is taught
- · meaningful and transparent assessment
- · informative and forwardlooking reporting
- effective strategies to ensure curricular coherence and continuous learning from primary through secondary to tertiary programs

While empirical data is still scant on the effectiveness of using modern technologies for language teaching, we have a gut feeling that not only motivation but also competence in learning would be enhanced by linguistic and cultural reading and research, for example, which calls upon the resources of the Web and encourages email exchange with learners and speakers of the language elsewhere across the globe.

5.6 Policy, Programs and Perceptions

The Director-General of UNESCO correctly identifies that education for all is without a doubt the most crucial challenge of our day, as knowledge is at the centre of economic development and social transformations (Matsuura, 2000: 2). At the same time, we read in the *UNESCO Courier* (November 2000) of the privatisation of education (pp. 16ff).

In line with priorities already identified and being undertaken by UNESCO, it is recommended that:

- UNESCO be the forum through which to promote and uphold the primary and overriding
 responsibility of the State to ensure the right to quality education for all, taking advantage
 nonetheless of the many new possibilities being made through partnerships with the private
 sector, civil society and other actors (Matsuura 2000: 2)
- · the importance of cultural and linguistic diversity be a clear focus of policy development

5.6.1 Policy

The most effective means of retaining the existing linguistic wealth globally is to have linguistic diversity, the promotion, teaching and learning of languages, enshrined in government policy and law where there is a priority commitment made to fund the education and support for languages in the wider community.

This is an ambitious requirement, especially given the regrettably low number of languages policies in place across the globe – and in the paucity of resources allocated.

Issues impacting on the profession in the area of policy are:

- · lack of policy and government support
- Government refusal to acknowledge an impending teacher shortage (Cunningham, 2000b: 15)
- · lack of planning to replace those teachers leaving the profession

Excellent educational policies have existed across the globe and would serve as sound models from which to develop cohesive policies for education by States, regions, unions and globally. To assist us in the realisation of this cause, I exhort all to read and consider the findings and recommendations of the Nuffield Languages Enquiry, published in 2000 as Languages: the Next Generation. This thorough study provides excellent, insightful targets for action, and should be used for extrapolation globally, where required.

What we need to do in the context of policy is:

- designate languages as a key skill and, in consultation with the many sectors and interests
 which contribute to the nation's economic and social wellbeing, (should) formulate a national
 strategy for the development of capability in languages ... (Nuffield, 2000: 84)
- encourage States to enact policies which are inclusive and non-discriminatory reflecting UNESCO's second strategic axis of enhancing diversity
- · encourage States to adequately resource the existential and social needs of their constituents
- encourage States to create, enact and implement non-discriminatory educational policies which adopt and fully resource the quality teaching of languages
- encourage States to give due consideration to the teaching of several languages, whether these are of local, strategic or international importance
- ensure that UNESCO, member NGO's and other relevant agencies assist States in the development of the above policies

5.6.2 Programs

Excellent programs exist at all levels across the globe. A major initiative is the project being led by the Council of Europe, that of the European Year of Languages – 2001 (EYL-2001). The major aims of this project, which have obvious global relevance, are:

- to increase awareness and appreciation among young people and adults, including parents, policy deciders and those responsible for language teaching, of the richness of Europe's linguistic heritage
- to celebrate linguistic diversity and to promote it by motivating European citizens to develop
 plurilingualism, that is, to diversify their learning of languages including less widely used and
 taught languages, whilst also protecting and encouraging multilingualism in European societies
- to encourage language learning on a lifelong basis, not only by creating an awareness of its necessity, but also by providing sufficient information concerning ways and possibilities of learning, depending on regional and national situations and possibilities (Herold, 1999; 1)

As a result, it is desirable that:

- the activities of the EYL-2001 be extended beyond the calendar year of 2001
- similar projects (possibly modelled on the EYL-2001) be initiated in other areas of the globe to increase educational and community awareness of the value of languages and linguistic diversity

We can also draw upon exemplary practice in the teaching of languages. One educational model to epitomise the objectives dear to us, which I would like to share with you, is a school in Australia. Established in 1935, the Victorian School of Languages (VSL) (www.vsl.vic.edu.au) teaches languages in an out of hours context to those students who cannot access their language of choice in the mainstream school.

Over the following 65 years, the VSL evolved and grew to the extent that now 40 languages are taught – excluding English – to 13000 students in 650 classes across 30 metropolitan and rural centres. Six of these languages, plus Latin, are taught to another 1300 students via distance mode throughout the State of Victoria. The students are generally of school age, but there are some adults enrolled.

We would recommend that:

- the quality teaching of languages be resourced at the primary, secondary and tertiary levels of public education (cf. Nuffield, 2000: 90–93: Recommendations #7–10)
- wherever possible, access to technology (ICT) be available to students at all levels of primary, secondary and tertiary education
- courses in keyboarding skills continue to be available at all levels of education above the lower primary level, where possible
- strict quality controls be placed on the content and delivery mechanisms of online courses at whatever level of learning
- children, to enhance future prospects and be flexible lifelong learners, should acquire not only skills in literacy and numeracy but also in technology, before the end of primary education.
- initiatives, such as the Global Classroom (www.sofweb.vic.edu.au/gc) of the Department of Education, Employment and Training in Victoria (Australia), be publicised and replicated to improve student collegiality and learning internationally
- the example of the Victorian School of Languages be publicised and promoted as a model upon

which similar schools could be created elsewhere to address the language needs of primary and secondary students unable to access their language of choice in mainstream schools

5.6.3 Perceptions

External to education per se but having a telling impact on the profession, are the issues of:

- declining prestige, questionable status and decreasing attractiveness of the languages profession
- teacher bashing by authorities and in the media in some countries (e.g. Canada)
- · public attitudes often unsupportive of teachers

Government education policy requires change in many settings, with the desirable ramification on the perception of teachers and teaching. We need:

- strong policy in place, ensuring linguistic diversity, the promotion and teaching of languages are a priority
- an unquestioned commitment in the wider community to fund the education of and support for languages
- an adequate budget allocation for language teaching at the primary, secondary and tertiary levels
- campaigns to raise the profile of languages (...), promoting positive attitudes towards languages and language learning, raising their potential at all levels, and fostering a culture where using more than one language is an attainable goal for the majority (Nuffield, 2000: 86)
- languages supremo(s) (to) encourage key national organisations, providers of languages education and employer interests to form strategic partnerships in order to match provision with national needs and promote the link between languages and employability (Nuffield, 2000: 87)
- adequate staffing levels to ensure the employment of a sufficient number of excellent teachers to enable all students to access quality language programs
- demand for at least another language beyond English in policies
- · teaching to be the basis of language learning and language policies
- the discouragement and downsizing of outsourcing of education generally and language programs specifically
- to appoint language(s) supremo(s) whose task would be to work with government at the
 highest level, with government departments, national agencies, employers and the general
 public, to ensure effective implementation of (the) national strategy for languages (Nuffield,
 2000: 85)
- to approach the media and the development of strategies in this context (as TESOL had successfully employed a lobbyist, as reported by David Nunan)
- to recognise solutions evident where languages have status
- united support of government, the community, parents, teachers and students of languages (Cunningham, 2000b: 17)
- media and publicity campaigns to attract and recruit teachers (as is happening in Victoria, Australia)
- · the reintroduction of an entry requirement of successful language study to tertiary courses

5.7 Associations

The rejuvenation of the cohort of language teachers is reflected by the need to encourage young

teachers to join our associations, adding their enthusiasm and recent training to the wisdom and expertise that we have accumulated over the years (Cunningham, 2000b: 17).

Strategies to make the teaching profession more attractive provide some solutions, but other initiatives should also be implemented to motivate secondary and tertiary students to pursue language studies with the ultimate destination of teaching languages. Associations are well placed to assume responsibility for some of these strategies:

- the organisation by associations of professional development activities which address the perceived needs of language teachers
- the encouragement of all language teachers to give a little in sharing their accomplishments in the classroom
- the encouragement of all language teachers to participate in professional development activities
 of teacher associations and to publish in the journals of associations or on their websites
- the encouragement of all language teachers to offer papers, lead workshops or report on best practice in their classrooms
- free membership for trainee teachers, the reduction of fees for young teachers and free membership for one year to faculty heads (Helen Coltrinari)
- pro-active involvement of younger colleagues, encouraging them, building up their selfconfidence, motivating them to become part of a larger, skilled international profession
- the encouragement of younger colleagues to participate in our congresses and other events, by extending a hand of friendship, including them, introducing them to others, once they are there, and the forging of collegiate and personal friendships
- the organisation of international and/or cross-cultural activities to bring language teachers together, (such as the FIPLV International Workshop on the Teaching of Languages for Peace, which brought together 35 teachers from 27 countries in Graz in 1998)
- active involvement in international projects, such as the European Year of Languages 2001, Linguapax and others

6. Conclusion

While global multilingualism is a reality, it is under siege. On the one hand, languages are disappearing rapidly from the face of the globe; on the other, the emergence of English as the international *lingua franca* is having a negative impact on language choice, planning and policy. At the same time, the predictable backlash against global English (and its evolving derivative Englishes) is already visible in some countries, in an attempt to quarantine the purity or existence of some of the world's other languages.

We need to be aware of these threats and tensions, as we are, to fight them – not alone, but by enlisting the support of the cohorts across the globe who have a vested interest in their languages being retained and even expanding on a globe with diminishing resources, challenged by increasing overpopulation.

As we face conflicting advice, juxtaposing trends and guaranteed uncertainty, the message is clear: we must retain the balance, the diversity of languages, the multilingual cornerstone of this new millennium founded not only on economic objectives but also on international, intercultural harmony. Predicting the future, as we know, is fraught with minefields, subject to the vagaries of change, preference, conflict, civil insurrection and converse emergence of new, unified states (Cunningham, 2000b: 6).

Technology, a twin-edged sword in this context, threatens to minimise language diversity while maximising communication possibilities in a wealth of languages. One way in which we can act is

to redress the imbalance of languages used, encouraging more equitable access to and usage of the technology.

We must make a decided effort to retain the linguistic wealth currently enjoyed by the globe, by impacting on the issues of policy and planning, teacher training and development, and student learning. This presupposes a concerted move towards linguistic diversity, language retention and retrieval, and policy practice favourable to these objectives.

In this period of the consolidating global metropolis, of more effective intercontinental travel, of globalised markets and international conglomerates, travel is likely to be commonplace for many of the future computerised world. The young learner must be given the wherewithal to compete, despite protestations of irrelevance to a personal future. Again, languages have an integral place in the future of the globe.

Of paramount importance, we need to act now to safeguard the priority and prominence of language teaching in education, recruit graduates to the profession and share with policy decision-makers across the globe not only an awareness of a critical situation, but also provide strategies and solutions to redress the situation.

What we, as leaders, as policy-makers and as language educators, can do is to take all reasonable steps to ensure that the linguistic diversity of our multilingual globe is ensured and enhanced for future generations.

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