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*** START OF THE PROJECT GUTENBERG EBOOK INTERVIEWS (1998-2001) ***

Produced by Al Haines

INTERVIEWS (1998-2001)

MARIE LEBERT

NEF, University of Toronto, 2001

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What do they do on the Web? What do they think of the Internet, copyright, multilingualism, the future of paper, the e-book, the information society, etc.? A series of interviews between 1998 and 2001 with writers, journalists, publishers, booksellers, librarians, professors, researchers, linguists, etc. There is also a French version (with more interviews): Entretiens (1998-2001), and a Spanish version (with a few interviews): Entrevistas (1998-2001). The original versions are available on the NEF, University of Toronto: <http://www.etudes-francaises.net/entretiens/index.htm>

TABLE

(*) Interviews translated by Marie Lebert (with Greg Chamberlain).

Guy Antoine (New Jersey) / Founder of Windows on Haiti, a source of positive information about Haitian culture

Arlette Attali * (Paris) / Head of Research and Internet Projects at the INaLF (Institut national de la langue française - National Institute of the French Language)

Robert Beard (Pennsylvania) / Co-Founder of yourDictionary.com, a major language portal

Michael Behrens (Bielefeld, Germany) / In charge of the digital library of

Guy Bertrand & Cynthia Delisle * (Montreal) / Respectively scientific director and consultant at the CEVEIL (Centre d'expertise et de veille inforoutes et langues - Centre for Assessment and Monitoring of Information Highways and Languages)

Alain Bron * (Paris) / Information systems consultant and writer. The Internet is one of the "characters" of his novel Sanguine sur toile (Sanguine on the Web)

Tyler Chambers (Boston) / Creator of The Human-Languages Page (who became iLoveLanguages in 2001) and The Internet Dictionary Project

Alain Clavet * (Ottawa) / Policy analyst with the Office of the Commissioner of the Official Languages in Canada

Jean-Pierre Cloutier * (Montreal) / Editor of Chroniques de Cybérie, a weekly report of Internet news

Kushal Dave * (Yale) / Student at Yale University

Bruno Didier * (Paris) / Webmaster of the Institute Pasteur Library

Catherine Domain * (Paris) / Founder of the Ulysses Bookstore (Librairie Ulysse), the oldest travel bookstore in the world

Helen Dry (Michigan) / Moderator of The Linguist List

Bill Dunlap (Paris & San Francisco) / Founder of Global Reach, a methodology for companies to expand their Internet presence through a multilingual website

Jacques Gauchey * (San Francisco) / Specialist in the information technology industry, "facilitator" between the United States and Europe, and journalist

Marcel Grangier * (Bern) / Head of the French Section of the Swiss Federal Government's Central Linguistic Services

Barbara F. Grimes (Hawaii) / Editor of Ethnologue: Languages of the World

Michael Hart (Illinois) / Founder of Project Gutenberg, the oldest digital library on the Internet

Roberto Hernández Montoya * (Caracas) / Head of the digital library of the electronic magazine Venezuela Analítica

Randy Hobler (Dobbs Ferry, New York) / Internet Marketing Consultant. Worked at Globalink, a company specialized in language translation software and services

Eduard Hovy (Marina del Rey, California) / Head of the Natural Language Group at the Information Sciences Institute of the University of Southern California (USC/ISI)

Christiane Jadelot * (Nancy, France) / Researcher at the INaLF (Institut national de la langue française - National Institute of the French Language)

Jean-Paul * (Paris) / Webmaster of cotres furtifs (Furtive Cutter Ships), a website that tells stories in 3D

Brian King / Director of the WorldWide Language Institute, who initiated NetGlos (The Multilingual Glossary of Internet Terminology)

Geoffrey Kingscott (London) / Co-editor of the online magazine Language Today

Steven Krauwer (Utrecht, Netherlands) / Coordinator of the European Network of Excellence in Human Language Technologies (ELSNET)

Michael Martin (Berkeley, California) / Founder and president of Travlang, a site dedicated both to travel and languages

Tim McKenna (Geneva) / Thinks and writes about the complexity of truth in a world of flux

Yoshi Mikami (Fujisawa, Japan) / Creator of The Languages of the World by Computers and the Internet, and co-author of The Multilingual Web Guide

John Mark Ockerbloom (Pennsylvania) / Founder of The On-Line Books Page, listing freely-available

online books

Caoimhín P. Ó Donnáile (Island of Skye, Scotland) / Maintains a list of european minority languages on the main website with information on Scottish Gaelic

Jacques Pataillot * (Paris) / Management Consultant with the firm Cap Gemini Ernst & Young

Peter Raggett (Paris) / Head of the Centre for Documentation and Information (CDI) of the Organisation for Economic Co-operation and Development (OECD)

Henri Slettenhaar (Geneva) / Professor in communication technology at Webster University

Murray Suid (Palo Alto, California) / Writer, works for EDVantage Software, an Internet company specialized in educational software

June Thompson (Hull, United Kingdom) / Manager of the C&IT (Communications & Information Technology) Centre at the University of Hull

Paul Treanor (Netherlands) / Created a personal website with a section on the future of languages in Europe

François Vadrot * (Paris) / Founder, chairman and managing director of FTPress (French Touch Press), a cybermedia company

Robert Ware (Colorado) / Creator of Onelook Dictionaries, a fast finder of words in 650 dictionaries

GUY ANTOINE (New Jersey)

#Founder of Windows on Haiti, a source of positive information about Haitian culture

*Interview of November 22, 1999

= Can you tell us about Windows on Haiti?

At the end of April 1998, I launched an Internet site, simple in concept, but ambitious in its reach and overall scope. The site aims to be a major source of information about Haitian culture, and a tool to counter the persistently negative images of Haiti from the traditional media. The scope of this effort extends beyond mere commentary to the diversity of arts and history, cuisine and music, literature and reminiscences of traditional Haitian life. It is punctuated by a different sort of guestbook where the visitor's personal testimony of his ties to Haiti is highly encouraged. In short, the site opens some new windows to the culture of Haiti.

= What exactly is your professional activity?

For the past 20 years, my professional activity has consisted of working with computers in various areas: system design, programming, networking, troubleshooting, assembling PCs, and web design. Finally, my primary web site, which has almost overnight become a hub of connectivity between diverse groups and individuals interested in Haitian culture, has propelled me into a quasi-professional activity of information gathering, social commentary, editorial writing, and evangelism for the culture of Haiti.

= How did using the Internet change your professional and personal life?

The Internet has greatly changed both my professional and personal life. Due to the constant flow of information, I sleep very much less now than I used to. But the greatest change has been in the multiplicity of contacts in cultural, academic, and journalistic circles, as well as with ordinary people around the globe, that this activity has provided me. As a result, I am now a lot more aware of professional resources around the world, related to my activity, and of the surprising level of international fascination with Haitian culture, religion, politics, and literature. On a personal level, this also means that I have quite a few more friends than before I immersed myself in this particular activity.

= How do you see your professional future?

I see my professional future as an extension of what I do currently: using technology to enhance intercultural exchanges. I hope to associate myself with the right group of people to go beyond Haiti, and advance towards this ideal of one world, one love.

= What do you think of the debate about copyright on the Web?

The debate will continue forever, as information becomes more conspicuous than the air that we breathe and more fluid than water. These days, one can purchase the video of a film that was released just the week before, and it will not be long before one can watch scenes from one other's private life over the Net without his/her knowledge. What is daunting about the Internet is that so many are willing to do the dirty work for free, as sort of an initiation rite. This mindset will continue to exert increasing pressures on the issues of copyrights and intellectual property.

Authors will have to become a lot more creative in terms of how to control the dissemination of their work and profit from it. The best that we can do right now is to promote basic standards of professionalism, and insist at the very least that the source and authorship of any work be duly acknowledged. Technology will have to evolve to support the authorization process.

= How do you see the growth of a multilingual Web?

Very positively. It is true that for all intents and purposes English will continue to dominate the Web. This is not so bad in my view, in spite of regional sentiments to the contrary, because we do need a common language to foster communications between people the world over. That being said, I do not adopt the doomsday view that other languages will just roll over in submission. Quite the contrary. The Net can serve, first of all, as a repository of useful information on minority languages that might otherwise vanish without leaving a trace. Beyond that, I believe that it provides an incentive for people to learn languages associated with the cultures about which they are attempting to gather information. One soon realizes that the language of a people is an essential and inextricable part of its culture.

From this standpoint, I have much less faith in mechanized tools of language translation, which render words and phrases but do a poor job of conveying the soul of a people. Who are the Haitian people, for instance, without "Kreyòl" (Creole for the non-initiated), the language that has evolved and bound various African tribes transplanted in Haiti during the slavery period? It is the most palpable exponent of commonality that defines us as a people. However, it is primarily a spoken language, not a widely written one. I see the Web changing this situation more so than any traditional means of language dissemination.

In Windows on Haiti, the primary language of the site is English, but one will equally find a center of lively discussion conducted in "Kreyòl". In addition, one will find documents related to Haiti in French, in the old colonial creole, and I am open to publishing others in Spanish and other languages. I do not offer any sort of translation, but multilingualism is alive and well at the site, and I predict that this will increasingly become the norm throughout the Web.

= What is your best experience with the Internet?

People. The Web is an interconnected network of servers and personal computers, at the keyboard of which you will find a person, an individual. This has afforded me the opportunity of testing my ideas, acquiring new ones, and best of all, of forging personal friendships with people far away and eventually meeting them.

= And your worst experience?

People. I do not want to expand on that, but some personalities simply have a way of getting under your skin.

*Interview of June 29, 2001

= What has happened since our last interview?

Since our last interview, I have accepted the position of Director of Communications and Strategic Relations for Mason Integrated Technologies, a company whose main objective is to create tools for communications, and the accessibility of documents created in the world's minority languages. Due to the board's experience in the matter, Haitian Creole (Kreyol) has been a prime area of focus. Kreyol is the only national language of Haiti, and one of its two official languages, the other being French. It is hardly a minority language in the Caribbean context, since it is spoken by eight to ten million people.

Aside from those responsibilities, I have taken the promotion of Kreyol as a personal cause, since that language is the strongest of bonds uniting all Haitians, in spite of a small but disproportionately influential Haitian elite's disdainful attitude to adopting standards for the writing of Kreyol and supporting the publication of books and official communications in that language. For instance, there was recently a two-week book event in Haiti's Capital and it was promoted as "Livres en folie". Some 500 books from Haitian authors were on display, among which one could find perhaps 20 written in

Kreyol. This is within the context of France's major push to celebrate francophony among its former colonies. This plays rather well in Haiti, but directly at the expense of creolophony.

What I have created in response to those attitudes are two discussion forums on my web site, Windows on Haiti, held exclusively in Kreyol. One is for general discussions on just about everything but obviously more focused on Haiti's current socio-political problems. The other is reserved only to debates of writing standards for Kreyol. Those debates have been quite spirited and have met with the participation of a number of linguistic experts. The uniqueness of these forums is their non-academic nature. Nowhere else on the Net have I found such a willing and free exchange between experts and laymen debating the merits and standards for a language in that language itself.

= How much do you still work with paper?

As little as possible, which is still a lot. If I am dealing with a document that I want to preserve for future reference, I always print it and catalog it. It may not be available when I am away from my home office, but when I am there, I like the comfort of knowing that I can reach for it in a physical sense, and not rely solely on electronic backup, the reliability of the operating system, or my ISP (Internet service provider) for Internet access. So, for what I consider worth preserving, there is a fair amount of redundancy, and paper still has its place.

= What do you think about e-books?

Sorry, I haven't tried them yet. Perhaps because of this, it still appears to me like a very odd concept, something that the technology made possible, but for which there will not be any wide usage, except perhaps for classic reference texts. High school and college textbooks could be a useful application of the technology, in that there would be much lighter backpacks to carry. But for the sheer pleasure of reading, I can hardly imagine getting cozy with a good e-book.

= What is your definition of cyberspace?

It's literally the newest frontier for mankind, a place where everyone can claim his place, and do so with relative ease and a minimum of financial resources, before heavy inter-governmental regulations and taxation finally set in. But then, there will be another.

ARLETTE ATTALI (Paris)

#Head of Research and Internet Projects at the INaLF (Institut national de la langue française - National Institute of the French Language)

The purpose of the INaLF — part of the France's National Centre for Scientific Research (Centre national de la recherche scientifique, CNRS) — is to design research programmes on the French language, particularly its vocabulary. The INaLF's constantly expanding and revised data, processed by special computer systems, deal with all aspects of the French language: literary discourse (14th-20th centuries), everyday language (written and spoken), scientific and technical language (terminologies), and regional languages. This data, which is an very important study resource, is made available to people interested in the French language (teachers and researchers, business people, the service sector and the general public) through publications and databases.

Frantext is one of the best French textual databases on the Internet. It is a collection of about 3,000 digitized French texts from the 16th to the 20th centuries, with a search facility (Stella) for literary, linguistic, lexicographical, and stylistic research. The database, which was revamped in 1998, now has a more user-friendly interface, more efficient online help and better computing tools. A second version is an experimental section of 400 grammatically-encoded novels of 19th and 20th centuries.

*Interview of June 11, 1998 (original interview in French)

= How did using the Internet change your professional life?

At the INaLF, I was mostly building textual databases, so I had to explore websites that gave access to electronic texts and test them. I became a "textual tourist", which has good and bad sides. The tendency to go quickly from one link to another and skip through the information was a permanent danger — you have to focus on what you're looking for so as not to waste time. Using the Web has totally changed the way I work. My research is no longer just book-based and thus limited, but is expanding thanks to the electronic texts available on the Internet.

= What are your new projects?

I'd like to help develop linguistic tools linked with Frantext and make them available to teachers, researchers and students.

*Interview of January 17, 2000 (original interview in French)

= What exactly is your professional activity?

My professional activity consists in research and Internet projects, and in development of textual resources.

= What are your new projects?

- The Catalogue critique des ressources textuelles sur Internet (CCRTI) (Critical Catalogue of Textual Resources on the Internet), online since October 1999.

- Terminalf - Ressources terminologiques en langue française (Terminological resources in French), in progress.

= What do you think of the debate about copyright on the Web?

Like all debates, it is a confused debate, with no way out.

= How do you see the growth of a multilingual Web?

Europeans are making some efforts towards at least bilingualism. What are the Americans doing?

= What is your best experience with the Internet?

Finding good literary sites, such as Zvi Har'El's Jules Verne Collection, dedicated to Jules Verne (a French 19th-century novelist) or le Théâtre de la foire à Paris, dedicated to the 17th-century Fair Theatre in Paris.

ROBERT BEARD (Pennsylvania)

#Co-Founder of yourDictionary.com, a major language portal

*Interview of September 1, 1998

= How did using the Internet change your professional life?

As a language teacher, the Web represents a plethora of new resources produced by the target culture, new tools for delivering lessons (interactive Java and Shockwave exercises) and testing, which are available to students any time they have the time or interest - 24 hours a day, 7 days a week. It is also an almost limitless publication outlet for my colleagues and I, not to mention my institution.

= How do you see the growth of a multilingual Web?

There was an initial fear that the Web posed a threat to multilingualism on the Web, since HTML and other programming languages are based on English and since there are simply more websites in English than any other language. However, my websites indicate that multilingualism is very much alive and the Web may, in fact, serve as a vehicle for preserving many endangered languages. I now have links to dictionaries in 150 languages and grammars of 65 languages. Moreover, the new attention paid by browser developers to the different languages of the world will encourage even more websites in different languages.

= How do you see the future?

Ultimately all course materials, including lecture notes, exercises, moot and credit testing, grading, and interactive exercises far more effective in conveying concepts that we have not even dreamed of yet. The Web will be an encyclopedia of the world by the world for the world. There will be no information or knowledge that anyone needs that will not be available. The major hindrance to international and interpersonal understanding, personal and institutional enhancement, will be removed. It would take a wilder imagination than mine to predict the effect of this development on the nature of humankind.

*Interview of January 17, 2000

= Can you tell us about yourDictionary.com?

A Web of Online Dictionaries (WOD) is now a part of yourDictionary.com (as of February 15, 2000). The new website is an index of 1200+ dictionaries in more than 200 languages. Besides the WOD, the new website includes a word-of-the-day-feature, word games, a language chat room, the old Web of Online Grammars (now expanded to include additional language resources), the Web of Linguistic Fun, multilingual dictionaries; specialized English dictionaries; thesauri and other vocabulary aids; language identifiers and guessers, and other features; dictionary indices. YourDictionary.com will hopefully be the premiere language portal and the largest language resource site on the Web. It is now actively acquiring dictionaries and grammars of all languages with a particular focus on endangered languages. It is overseen by a blue ribbon panel of linguistic experts from all over the world.

= What exactly is your activity?

I am now a founder, officer and member of the board of yourDictionary.com, Inc. and will be retiring from Bucknell this spring at which time I must remove my sites from Bucknell's servers. I think the company will generate resources to allow my work to continue and expand.

= Has yourDictionary.com new projects and new ideas?

Indeed, yourDictionary.com has lots of new ideas. We plan to work with the Endangered Language Fund in the US and Britain to raise money for the Foundation's work and publish the results on our site. We will have language chatrooms and bulletin boards. There will be language games designed to entertain and teach fundamentals of linguistics. The Linguistic Fun page will become an on-line journal for short, interesting, yes, even entertaining, pieces on language that are based on sound linguistics by experts from all over the world.

= What do you think of the debate about copyright on the Web?

Open access is never free; someone pays the salaries of those who develop open access, public domain applications. My website has been free and free of commercial activities so long as Bucknell has provided me with a salary and free ISP services. Now that I am retiring and must remove my sites from Bucknell servers, my choices are to take the sites down, sell them, or generate revenue streams that will support the site. I have chosen the latter course. The resources will remain free of charge, only because we will be offering other services for fee. These services will be based on copyrighted properties to guarantee that the funds generated go to the source that generates them.

As for the debate (and court actions) over deep linking and the like, I think this carries copyright too far. Linking should be the decision of the website that carries the hyperlink. Websites are fair game for linking since they are on a public network. If they don't want to be on a public network, let them create a private one. This leads to the conclusion that porn sites may link to family-oriented sites, a conclusion that no doubt worries some. So long as the link does not go in the other direction, however, I see no immediate problem with this.

= How do you see the growth of a multilingual Web?

While English still dominates the Web, the growth of monolingual non-English websites is gaining strength with the various solutions to the font problems. Languages that are endangered are primarily languages without writing systems at all (only 1/3 of the world's 6,000+ languages have writing systems). I still do not see the Web contributing to the loss of language identity and still suspect it may, in the long run, contribute to strengthening it. More and more Native Americans, for example, are contacting linguists, asking them to write grammars of their language and help them put up dictionaries. For these people, the Web is an affordable boon for cultural expression.

= What is your best experience with the Internet?

My own website, whose popularity continues to astound me. I receive a dozen or so letters from visitors each day, at least half of which compliment my work. It is difficult to maintain the size of my ego but the flattery is very good for the soul. I am astounded that only 6 years away from the inception of the Web, I can find over 1200 creditable on-line dictionaries in more than 200 different languages.

= And your worst experience?

The worst experience is finding my website copied with my name removed from it. I have always been able to resolve the problem, however. My experience with the Internet has been very positive and if yourDictionary.com succeeds, it will be even more positive.

MICHAEL BEHRENS (Bielefeld, Germany)

#In charge of the digital library of the digital library of the Bielefeld University Library

* Interview of September 25, 1998

= When did you begin your digital library?

It depends what you understand this term to mean. To some here, "digital library" seems to be everything even remotely to do with the Internet. The library started its own web server in summer 1995. There's no exact date because it took some time for us to get it to work in a reasonably reliable way. Before that, it had been offering most of its services via Telnet, which wasn't used much by customers, although in theory they could have accessed a lot of material from home. But in those days hardly anybody had Internet access at home. We started digitizing rare prints from our own library, and some that were sent in via library loan, in November 1996.

= How many digitized texts do you have?

In that first phase of our attempts at digitization, starting in November 1996 and ending in June 1997, 38 rare prints were scanned as image files and made available on the Web. In the same period, there were also a few digital materials prepared as accompanying material for lectures held at the university (image files as excerpts from printed works). These are, for copyright reasons, not available outside the campus. The next step, which is just being completed, is the digitization of the *Berlinische Monatsschrift*, a German periodical from the Enlightenment, comprising 58 volumes — 2,574 articles on 30,626 pages.

A rather bigger project to digitize German periodicals from the 18th and early 19th century is planned. This will involve about a million pages. These periodicals will be not just be from this library's stock, but the project would be coordinated here and some of the technical work done here too.

GUY BERTRAND & CYNTHIA DELISLE (Montreal)

#Respectively scientific director and consultant at the CEVEIL (Centre d'expertise et de veille inforoutes et langues - Centre for Assessment and Monitoring of Information Highways and Languages)

The CEVEIL, set up in 1995, is a non-profit-making body based in Quebec whose main purpose is to think about the use and processing of languages on information highways, from a French-language viewpoint, through strategic monitoring activity and creating a network of exchanges and evaluation. The CEVEIL also focuses on the language industry in general (voice recognition, machine translation and optical character recognition, for example) and related fields such as strategic management of data, knowledge management, setting norms and standardisation. The CEVEIL is part of the CEFRIO (Centre francophone d'information des organisations - French-language Centre for Information on Organisations).

*Interview of August 23, 1998 (original interview in French)

= What did using the Internet affect the CEVEIL?

First, the Web is one of the reasons for CEVEIL's existence, because we focus on things like language use and processing on the Internet.

The Web is also where we get most of our information on the topics we're interested in. We regularly monitor sites that supply daily and weekly news. So we definitely make more use of the Internet than we do other written sources.

We also use electronic mail a great deal to keep in touch with our contributors, to obtain information and carry out projects. CEVEIL is a "network structure" which might not survive without the Internet to link all the people involved in it.

The Web is also the most important means for distributing our products to target clients — sending electronic news to our subscribers, creating an online magazine, and distributing information and documents through our website.

= How do you see the growth of a multilingual Web?

Multilingualism on the Internet is the logical and natural consequence of the diversity of human beings. Because the Web was first developed and used in the United States, it's not really surprising it started out as — and still is — essentially Anglophone. But this is beginning to change, because most new users will not have English as their mother tongue and because non-English-speaking communities

already on the Web will no longer accept the dominance of English and will want to use their own language to some extent.

We can envisage, in a few years time, a situation similar to the one in publishing concerning use of different languages. This means only a small number of languages will be used (compared to the several thousand that exist). So we think the Web should try to further support minority cultures and languages, particularly in the case of dispersed communities.

The arrival on the Internet of languages other than English, while demanding genuine readjustment and providing undeniable enrichment, emphasizes the need for linguistic tools to cope with the situation. These will emerge from research and promoting awareness in areas such as machine translation, standardization, searching for information, automatic summarizing, and so on.

= How do you see the future?

The Internet is here to stay. The arrival on it of languages other than English is also irreversible. So we have to take that into account from an economic, social, political and cultural point of view. Sectors such as advertising, vocational training, knowledge management, and work in groups or within networks will have to change. This brings us back to the need to develop really effective technology and tools to encourage exchanges in a truly multilingual global village.

*Interview of March 13, 2000 (original interview in French)

= What has happened since our first interview?

Since then, the CEVEIL has stopped putting out weekly news bulletins and its monthly magazine. This is not so much because we've changed direction but rather for want of staff and funding. We don't plan to resume those activities for the moment.

= What do you think of the debate about copyright on the Web?

Guy Bertrand: It's very important to respect copyright and it's up to the authors to decide what they want to do about it. The Web is offering more and more things for free. Authors don't have to accept that, but a growing number of them are choosing to adapt to it and are benefitting. The business models on the Web are changing very rapidly and will continue to. New ones will spring up with a strong free-of-charge content, but copyright will have to be respected in newer and more original ways by authors and providers of services and content.

Cynthia Delisle: Ideally, copyright should be respected on the Web as it is in other media such as the radio and the written press. However, the Internet raises new kinds of problems here because of the ease that data can be (re)produced and (re)distributed on a huge scale and because of the tradition of it being available for free. This tradition means people balk at paying for products and services they'd find it quite normal to pay for in other situations and they also perhaps have fewer qualms, in the context of the Net, about using pirated products. I think respecting copyright is one of the biggest issues for the future of the Net and it'll certainly be very interesting to see what solutions will emerge to deal with it.

= How do you see the growth of a multilingual Web?

Guy Bertrand: Worldwide e-commerce has grown enormously since 1998 and businesses are increasingly keen to use the languages of their potential customers, which is going to boost further this multilingual aspect. E-commerce won't take over the Web, but its importance is growing as multilingualism increases there. But the tools for multilingualism on the Web are unfortunately always one step behind.

Cynthia Delisle: I think the trend which had already begin in 1998 has now established itself and the future of the Internet is definitely going to be a multilingual one. The Net is becoming more international and it's hard to see how this can happen without it becoming linguistically and culturally more diverse. English will probably always be the Net's most frequently-used language, but the proportion of sites and pages available in other languages will steadily increase until a certain equilibrium is reached. I also quite agree with Mr Bertrand when he points out that the tools to handle this linguistic diversity are not yet ready. Machine translation, for example, has made woefully little headway in recent years. Yet the needs are growing all the time, which is why we need to step up research and development in these areas.

= What is your best experience with the Internet?

Guy Bertrand: My first one with the site www.neuromedia.com.

Cynthia Delisle: Being in regular touch with my family at little cost through e-mail while I was abroad for long periods.

= And your worst experience?

Cynthia Delisle: The problem of harassment, such as constant unsolicited personal e-mails several years ago, before servers installed spam filters.

ALAIN BRON (Paris)

#Information systems consultant and writer. The Internet is one of the "characters" of his novel *Sanguine sur toile* (*Sanguine on the Web*).

After studying engineering in France and the US and a job as head of major projects at Bull, Alain Bron is now an information systems consultant at EdF/GdF (Electricité de France / Gaz de France).

His second novel, *Sanguine sur toile* (*Sanguine on the Web*), is available in print from Editions du Choucas (published in 1999) and in PDF format from Editions 00h00.com (published in 2000). It won the Lions Club International Prize in 2000.

Alain Bron wrote another novel, *Concert pour Asmodée* (*Concert for Asmodée*) (published in 1998 by Editions La Mirandole), and a collection of psycho-sociological essays, notably *La démocratie de la solitude* (*The Democracy of Solitude*) (with Laurent Maruani, 1997) and *La gourmandise du tapir* (*The Greed of the Tapir*) (with Vincent de Gaulejac, 1996), both published by DDB (Desclée de Brauwier).

*Interview of November 29, 1999 (original interview in French)

= Can you tell us a bit about your novel *Sanguine sur toile*?

In French, "toile" means the Web as well as the canvas of a painting, and "sanguine" is the red chalk of a drawing as well as one of the adjectives derived from blood (*sang*). But would a love of colours justify a murder? *Sanguine sur toile* is the strange story of an Internet surfer caught up in an upheaval inside his own computer, which is being remotely operated by a very mysterious person whose only aim is revenge.

I wanted to take the reader into the worlds of painting and enterprise, which intermingle, escaping and meeting up again in the dazzle of software. The reader is invited to try to untangle for himself the threads twisted by passion alone. To penetrate the mystery, he will have to answer many questions. Even with the world at his fingertips, isn't the Internet surfer the loneliest person in the world?

In view of the competition, what's the greatest degree of violence possible in an enterprise these days? Does painting tend to reflect the world or does it create another one? I also wanted to show that images are not that peaceful. You can use them to take action, even to kill. What part does the Internet play in your novel?

Internet is a character in itself. Instead of being described in its technical complexity, it's depicted as a character that can be either threatening, kind or amusing. Remember the computer screen has a dual role — displaying as well as concealing. This ambivalence is the theme throughout. In such a game, the big winner is of course the one who knows how to free himself from the machine's grip and put humanism and intelligence before all else.

= Can you also tell us about your issue: *Internet: anges et démons!* (*The Internet: Angels and Devils!*)?

Cultures en mouvement (*Cultures in Movement*), a magazine I sometimes write for, asked me in April 1999 to guest-edit a special issue on cyberculture. I brought together specialists from very different fields — an economist, a sociologist, a psychiatrist, an artist, the head of an association — to talk about the Internet. We quickly agreed that the Internet brings out the best as well as the worst. So we called the special issue *Internet: anges et démons!* (*The Internet: Angels and Devils!*). The articles were published in the magazine at the same time as we opened a site with the same name hosted by *place-internet.com*. The media praised the site, which presents the Internet calmly and with a healthy reserve.

= What exactly is your professional activity?

I spent about 20 years at Bull. There I was involved in all the adventures of computer and telecommunications development. I represented the computer industry at ISO (International

Organization for Standardization) and chaired the network group of the X/Open consortium. I also took part in the very beginning of the Internet with my colleagues of Honeywell in the US in late 1978. I'm now an information systems consultant at EdF/ GdF (Electricité de France / Gaz de France), where I keep the main computer projects of these firms and their foreign subsidiaries running smoothly. And I write. I've writing since I was a teenager. Short stories (about 100), psycho-sociological essays, articles and novels. It's an inner need as well as a very great pleasure.

= How did using the Internet change your professional life?

As I fell into computers when I was very young, I don't think I was affected by the Internet. I can look at it with enough distance to recognize the mistakes I made with it and to warn about its misuse, while avoiding veteran's fatigue and burn-out.

= How do you see the future?

The important thing about the Internet is the human value that's added to it. The Internet can never be shrewd about a situation, take a risk or replace the intelligence of the heart. The Internet simply speeds up the decision-making process and reduces uncertainty by providing information. We still have to leave time to time, let ideas mature and bring an essential touch of humanity to a relationship. For me, the aim of the Internet is meeting people, not increasing the number of electronic exchanges.

= What do you think of the debate about copyright on the Web?

I regard the Web today as a public domain. That means in practice the notion of copyright on it disappears: everyone can copy everyone else. Anything original risks being copied at once if copyrights are not formally registered or if works are available without payment facilities. A solution is to make people pay for information, but this is no watertight guarantee against it being copied. Anyway, with novels, I prefer them in paper form.

= How do you see the growth of a multilingual Web?

Different languages will still be used for a long time to come and this is healthy for the right to be different. The risk is of course an invasion of one language to the detriment of others, and with it the risk of cultural standardization. I think online services will gradually emerge to get around this problem. First, translators will be able to translate and comment on texts by request, but mainly sites with a large audience will provide different language versions, just as the audiovisual industry does now.

= What is your best experience with the Internet?

After my second novel, *Sanguine sur toile*, was published, I got a message from a friend I'd lost touch with more than 20 years ago. He recognized himself as one of the book's characters. We saw each other again recently over a good bottle of wine and swapped memories and discussed our plans.

= And your worst experience?

Viruses, "happiness" chain letters, business soliciting, extreme right-wing sites and unverified information are spreading very quickly these days. I'm seriously asking myself: "What kind of baby did I help to bring into the world?"

TYLER CHAMBERS (Boston, Massachusetts)

#Creator of The Human-Languages Page (who became iLoveLanguages in 2001) and The Internet Dictionary Project

The Human-Languages Page (created by Tyler Chambers in May 1994) and the Languages Catalog of the WWW Virtual Library redesigned the site in 2001 to become iLoveLanguages in 2001. It is now a comprehensive catalog of more than 2.000 language-related Internet resources in more than 100 different languages.

Tyler Chambers' other main language-related project is The Internet Dictionary Project, initiated in 1995. Its "goal is to create royalty-free translating dictionaries through the help of the Internet's citizens. This site allows individuals from all over the world to visit and assist in the translation of English words into other languages. The resulting lists of English words and their translated counterparts are then made available through this site to anyone, with no restrictions on their use." (extract from the website)

*Interview of September 14, 1998

= How did using the Internet change your professional life?

My professional life is currently completely separate from my Internet life. Professionally, I'm a computer programmer/techie (in Boston, Massachusetts) — I find it challenging and it pays the bills. Online, my work has been with making language information available to more people through a couple of my Web-based projects. While I'm not multilingual, nor even bilingual, myself, I see an importance to language and multilingualism that I see in very few other areas. The Internet has allowed me to reach millions of people and help them find what they're looking for, something I'm glad to do. It has also made me somewhat of a celebrity, or at least a familiar name in certain circles — I just found out that one of my Web projects had a short mention in Time Magazine's Asia and International issues. Overall, I think that the Web has been great for language awareness and cultural issues — where else can you randomly browse for 20 minutes and run across three or more different languages with information you might potentially want to know? Communications mediums make the world smaller by bringing people closer together; I think that the Web is the first (of mail, telegraph, telephone, radio, TV) to really cross national and cultural borders for the average person. Israel isn't thousands of miles away anymore, it's a few clicks away — our world may now be small enough to fit inside a computer screen.

= How do you see the growth of a multilingual Web?

Multilingualism on the Web was inevitable even before the medium "took off", so to speak. 1994 was the year I was really introduced to the Web, which was a little while after its christening but long before it was mainstream. That was also the year I began my first multilingual Web project, and there was already a significant number of language-related resources online. This was back before Netscape even existed — Mosaic was almost the only Web browser, and web pages were little more than hyperlinked text documents. As browsers and users mature, I don't think there will be any currently spoken language that won't have a niche on the Web, from Native American languages to Middle Eastern dialects, as well as a plethora of "dead" languages that will have a chance to find a new audience with scholars and others alike on-line. To my knowledge, there are very few language types which are not currently online: browsers have now the capability to display Roman characters, Asian languages, the Cyrillic alphabet, Greek, Turkish, and more. Accent Software has a product called "Internet with an Accent" which claims to be able to display over 30 different language encodings. If there are currently any barriers to any particular language being on the Web, they won't last long.

= How do you see the future?

As I've said before, I think that the future of the Internet is even more multilingualism and cross-cultural exploration and understanding than we've already seen. But the Internet will only be the medium by which this information is carried; like the paper on which a book is written, the Internet itself adds very little to the content of information, but adds tremendously to its value in its ability to communicate that information. To say that the Internet is spurring multilingualism is a bit of a misconception, in my opinion — it is communication that is spurring multilingualism and cross-cultural exchange, the Internet is only the latest mode of communication which has made its way down to the (more-or-less) common person. The Internet has a long way to go before being ubiquitous around the world, but it, or some related progeny, likely will. Language will become even more important than it already is when the entire planet can communicate with everyone else (via the Web, chat, games, e-mail, and whatever future applications haven't even been invented yet), but I don't know if this will lead to stronger language ties, or a consolidation of languages until only a few, or even just one remain. One thing I think is certain is that the Internet will forever be a record of our diversity, including language diversity, even if that diversity fades away. And that's one of the things I love about the Internet — it's a global model of the saying "it's not really gone as long as someone remembers it". And people do remember.

ALAIN CLAVET (Ottawa)

#Policy analyst with the Office of the Commissioner of Official Languages in
Canada

"The mandate of the Office of the Commissioner is: to ensure recognition of the status of English and French, Canada's two official languages; to ensure respect for the Official Languages Act; to provide information about the services of the Office of the Commissioner, aspects of the Official Languages Act and its importance to Canadian society. The Commissioner protects: the right of members of the public to use English or French to communicate with federal institutions and receive services from them as provided for in the Act and its regulations; the right of federal employees to work in either official language in designated regions; the right of all English-speaking Canadians and French-speaking

Canadians to enjoy equal opportunities for employment and advancement in federal institutions." (extract from the website)

Alain Clavet analyses policies related to linguistic duality in the Internet and in broadcasting. In August 1999 he wrote a report called *The Government of Canada and French on the Internet*. In the introduction, he says: "The Internet can have a profound influence on the organization of the Government of Canada and how it provides services to and communicates with Canadians. The English language predominates on all electronic works, including the Internet. It is therefore vital that the Commissioner ensure that French has its equitable place in exchanges that use this new method of communication and publication."

*Interview of September 3, 1999 (original interview in French)

= How did using the Internet change your professional life?

The Internet became one of my main fields of interest. I also use it as a research and communication tool and to broaden my views on matters to do with Canada's official languages (English and French).

= What are your new projects?

At the moment, I'm giving a series of lectures about the report I wrote called *The Government of Canada and French on the Internet*. Over the next few years, I'll investigate this subject further.

= What do you think of the debate about copyright on the Web?

We need software that can charge the user a fee when necessary. Governments should make available as many documents and services as possible, especially in French.

What practical suggestions do you have for the growth of a multilingual Web?

There are several suggestions in my report (see chapter V: Observations and Recommendations).

= What is your best experience with the Internet?

Discovering all the uses of a cable modem. It's very fast and showed me the power of this communication device. The Internet as a universal encyclopaedia is also essential for me.

= And your worst experience?

The fact it was so slow, but the problem has now been solved.

JEAN-PIERRE CLOUTIER (Montreal)

#Editor of *Chroniques de Cybérie*, a weekly report of Internet news

Chroniques de Cybérie was launched in November 1994 as a weekly newsletter sent by email. Since April 1995, it has been available on the Web. Both versions are currently available: the e-mail version (5,000 subscribers) and the Web version.

In *The New York Times*, Bruno Giussani wrote: "Jean-Pierre Cloutier (...) is one of the leading figures of the French-speaking Internet community. Cloutier writes one of the most intelligent, passionate and insightful electronic newsletters available on the Internet (...) an original mix of relevant Internet news, clear political analysis and no-nonsense personal opinions, (...) a publication that gave readers the feeling that they were living 'week after week in the intimacy of a planetary revolution'."

*Interview of June 8, 1998 (original interview in French)

= Could you tell us about your professional work?

There are two different things. First I was a translator (after working in communications). I got connected to the Internet at the request of my small translation company's customers because it made it easier to receive the work to translate and then send the result back to them. Quite quickly, I began to get a broader range of customers, including some in the US.

Then I made a switch. I stopped translating and became a columnist. At first I was doing it part-time, but it soon became my main activity. For me it was a return to journalism, but in a very different way. In the beginning, *Chroniques de Cybérie* dealt mainly with news (new sites and new software). But

gradually I tackled more fundamental aspects of the Internet, and then branched out into current national and international social, political and economic events.

With basic issues, it's fairly simple because all these resources (official documents, news stories, commentary and analysis) are online. You can delve into them, quote them, broaden the analysis and go on with the research. For current events, the choice of subject depends on available resources, and resources are not always easy to find. So you're in the same situation as radio or TV, that if there aren't any audio clips or pictures, even a major event becomes less interesting on the Internet.

= How do you see the future?

For Chroniques de Cybérie, we could introduce and maintain a formula because entry costs are quite low in this medium. However, everything will depend on the extent of what's called media "convergence" and on whether production costs rise if we need to offer audio and video material to stay in the game. If that happens, we'll have to rethink our strategic partnerships, such as the one linking us to the Ringier group which enabled us to relaunch Chroniques after six months of silence. But however much "convergence" there is, I think there'll always be room for written work and for in-depth analysis of the main questions.

*Interview of August 6, 1999 (original interview in French)

= What has happened since our first interview? Any new projects, new ideas...?

No real new projects. New ideas, yes, but I'm still working on them.

= What do you think of the debate about copyright on the Web? What practical suggestions do you have?

That's a very big subject.

First there are the copyright and reproduction rights of big companies. These are relatively well supported legally, either through internal legal means or by hiring specialized companies.

There's no doubt the "dematerialization" of information, brought about by the Internet and digitization, makes it easier to undermine intellectual property in various ways.

The danger is real for small producers/distributors of "original" content, who don't have the means to monitor the theft of their products, or to take legal action to ensure their rights are respected.

But all this is the "official" part — cases of plagiarism that can be found in "rematerialized" works. There is perhaps a more insidious form of plagiarism, which is the theft of ideas, concepts, formulas, etc., with no mention of their origin. It's hard to "prove" such plagiarism because it is not just a matter of "copy and paste". But it's another aspect of the issue which is often obscured in the debate.

What's the solution? We need a system where you can register free of charge an article, book or piece of music with an international organization that can take legal action against plagiarism. This wouldn't solve all the problems, but would at least establish a basic structure and, who knows, might deter the thieves.

= How do you see the growth of a multilingual Web? What practical suggestions do you have?

We passed the milestone this summer. Now more than half the users of the Internet live outside the United States. Next year more than half of all users will be non English-speaking, compared with only 5% five years ago. Isn't that great?

At the same time, the Internet has become multi-faceted and now requires more and more efficient tools because of the "enrichment" of content (or rather of what contains it, because as far as the real content is concerned, there's no enrichment, except of the firms that sell it). The Internet needs strong systems, with good memory and powerful microprocessors. Development of the non English-speaking Web will be mainly aimed at people who have no way of getting powerful systems or the latest software and operating systems, or of upgrading or renewing it all every year. Also, communication infrastructure is sorely lacking in many places outside Europe and the United States. So there is a problem of bandwidth.

I've been noticing this phenomenon since the very beginning of Chroniques. Some readers (in Africa, Asia, Caribbean, South America and the Pacific) tell me they like being able to subscribe to an e-mail version. They can get Chroniques as a single message, read it off-line and choose the sites they want to consult later. Often they have to plan their time online carefully because of poor communication links.

The Web is going to grow in these non English-speaking regions. So we've got to take into account the technical aspects of the medium if we want to reach these "new" users.

I think it's a pity there are so few translations of important documents and essays published on the Web — from English into other languages and vice-versa.

Let me explain. Jon Katz published on the Web an analysis of the "Goth" culture which the perpetrators of the Littleton slaughter were into, and of the term "Goth". The French-speaking press quoted one or two sentences of his analysis, lifted a few of his ideas, made an article out of it and that's all. But it wasn't enough to allow one to understand Katz and his analysis of this youth culture.

In the same way, the recent introduction of the Internet in regions where it is spreading raises questions which would be good to read about. When will Spanish-speaking communications theorists and those speaking other languages be translated?

= What is your best experience with the Internet?

It's not a very cheerful one and has nothing to do with the significant influence Chroniques de Cybérie has gained over the years.

At the beginning of 1996, I got a message which roughly said: "My son, in his early twenties, has been very ill for months. Every week, he looked forward very much to getting your newsletter in his electronic mailbox. As he could no longer leave the house, the newsletter allowed him to 'travel', to open his mind and think about something else other than his pain. He died this morning. I just wanted to thank you because you lightened his last months with us."

When you get a message like this, you don't care about speaking to thousands of people, you don't care about lots of statistics, you tell yourself you're talking to one person at a time.

= And your worst experience?

I haven't really had a "big bad" experience. Lots of small and irritating ones, though. The system is fragile, content takes second place, the human resources aren't talked about much and lots of new software is inundating us. But we can live with it all quite easily.

KUSHAL DAVE (Yale)

#Student at Yale University

*Interview of September 1, 1998

= How do you see the relationship between the print media and the Internet?

This is still being worked out, of course. So far, all I've been able to see is that electronic media undermines the print form in two ways:

a) providing completely alternative presses that draw attention away from the previous strongholds, and

b) forcing the print publications to spend resources trying to counteract this trend. Both forms of media critique one another and proclaim their superiority. Print media operates under a self-important sense of credibility. And the electronic media operates under a belief that they are the only purveyors of unbiased truth.

There are issues of niche and finance that need to be resolved. The Internet is certainly a more accessible and convenient medium, and thus it would be better in the long run if the strengths of the print media could be brought online without the extensive costs and copyright concerns that are concomitant. As the transition is made, the neat thing is a growing accountability for previously relatively unrepurchable edifices. For example, we already see e-mail addresses after articles in publications, allowing readers to pester authors directly. Discussion forums on virtually all major electronic publications show that future is providing not just one person's opinion but interaction with those of others as well. Their primary job is the provision of background information. Also, the detailed statistics can be gleaned about interest in an advertisement or in content itself will force greater adaptability and a questioning of previous beliefs gained from focus groups. This means more finely honed content for the individual, as quantity and customizability grows.

= How did using the Internet change your life?

The Internet has certainly been a distraction. ;) But beyond that, an immeasurable amount of both trivial and pertinent information has been gleaned in casual browsing sessions.

= How do you see the future?

In my personal future, I'd like to get a B.S., M.S., and M.Eng, working in the industry for a while before moving on to write about the medium for some reputable publication.

The future of the Internet in general I see as becoming more popular and yet more fraught with conflict over the growth of commercialism and the perception that the Net's devolutionary spirit has been undermined. There will also be a need to deal with a glut of information - already we see Internet search engines reinventing themselves to try to provide a more optimal and efficient portal.

CYNTHIA DELISLE (Montreal)

#Consultant at the CEVEIL (Centre d'expertise et de veille inforoutes et langues
- Centre for Assessment and Monitoring of Information Highways and Languages)

[Joint interview with Guy Bertrand. See: Guy Bertrand.]

BRUNO DIDIER (Paris)

#Webmaster of the Pasteur Institute Library

"The Pasteur Institutes (...) are exceptional observatories for studying infectious and parasite-borne diseases. They are wedded to the solving of practical public health problems, and hence carry out research programmes which are highly original because of the complementary nature of the investigations carried out: clinical research, epidemiological surveys and basic research work. Just a few examples from the long list of major topics of the Institutes are: malaria, tuberculosis, AIDS, yellow fever, dengue and poliomyelitis." (extract of the website)

* Interview of August 10, 1999 (original interview in French)

= Can you tell us about the website you've created?

The main aim of the Pasteur Institute Library website is to serve the Institute itself and its associated bodies. It supports applications that have become essential in such a big organization: bibliographic databases, cataloging, ordering of documents and of course access to online periodicals (presently more than 100). It's also a window for our different departments, at the Institute but also elsewhere in France and abroad. It plays a big part in documentation exchanges with the institutes in the worldwide Pasteur network. I'm trying to make it an interlink adapted to our needs for exploration and use of the Internet. The website has existed in its present form since 1996 and its audience is steadily increasing.

= What exactly is your professional activity?

I build and maintain the web pages and monitor them regularly. I'm also responsible for training users, which you can see from my pages. The Web's an excellent place for training and it's included in most ongoing discussion about that.

= How did using the Internet change your professional life?

Our relationship with both the information and the users is what changes. We're increasingly becoming mediators, and perhaps to a lesser extent "curators". My present activity is typical of this new situation: I'm working to provide quick access to information and to create effective means of communication, but I also train people to use these new tools.

= How do you see the future?

I think the future of our job is tied to cooperation and use of common resources. It's certainly an old project, but it's really the first time we've had the means to set it up.

As for my professional future, I especially hope the Internet will eventually allow me to work from home, at least part of the time. It would avoid two and a half hours of travelling every day...

= What do you think of the debate about copyright on the Web?

I haven't followed these discussions. But I think it's going to be hard to maintain the community spirit

which was the basis of the Internet in the beginning.

= How do you see the growth of a multilingual Web?

I think a multilingual Web's a very positive thing. The Internet doesn't belong to any one nation or language. It's a vehicle for culture, and the first vector of culture is language. The more languages there are on the Net, the more cultures will be represented there. I don't think we should give in to the kneejerk temptation to translate web pages into a largely universal language. Cultural exchanges will only be real if we're prepared to meet with the other culture in a genuine way. And this effort involves understanding the other culture's language. This is very idealistic of course. In practice, when I'm monitoring, I curse Norwegian or Brazilian websites where there's isn't any English.

= What is your best experience with the Internet?

The day I won a box of Swiss chocolates on the Health On the Net site. But don't rush to this site, the game doesn't exist any more.

= And your worst experience?

The abuse of e-mail: bad-mannered people take advantage of the distance and relative anonymity to say not very nice things and take really juvenile attitudes with, alas, consequences which are not always the kind you find in a children's world. For example, I once forwarded an email to somebody I thought would be interested in the subject and the person wrote directly to the original sender and discredited me.

CATHERINE DOMAIN (Paris)

#Founder of the Ulysses Bookstore (Librairie Ulysse), the oldest travel bookstore in the world

Located in central Paris, on the Ile Saint-Louis in the middle of the river Seine, Librairie Ulysse is the oldest travel bookstore in the world and has more than 20,000 books, maps and magazines, out of print and new, including some in English, about all countries and all kinds of travel. It was set up in 1971 by Catherine Domain, a member of the French National Union of Antiquarian and Modern Bookstores (Syndicat national de la librairie ancienne et moderne (SLAM)), the Explorers' Club (Club des Explorateurs) and the International Club of Long-Distance Travelers (Club international des grands voyageurs).

Catherine has travelled all over the world for many years, visiting 136 countries, and she is still on the move. In 1998 she went sailing in Kiribati and the Marshall Islands in the the Pacific. In 1999, as a judge in the Island Book Prize (Prix du livre insulaire) contest, she visited the French island of Ushant. She also sailed around Sardinia in September.

*Interview of December 4, 1999 (original interview in French)

= Can you tell us about your website?

My site is still pretty basic and under construction. Like my bookstore, it's a place to meet people before being a place of business.

= How did using the Internet change your professional life?

The Internet is a pain in the neck, takes a lot of my time and I earn hardly any money from it, but that doesn't worry me...

= How do you see the future?

I'm very pessimistic, because it's killing off specialist bookstores.

= What do you think of the debate about copyright on the Web?

I must say I'm more concerned about the WTO (World Trade Organization) than about copyright.

= How do you see the growth of a multilingual Web?

Isn't it already multilingual? I think it's going to kill the French language as well as many others.

= What is your best experience with the Internet?

A daily chat with my sister who lives in Sri Lanka and the friends I have in Mexico, the USA, the UK, South Africa etc., because I've travelled a lot, for long periods all over the world.

= And your worst experience?

My first year with a computer and the Internet. It was one long technical agony!

HELEN DRY (Michigan)

#Moderator of The Linguist List

The website of The Linguist List gives an extensive series of links on linguistic resources: the profession (conferences, linguistic associations, programs, etc.); research and research support (papers, dissertation abstracts, projects, bibliographies, topics, texts); publications; pedagogy; language resources (languages, language families, dictionaries, regional information); and computer support (fonts and software).

The Linguist List is moderated by Helen Dry (Eastern Michigan University), Anthony Aristar (Wayne State University) and Andrew Carnie (University of Arizona). Helen Dry, who is interviewed here, is a professor of linguistics at Eastern Michigan University. Her major research interests are linguistic stylistics, corpus linguistics, pragmatics, and discourse analysis.

*Interview of August 18, 1998

= Is The Linguist List multilingual?

The Linguist List, which I moderate, has a policy of posting in any language, since it is a list for linguists. However, we discourage posting the same message in several languages, simply because of the burden extra messages put on our editorial staff. (We are not a bounce-back list, but a moderated one. So each message is organized into an issue with like messages by our student editors before it is posted.) Our experience has been that almost everyone chooses to post in English. But we do link to a translation facility that will present our pages in any of 5 languages; so a subscriber need not read Linguist in English unless s/he wishes to. We also try to have at least one student editor who is genuinely multilingual, so that readers can correspond with us in languages other than English.

*Interview of July 26, 1999

= What has happened since our last interview?

We are beginning to collect some primary data. For example, we have searchable databases of dissertation abstracts relevant to linguistics, of information on graduate and undergraduate linguistics programs, and of professional information about individual linguists. The dissertation abstracts collection is, to my knowledge, the only freely available electronic compilation in existence.

BILL DUNLAP (Paris & San Francisco)

#Founder of Global Reach, a methodology for companies to expand their Internet presence through a multilingual website

Founder of Global Reach, Bill Dunlap specialized in international online marketing and e-commerce among mainly American companies. Global Reach is a methodology for companies to expand their Internet presence into a more international framework. This includes translating a website into other languages and actively promoting it, to increase local website traffic from countries by a promotional campaign.

Bill Dunlap, an MIT (Massachusetts Institute of Technology) graduate, has made a life of bringing high-tech products and services to the international markets. When the microcomputer industry was in its early stages in the early 1980s, he set up a company to export popular Apple and PC software to top European markets. This led to a thorough familiarity with the European PC distribution business, and he worked then as AST Research's first European sales manager. Further opportunity brought him into Compaq Computer's newly established Paris office, where he became Compaq's first sales manager in France. He continued with Compaq afterwards at their European headquarters in Munich and managed Scandinavian sales.

Since the mid-1980s, Bill Dunlap has developed the international marketing consultancy Euro-

Marketing Associates from Paris and San Francisco. In 1995, Euro-Marketing Associates was restructured into a virtual consultancy called Global Reach, a group of top online marketers throughout the world. The goal is to promote clients' websites in each targeted country, thus attracting more online traffic: more traffic, more sales.

*Interview of December 11, 1998

= How did using the Internet change your professional life?

Since 1981, when my professional life started, I've been involved with bringing American companies to Europe. This is very much an issue of language, since the products and their marketing have to be in the languages of Europe in order for them to be visible here. Since the Web became popular in 1995 or so, I've turned these activities to their online dimension, and have come to champion European e-commerce among my fellow American compatriots. Most lately at Internet World in New York, I spoke about European e-commerce and how to use a Website to address the various markets in Europe.

= What is the purpose of the Global Reach program?

Promoting your Web site is at least as important as creating it, if not more important. You should be prepared to spend at least as much time and money in promoting your Web site as you did in creating it in the first place. With the Global Reach program, you can have it promoted in countries where English is not spoken, and achieve a wider audience... and more sales. There are many good reasons for taking the online international market seriously. Global Reach is a means for you to extend your Web site to many countries, speak to online visitors in their own language and reach online markets there.

= How do you see the growth of a multilingual Web?

There are so few people in the U.S. interested in communicating in many languages — most Americans are still under the delusion that the rest of the world speaks English. However, here in Europe (I'm writing from France), the countries are small enough so that an international perspective has been necessary for centuries.

*Interview of July 23, 1999

= What practical suggestions do you have for the development of a multilingual website?

After a website's home page is available in several languages, the next step is the development of content in each language. A webmaster will notice which languages draw more visitors (and sales) than others, and these are the places to start in a multilingual Web promotion campaign. At the same time, it is always good to increase the number of languages available on a website: just a home page translated into other languages would do for a start, before it becomes obvious that more should be done to develop a certain language branch on a website.

= What is your best experience with the Internet?

Working in tandem with hundreds of people, without any pressure. It's a great life.

= And your worst experience?

Several times, I've published an online forum, in which several insulting individuals started sending nasty mail to the forum. It went out to hundreds of people, and then they started sending nasty mail back. It had a snowball effect, and I remember waking up one morning with over 4,000 messages to download. What a mess!

JACQUES GAUCHEY (San Francisco)

#Specialist in the information technology industry, "facilitator" between the United States and Europe, and journalist

Created in 1993, Jacques Gauchey's consultancy G.a Communications assists start-up Internet and IT (information technology) companies in building their European strategies, partnerships, and visibility. To fulfill its clients' international business development needs, G.a Communications maintains a close-knit network of competences worldwide.

Jacques Gauchey was a director of the Multimedia Development Group (MDG) in 1996-97. He led MDG's International Group from 1994 to 1996, with projects ranging from MDG's M3 conference (1994) to publishing the 1995 and 1996 editions of the guide Going Global: Multimedia Marketing & Distribution.

He was a moderator at such events as the European ETRE & Asian ATRE only-for-CEOs IT conferences (1990, '91 & '92), MDG's "World Multimedia: A Mosaic of Markets" (San Francisco, 1994), Multimedia Live! (San Francisco, 1995), the A.I. (Artificial Intelligence) Soft International Partners seminar (Tokyo, 1996), etc. He moderates focus groups for the IT industry.

From 1985 to 1992, he was the West Coast correspondent for La Tribune, a Paris business daily. He worked previously for Le Figaro and Le Point.

*Interview of July 31, 1999 (original interview in French)

= How did using the Internet change your professional life?

Totally. The whole world is on my computer screen. Everyone now has access to a global database. They have to learn to navigate their way through it or get drowned.

= How do you see the future?

All my clients now are Internet companies. All my working tools (my mobile phone, my PDA and my PC) are or will soon be linked to the Internet.

= What do you think of the debate about copyright on the Web?

Copyright in its traditional context doesn't exist any more. Authors have to get used to a new situation: the total freedom of the flow of information. The original content is like a fingerprint: it can't be copied. So it will survive and flourish.

= How do you see the growth of a multilingual Web?

Technology may solve the problem. May the best one win. The Internet really took off in the US because of a revolutionary concept: only one language — English. The "politically correct" movement for mandatory multilingual teaching in US schools and respect for the various subcultures is a disaster for the future of this country (as it already is in Europe). Individuals have to decide at home if they want to learn another language.

= What is your best experience with the Internet?

Four years ago I published a few issues of a free English newsletter on the Internet. It had about 10 readers per issue until the day (in January 1996) when the electronic version of Wired Magazine created a link to it. In one week I got about 100 e-mails, some from French readers of my book La vallée du risque - Silicon Valley (published by Plon, Paris, at the end of 1990), who were happy to find me again.

= And your worst experience?

The Internet is a medium and, like any medium, can be lead to evil. The shooting spree by a day trader in Atlanta in July 1999. Pornography. The unrestricted online sale of guns. Junk mail.

MARCEL GRANGIER (Bern)

#Head of the French Section of the Swiss Federal Government's Central Linguistic Services

*Interview of January 14, 1999 (original interview in French)

= How did using the Internet change your professional life?

To work without the Internet is simply impossible now. Apart from all the tools used (e-mail, the electronic press, services for translators), the Internet is for us a vital and endless source of information in what I'd call the "non-structured sector" of the Web. For example, when the answer to a translation problem can't be found on websites presenting information in an organized way, in most cases search engines allow us to find the missing link somewhere on the network.

= How do you see the growth of a multilingual Web?

We can see multilingualism on the Internet as a happy and irreversible inevitability. So we have to laugh at the doomsayers who only complain about the supremacy of English. Such supremacy isn't wrong in itself, because it's mainly based on statistics (more PCs per inhabitant, more people speaking English, etc.). The answer isn't to "fight English," much less whine about it, but to build more sites in other languages. As a translation service, we also recommend that websites be multilingual.

= How do you see the future?

The increasing number of languages on the Internet is inevitable and can only boost multicultural exchanges. For this to happen in the best possible circumstances, we still need to develop tools to improve compatibility. Fully coping with accents and other characters is only one example of what can be done.

*Interview of January 25, 2000 (original interview in French)

= Can you tell us about your website?

Our website was first conceived as an Intranet service for translators in Switzerland, who often deal with the same kind of material as the federal government's translators. Some parts of it are useful to any translators, wherever they are. The electronic dictionaries (Dictionnaires électroniques) are only one section of the website. Other sections deal with administration, law, the French language and general information. The site also hosts the pages of the Conference of Translation Services of European States (COTSOES).

= What exactly is your professional activity?

I'm head of the French Section of the Swiss Federal Government's Central Linguistic Services, which means I'm in charge of organising translation matters for all the linguistic services of the Swiss government.

= What do you think of the debate about copyright on the Web?

There's a problem here and the solution isn't obvious. It's a pity the battle against this kind of fraud will eventually justify, along with other abuses, a "Web police," which sadly is very far from the spirit in which the Web was created.

= How do you see the growth of a multilingual Web?

We now have a multilingual Internet. We have to build it up and ensure it's easy to access, which'll probably take a bit longer.

BARBARA GRIMES (Hawaii)

#Editor of Ethnologue: Languages of the World

The Ethnologue is a catalogue of more than 6,700 languages. A paper version and a CD-ROM are also available.

*Interview of August 18, 1998

= How did using the Internet change your professional life?

We have found the Internet to be useful, convenient, and supplementary to our work. Our main use of it is for e-mail. It is a convenient means of making information more widely available to a wider audience than the printed Ethnologue provides.

On the other hand, many people in the audience we wish to reach do not have access to computers, so in some ways the Ethnologue on the Internet reaches a limited audience who own computers. I am particularly thinking of people in the so-called "third world".

= How do you see the growth of a multilingual Web?

Multilingual web pages are more widely useful, but much more costly to maintain. We have had requests for the Ethnologue in a few other languages, but we do not have the personnel or funds to do the translation or maintenance, since it is constantly being updated.

*Interview of January 15, 2000

= Can you tell us about the Ethnologue?

It is a catalog of the languages of the world, with information about where they are spoken, an estimate of the number of speakers, what language family they are in, alternate names, names of dialects, other sociolinguistic and demographic information, dates of published Bibles, a name index, a language family index, and language maps.

= What exactly is your professional activity?

I am the editor of the 8th to 14th editions, 1971-2000.

= What do you think of the debate about copyright on the Web?

Any copyrights should be respected, just as with print matter.

= What is your best experience with the Internet?

Receiving corrections and new reliable information.

= And your worst experience?

Unkind criticism or that which does not include corrections.

MICHAEL HART (Illinois)

#Founder of Project Gutenberg, the oldest digital library on the Internet

Project Gutenberg, set up by Michael Hart in 1971 when he was a student at the University of Illinois (USA), was the Internet's first information provider. From the beginning, its mission has been to put at everybody's disposal, free, as many books as possible whose copyright has expired. It is now the biggest digital library on the Web in terms of the number of books (3,700 e-texts in July 2001) that have been patiently digitized in text format by 600 volunteers from all over the world. Some old documents are typed line by line, mainly because the originals are unclear, but most works are scanned using OCR (optical character recognition) software. Then they are read and corrected twice, sometimes by two different people. At first they were just books in English, but now ones in other languages are being digitized.

*Interview of August 23, 1998

= How do you see the relationship between the print media and the Internet?

We consider e-text to be a new medium, with no real relationship to paper, other than presenting the same material, but I don't see how paper can possibly compete once people each find their own comfortable way to e-texts, especially in schools.

= How did using the Internet change your professional life?

My career couldn't have happened without the Internet, and neither could Project Gutenberg have happened. I presume you know that Project Gutenberg was the first information provider on the Net.

= What are your new projects?

My own personal goal is to put 10,000 Etexts on the Net, and if I can get some major support, I would like to expand that to 1,000,000 and to also expand our potential audience for the average Etext from 1.x% of the world population to over 10%, thus changing our goal from giving away 1,000,000,000,000 Etexts to 1,000 time as many, a trillion and a quadrillion in US terminology.

*Interview of July 23, 1999

= What do you think of the debate about copyright on the Web?

The kind of copyright debate going on is totally impractical. It is run by and for the "Landed Gentry of the Information Age." Information Age? For whom? No one has said more against copyright extensions than I have, but Hollywood and the big publishers have seen to it that our Congress won't even mention it in public.

= What are exactly these copyright extensions?

Nothing will expire for another 20 years. We used to have to wait 75 years. Now it is 95 years. And it was 28 years (+ a possible 28 year extension, only on request before that) and 14 years (+ a possible 14 year extension before that). So, as you can see, this is a serious degrading of the public domain, as a matter of continuing policy.

= How do you see the growth of a multilingual Web?

We will eventually have a really good Babelfish (AltaVista's translation software). I am publishing in

one new language per month right now, and will continue as long as possible.

= What is your best experience with the Internet?

The notes I get that tell me people appreciate that I have spent my life putting books, etc., on the Internet. Some are quite touching, and can make my whole day.

= And your worst experience?

Getting called on the Chancellor's carpet because Oxford University call him and really shook him up... but I had a team of 6 lawyers, half from the University of Illinois, who backed me up, so we made Oxford back down. You might say that was a good memory, but I hate that kind of politicking... the Chancellor was Tom Cruise's uncle, so that was fun.

ROBERTO HERNANDEZ MONTOYA (Caracas)

#Head of the digital library of the electronic magazine Venezuela Analítica

Roberto Hernández Montoya has a literature degree from the Central University of Venezuela. He is a columnist at El Nacional, Letras, Imagen and Internet World Venezuela. He is a member of the editorial board of Venezuela Cultural, Venezuela Analítica and Imagen. He studied discourse analysis at the School of High Studies in Social Sciences (Ecole des hautes études en sciences sociales - EHES), Paris. He was the founding president of the Venezuelan Association of Editors, and the editor of the Ateneo de Caracas.

Venezuela Analítica, an electronic magazine conceived as a public forum to exchange ideas on politics, economics, culture, science and technology, created in May 1997 BitBiblioteca, a digital library which contains material mostly in Spanish, and also in French, English and Portuguese.

*Interview of September 3, 1998 (original interview in French)

= How do you see the relationship between the print media and the Internet?

The printed word can't be replaced, at least not in the foreseeable future. The paper book is a wonderful thing. We can't leaf through an electronic text in the same way. But we can find words and groups of words much more quickly. We can read an electronic text more carefully, even with the inconvenience of reading it on the screen. It is less expensive and can be more easily distributed worldwide (not counting the cost of the computer and Internet connection).

= How did using the Internet change your professional life?

The Internet has been personally very important for me. It's become the centre of my life. It's meant that our organization can now communicate with thousands of people — something we couldn't have afforded if we'd published a paper magazine. I think the Internet is going to be the chief means of communication and exchanging information in the future.

RANDY HOBLER (Dobbs Ferry, New York)

#Internet Marketing Consultant, among others at Globalink, a company specialized in language translation software and services

Randy Hobler has been a consultant in Internet& marketing at IBM, Johnson & Johnson, Burroughs Wellcome, Pepsi, Heublein, etc. In 1998, he was an Internet Marketing Consultant for Globalink, a company specialized in language translation software and services. He wrote: "The joy for me is the ability to combine my vocational skills in high-tech and marketing with avocational interests like language into one. To love what you do and do what you love." Globalink was bought by Lernout & Hauspie in 1999.

*Interview of September 3, 1998

= How do you see the growth of a multilingual Web?

85% of the content of the Web in 1998 is in English and going down. This trend is driven not only by more websites and users in non-English-speaking countries, but by increasing localization of company and organization sites, and increasing use of machine translation to/from various languages to translate websites.

Because the Internet has no national boundaries, the organization of users is bounded by other criteria driven by the medium itself. In terms of multilingualism, you have virtual communities, for example, of what I call "Language Nations"... all those people on the Internet wherever they may be, for whom a given language is their native language. Thus, the Spanish Language nation includes not only Spanish and Latin American users, but millions of Hispanic users in the US, as well as odd places like Spanish-speaking Morocco.

= Can you tell us about the future of machine translation?

We are rapidly reaching the point where highly accurate machine translation of text and speech will be so common as to be embedded in computer platforms, and even in chips in various ways. At that point, and as the growth of the Web slows, the accuracy of language translation hits 98% plus, and the saturation of language pairs has covered the vast majority of the market, language transparency (any-language-to-any-language communication) will be too limiting a vision for those selling this technology. The next development will be "transcultural, transnational transparency", in which other aspects of human communication, commerce and transactions beyond language alone will come into play. For example, gesture has meaning, facial movement has meaning and this varies among societies. The thumb-index finger circle means 'OK' in the United States. In Argentina, it is an obscene gesture.

When the inevitable growth of multi-media, multi-lingual videoconferencing comes about, it will be necessary to 'visually edit' gestures on the fly. The MIT (Massachusetts Institute of Technology) Media Lab, Microsoft and many others are working on computer recognition of facial expressions, biometric access identification via the face, etc. It won't be any good for a US business person to be making a great point in a Web-based multi-lingual video conference to an Argentinian, having his words translated into perfect Argentinian Spanish if he makes the "O" gesture at the same time. Computers can intercept this kind of thing and edit them on the fly.

There are thousands of ways in which cultures and countries differ, and most of these are computerizable to change as one goes from one culture to the other. They include laws, customs, business practices, ethics, currency conversions, clothing size differences, metric versus English system differences, etc. Enterprising companies will be capturing and programming these differences and selling products and services to help the peoples of the world communicate better. Once this kind of thing is widespread, it will truly contribute to international understanding.

*Interview of September 10, 2000

= What do you think about e-books?

E-books continue to grow as the display technology improves, and as the hardware becomes more physically flexible and lighter. Plus, among the early adapters will be colleges because of the many advantages for students (ability to download all their reading for the entire semester, inexpensiveness, linking into exams, assignments, need for portability, eliminating need to lug books all over).

EDUARD HOVY (Marina del Rey, California)

#Head of the Natural Language Group at USC/ISI (University of Southern California / Information Sciences Institute)

The Natural Language Group (NLG) at the Information Sciences Institute of the University of Southern California (USC/ISI) is currently involved in various aspects of computational/natural language processing. The group's projects are: machine translation; automated text summarization; multilingual verb access and text management; development of large concept taxonomies (ontologies); discourse and text generation; construction of large lexicons for various languages; and multimedia communication.

Eduard Hovy, his director, is a member of the Computer Science Departments of USC and of the University of Waterloo. He completed a Ph.D. in Computer Science (Artificial Intelligence) at Yale University in 1987. His research focuses on machine translation, automated text summarization, text planning and generation, and the semi-automated construction of large lexicons and terminology banks. The Natural Language Group at ISI currently has projects in most of these areas.

Dr. Hovy is the author or editor of four books and over 100 technical articles. He currently serves as the President of the Association of Machine Translation in the Americas (AMTA). He is Vice President of the Association for Computational Linguistics (ACL), and has served on the editorial boards of Computational Linguistics and the Journal of the Society of Natural Language

*Interview of August 27, 1998

= How do you see the growth of a multilingual Web?

In the context of information retrieval (IR) and automated text summarization (SUM), multilingualism on the Web is another complexifying factor. People will write their own language for several reasons — convenience, secrecy, and local applicability — but that does not mean that other people are not interested in reading what they have to say! This is especially true for companies involved in technology watch (say, a computer company that wants to know, daily, all the Japanese newspaper and other articles that pertain to what they make) or some government intelligence agencies (the people who provide the most up-to-date information for use by your government officials in making policy, etc.). One of the main problems faced by these kinds of people is the flood of information, so they tend to hire "weak" bilinguals who can rapidly scan incoming text and throw out what is not relevant, giving the relevant stuff to professional translators. Obviously, a combination of SUM and MT (machine translation) will help here; since MT is slow, it helps if you can do SUM in the foreign language, and then just do a quick and dirty MT on the result, allowing either a human or an automated IR-based text classifier to decide whether to keep or reject the article.

For these kinds of reasons, the US Government has over the past five years been funding research in MT, SUM, and IR, and is interested in starting a new program of research in Multilingual IR. This way you will be able to one day open Netscape or Explorer or the like, type in your query in (say) English, and have the engine return texts in all the languages of the world. You will have them clustered by subarea, summarized by cluster, and the foreign summaries translated, all the kinds of things that you would like to have.

You can see a demo of our version of this capability, using English as the user language and a collection of approx. 5,000 texts of English, Japanese, Arabic, Spanish, and Indonesian, by visiting MuST (Multilingual information retrieval, summarization, and translation system).

Type your query word (say, "baby", or whatever you wish) in and press Enter/Return. In the middle window you will see the headlines (or just keywords, translated) of the retrieved documents. On the left you will see what language they are in: "Sp" for Spanish, "Id" for Indonesian, etc. Click on the number at left of each line to see the document in the bottom window. Click on "Summarize" to get a summary. Click on "Translate" for a translation (but beware: Arabic and Japanese are extremely slow! Try Indonesian for a quick word-by-word "translation" instead).

This is not a product (yet); we have lots of research to do in order to improve the quality of each step. But it shows you the kind of direction we are heading in.

= How do you see the future?

The Internet is, as I see it, a fantastic gift to humanity. It is, as one of my graduate students recently said, the next step in the evolution of information access. A long time ago, information was transmitted orally only; you had to be face-to-face with the speaker. With the invention of writing, the time barrier broke down — you can still read Seneca and Moses. With the invention of the printing press, the access barrier was overcome — now anyone with money to buy a book can read Seneca and Moses. And today, information access becomes almost instantaneous, globally; you can read Seneca and Moses from your computer, without even knowing who they are or how to find out what they wrote; simply open AltaVista and search for "Seneca". This is a phenomenal leap in the development of connections between people and cultures. Look how today's Internet kids are incorporating the Web in their lives.

The next step? — I imagine it will be a combination of computer and cellular phone, allowing you as an individual to be connected to the Web wherever you are. All your diary, phone lists, grocery lists, homework, current reading, bills, communications, etc., plus AltaVista and the others, all accessible (by voice and small screen) via a small thing carried in your purse or on your belt. That means that the barrier between personal information (your phone lists and diary) and non-personal information (Seneca and Moses) will be overcome, so that you can get to both types anytime. I would love to have something that tells me, when next I am at a conference and someone steps up, smiling to say hello, who this person is, where last I met him/her, and what we said then!

But that is the future. Today, the Web has made big changes in the way I shop (I spent 20 minutes looking for plane routes for my next trip with a difficult transition on the Web, instead of waiting for my secretary to ask the travel agent, which takes a day). I look for information on anything I want to know about, instead of having to make a trip to the library and look through complicated indexes. I send e-mail to you about this question, at a time that is convenient for me, rather than your having to make a

phone appointment and then us talking for 15 minutes. And so on.

*Interview of August 8, 1999

= What has happened since our first interview?

Over the past 12 months I have been contacted by a surprising number of new information technology (IT) companies and startups. Most of them plan to offer some variant of electronic commerce (online shopping, bartering, information gathering, etc.). Given the rather poor performance of current non-research level natural language processing technology (when is the last time you actually easily and accurately found a correct answer to a question to the Web, without having to spend too much time sifting through irrelevant information?), this is a bit surprising. But I think everyone feels that the new developments in automated text summarization, question analysis, and so on, are going to make a significant difference. I hope so!—but the level of performance is not available yet.

It seems to me that we will not get a big breakthrough, but we will get a somewhat acceptable level of performance, and then see slow but sure incremental improvement. The reason is that it is very hard to make your computer really "understand" what you mean—this requires us to build into the computer a network of "concepts" and their interrelationships that (at some level) mirror those in your own mind, at least in the subjects areas of interest. The surface (word) level is not adequate — when you type in "capital of Switzerland", current systems have no way of knowing whether you mean "capital city" or "financial capital". Yet the vast majority of people would choose the former reading, based on phrasing and on knowledge about what kinds of things one is likely to ask the Web, and in what way.

Several projects are now building, or proposing to build, such large "concept" networks. This is not something one can do in two years, and not something that has a correct result. We have to develop both the network and the techniques for building it semi-automatically and self-adaptively. This is a big challenge.

= What do you think about the debate concerning copyright on the Web? What practical solutions would you suggest?

As an academic, I am of course one of the parasites of society, and hence all in favor of free access to all information. But as a part-owner of a small startup company, I am aware of how much it costs to assemble and format information, and the need to charge somehow.

To balance these two wishes, I like the model by which raw information (and some "raw" resources, such as programming languages and basic access capabilities like the Web search engines) are made available for free. This creates a market and allows people to do at least something. But processed information, and the systems that help you get and structure just exactly what you need, I think should be paid for. That allows developers of new and better technology to be rewarded for their effort.

Take an example: a dictionary, today, is not free. Dictionary companies refuse to make them available to research groups and others for free, arguing that they have centuries of work invested. (I have had several discussions with dictionary companies on this.) But dictionaries today are stupid products — you have to know the word before you can find the word! I would love to have something that allows me to give an approximate meaning, or perhaps a sentence or two with a gap where I want the word I am looking for, or even the equivalent in another language, and returns the word(s) I am looking for. This is not hard to build, but you need the core dictionary to start with. I think we should have the core dictionary freely available, and pay for the engine (or the service) that allows you to enter partial or only somewhat accurate information and helps you find the best result.

A second example: you should have free access to all the Web, and to basic search engines like those available today. No copyrights, no license fees. But if you want an engine that provides a good targeted answer, pinpointed and evaluated for trustworthiness, then I think it is not unreasonable to pay for that.

Naturally, an encyclopedia builder will not like my proposal. But to him or her I say: package your encyclopedia inside a useful access system, because without it the raw information you provide is just more data, and can easily get lost in the sea of data available and growing every hour.

*Interview of September 2, 2000

= What has happened since our last interview?

I see a continued increase in small companies using language technology in one way or another: either to provide search, or translation, or reports, or some other communication function. The number of niches in which language technology can be applied continues to surprise me: from stock reports and

updates to business-to-business communications to marketing...

With regard to research, the main breakthrough I see was led by a colleague at ISI (I am proud to say), Kevin Knight. A team of scientists and students last summer at Johns Hopkins University in Maryland developed a faster and otherwise improved version of a method originally developed (and kept proprietary) by IBM about 12 years ago. This method allows one to create a machine translation (MT) system automatically, as long as one gives it enough bilingual text. Essentially the method finds all correspondences in words and word positions across the two languages and then builds up large tables of rules for what gets translated to what, and how it is phrased.

Although the output quality is still low — no-one would consider this a final product, and no-one would use the translated output as is — the team built a (low-quality) Chinese-to-English MT system in 24 hours. That is a phenomenal feat — this has never been done before. (Of course, say the critics: you need something like 3 million sentence pairs, which you can only get from the parliaments of Canada, Hong Kong, or other bilingual countries; and of course, they say, the quality is low. But the fact is that more bilingual and semi-equivalent text is becoming available online every day, and the quality will keep improving to at least the current levels of MT engines built by hand. Of that I am certain.)

Other developments are less spectacular. There's a steady improvement in the performance of systems that can decide whether an ambiguous word such as "bat" means "flying mammal" or "sports tool" or "to hit"; there is solid work on cross-language information retrieval (which you will soon see in being able to find Chinese and French documents on the Web even though you type in English-only queries), and there is some rather rapid development of systems that answer simple questions automatically (rather like the popular web system AskJeeves, but this time done by computers, not humans). These systems refer to a large collection of text to find "factoids" (not opinions or causes or chains of events) in response to questions such as "what is the capital of Uganda?" or "how old is President Clinton?" or "who invented the xerox process?", and they do so rather better than I had expected.

= What do you think about e-books?

E-books, to me, are a non-starter. More even than seeing a concert live or a film at a cinema, I like the physical experience holding a book in my lap and enjoying its smell and feel and heft. Concerts on TV, films on TV, and e-books lose some of the experience; and with books particularly it is a loss I do not want to accept. After all, it's much easier and cheaper to get a book in my own purview than a concert or cinema. So I wish the e-book makers well, but I am happy with paper. And I don't think I will end up in the minority anytime soon — I am much less afraid of books vanishing than I once was of cinemas vanishing.

= What is your definition of cyberspace?

I define cyberspace as the totality of information that we can access via the Internet and computer systems in general. It is not, of course, a space, and it has interesting differences with libraries. For example, soon my fridge, my car, and I myself will be "known" to cyberspace, and anyone with the appropriate access permission (and interest) will be able to find out what exactly I have in my fridge and how fast my car is going (and how long before it needs new shock absorbers) and what I am looking at now. In fact, I expect that advertisements will change their language and perhaps even pictures and layout to suit my knowledge and tastes as I walk by, simply by recognizing that "here comes someone who speaks primarily English and lives in Los Angeles and makes \$X per year". All this behaviour will be made possible by the dynamically updatable nature of cyberspace (in contrast to a library), and the fact that computer chips are still shrinking in size and in price. So just as today I walk around in "socialspace" — a web of social norms, expectation, and laws — tomorrow I will be walking around in an additional cyberspace of information that will support me (sometimes) and restrict me (other times) and delight me (I hope often) and frustrate me (I am sure).

= And your definition of the information society?

An information society is one in which people in general are aware of the importance of information as a commodity, and attach a price to it as a matter of course. Throughout history, some people have always understood how important information is, for their own benefit. But when the majority of society starts working with and on information per se, then the society can be called an information society. This may sound a bit vacuous or circularly defined, but I bet you that anthropologists can go and count what percentage of society was dedicated to information processing as a commodity in each society. Where they initially will find only teachers, rulers' councillors, and sages, they will in later societies find people like librarians, retired domain experts (consultants), and so on. The jumps in communication of information from oral to written to printed to electronic every time widened (in time and space) information dissemination, thereby making it less and less necessary to re-learn and re-do

certain difficult things. In an ultimate information society, I suppose, you would state your goal and then the information agencies (both the cyberspace agents and the human experts) would conspire to bring you the means to achieve it, or to achieve it for you, minimizing the amount of work you'd have to do to only that is truly new or truly needs to be re-done with the material at hand.

CHRISTIANE JADELLOT (Nancy, France)

#Researcher at the INALF (Institut national de la langue française - National Institute of the French Language)

The purpose of the INALF — part of the France's National Centre for Scientific Research (Centre national de la recherche scientifique, CNRS) — is to design research programmes on the French language, particularly its vocabulary. The INALF's constantly expanding and revised data, processed by special computer systems, deal with all aspects of the French language: literary discourse (14th-20th centuries), everyday language (written and spoken), scientific and technical language (terminologies), and regional languages. This data, which is an very important study resource, is made available to people interested in the French language (teachers and researchers, business people, the service sector and the general public) through publications and databases.

Christiane Jadelot is an expert in computerized lexicography. She is currently in charge of putting the eighth version of the Dictionnaire de l'Académie française (Dictionary of the French Academy) (1932-1935) online.

*Interview of June 8, 1998 (original interview in French)

= What is the history of the INALF website?

At the request of Robert Martin, the head of INALF, our first pages were posted on the Internet in mid-1996. I helped set up these web pages with tools that cannot be compared to the ones we have nowadays. I was working with tools on Unix, which were not very easy to use. We had little practical experience then, and the pages were very cluttered. But the INALF thought it was very important to make ourselves known through the Internet, which many firms were already using to sell their products. As we are a "research and services" organization, we have to find customers for our computer products, the best known being the text database Frantext. I think Frantext was already on the Internet (since early 1995), and there was also a draft version of volume 14 of the TLF (Trésor de la langue française). So we had to publicize INALF activities in this way. It met a general need.

= How did using of the Internet change your professional life?

I began to really use it in 1994, with a browser called Mosaic. I found it a very useful way of improving my knowledge of computers, linguistics, literature... everything. I was finding the best and the worst, but as a discerning user, I had to sort it all out and make choices. I particularly liked the software for e-mail, file transfers and dial-up connections. At that time I had problems with a programme called Paradox and character sets that I couldn't use. I tried my luck and threw out a question in a specialist news group. I got answers from all over the world. Everyone seemed to want to solve my problem! I wasn't used to this kind of support. The French are more used to working alone, without reaching out.

= What do you see the future?

I think we have to equip more and more laboratories with high-tech hardware and software so we can use all these new media. We have got projects for schools and research centers. The French education ministry has promised to give all schools cable line access, which is a pressing national need. I saw a TV programme about a small rural primary school's experience of the Internet. The pupils were communicating by e-mail with schools all over the world. This is very enriching, especially when supervised by specially-trained teachers. So that is how I see the Internet. Now I am equipped at home, more for fun, and I hope to convince my daughter to use all these tools to the fullest.

*Interview of August 10, 1999 (original interview in French)

= What do you think of the debate about copyright on the Web?

With its text database Frantext, the INALF is greatly affected by problems of copyright and publisher's rights. I think the rules should be more flexible. At the moment, use of the database is restricted, which reduces its influence and the spread of French in general.

= How do you see the growth of a multilingual Web?

Personally I have no problem about the use of English, which has to be regarded as a shared communication tool. But websites should offer access both in English and in the language of their country of origin.

= What is your best experience with the Internet?

It was the one I recalled in 1998, when I got responses from all over the world to my very trivial question about type-faces.

= And your worst experience?

When I sent an email to someone by mistake. Sometimes this communication tool has to be used carefully. It goes faster than the human brain and can then be used by the recipient in a very ugly way.

JEAN-PAUL (Paris)

#Webmaster of cotres furtifs (Furtive Cutter Ships), a website that tells stories in 3D

The cotres furtifs was launched on October 20, 1998, after they had become a group. Following a break to show solidarity with the Altern web server (which fell foul of the inadequate French laws about the Internet), they are now offering two parts and preparing a third. The aim is to tell stories in 3D and explore how a 'link' opens the way for 'hyperwriting,' which is a set of characters, sounds and animations. It gives priority to words.

Jean-Paul is a writer and a musician. In June 1998, he wrote: "The Internet allows me to do without intermediaries, such as record companies, publishers and distributors. Most of all, it allows me to crystallize what I have in my head (and elsewhere): the print medium (desktop-publishing, in fact) only allows me to partly do that. Then the intermediaries will take over and I'll have to look somewhere else, a place where the grass is greener..."

*Interview of August 5, 1999 (original interview in French)

= How do you see the future of cyber-literature?

The future of cyber-literature, techno-literature or whatever you want to call it, is set by the technology itself. It's now impossible for an author to handle all by himself the words and their movement and sound. A decade ago, you could know well each of Director, Photoshop or Cubase (to cite just the better-known software), using the first version of each. That's not possible any more. Now we have to know how to delegate, find more solid financial partners than Gallimard, and look in the direction of Hachette-Matra, Warner, the Pentagon and Hollywood.

At best, the status of the, what... hack? multimedia director? will be the one of video director, film director, the manager of the product. He or she's the one who receives the golden palms at Cannes, but who would never have been able to earn them just on their own. As twin sister (not a clone) of the cinematograph, cyber-literature (video + the link) will be an industry, with a few isolated craftsmen on the outer edge (and therefore with below-zero copyright).

= What exactly is a cutter?

It is called that because it seems to cut through the water. It's sturdy little naval vessel with a single mast. Cutters were an important part of naval fleets because they were quick and easy to operate. They were the favourite boats of pirates, smugglers and... maritime postal workers.

"Now that the earth is flat and the seas desalinated, it's time for our cutters to thread their way through the 6 billion (soon six and a half billion) stars that we are. And for them all to link up with each other." (The running cutter) Why do you use just your first name, instead of your full name?

My reasoning is that, on the Web, there's everything to be done. Except for CERN (European Center for Particule Research) and the Pentagon (which are going to make another web, designed just for their own use), nobody knows what exactly it offers us. So we can work freely while believing that probably everything is open. And use this unlimited, internal space as widely and quickly as possible before the rapacious star-spangled banners of 0 and 1 catch up with and overtake us.

But if it's just a matter of repeating the same things as before, what's the point?

This business of using a surname (directly linked to the copyright problem) takes us back to basics, to the central untouchable principle of our planet: private property. Within the space of a few centuries, we have been reduced to a name, just one name, all the "cleaner" because it has been stripped of all

humanity and reduced to a social security barcode. It's not something natural, but a choice of the society, desired by managers. How could we run a modern society and give back to Caesar his due if each of us could change our administrative identity several times in our lives, from "Daredevil on Rollers" to "Motorcycle on the Curves" and then "Hippy Smoking on the Verandah" (you know, like me, that a simple software programme could easily take care of all this)? "Human nature is basically evil and all criminals take advantage of that. But we're here to protect you and your identity." (The Pentagon) And the first thing a down-and-out person does to assert themselves, someone whose papers are never in order, is to scribble their name on a billboard advertising some big commercial product.

On our site, we discreetly try something else.

We exist, we have an address. We know it's hard to speak to each other in anonymity or in a group, so we keep a few landmarks — the time factor, the human factor, and for the cutters, the cutter mailman, who happens to be Jean-Paul. A first name that is not really one's own name because the thing about a name is that it isn't ours, it's a name passed down by a dynasty, from a string of legally-registered names of our male ancestors.

But we're not rejecting our ancestors. They created our world, what we call reality. But we build up the Web to create another dream. And we launch our cutters in all directions, to make contacts.

= What do you think of the debate about copyright on the Web?

We don't feel involved.

a) If it means "respect", it's a matter of morality and style, so there's nothing to discuss. On the Web, as elsewhere, we quote our sources. Complete respect. For most of us.

b) If it means "copyright", we're on legal ground, which is by nature shaky. Copyright is a recent notion the French attribute to Beaumarchais, a business man with a dark side, an arms dealer and great writer. The advent of digitization, and therefore cloning (which raises a different problem to the one of copying, which was solved long ago), forces us to reconsider this notion.

c) If it means "author's rights" (in the plural), we're in the economic field, where we know what the attitude is: competition, withholding information, being top of the class and stopping others from getting there.

Sony publishes CD (audio and ROM) because it earns them good money. And it makes CD-engravers (which enable you to clone its own CDs, as well as those of its rivals) because it earns them more good money. Philips was doing the same thing until it sold its Polygram division (which, according to the rules of economics, it could buy back if it wanted).

"It's not enough to be big to be successful but, in a totally globalized financial world, it helps." (Hervé Babonneau, Ouest-France (French daily newspaper), August 6, 1999). "A funny aim", says the sturdy cutter. Jurassic Games and tyrannosaurus more or less rex.

Although it's marginally economic (we have to pay for a domain name and a subscription to the server), our cutter-space isn't limited to that and we don't have a competitive attitude. Our site can be freely downloaded, and we download sites we think are creative.

It's normal to clone someone else's work and give it away as a gift. It's a way to share. What's disgusting is to sell a clone.

The job of legal experts is to prove the authorities right: yesterday it was the guillotine for backstreet abortionists, today the social security reimburses the cost of abortions (in France, though not in Poland).

Copyright or author's rights, a European vision or a US one, which will prevail? The sacred principle of private property. The property of those who have the means to keep it. Through the World Trade Organization (WTO), for example, which is in charge of settling "rights" issues anywhere in the world (even the virtual world) and, they hope, permanently.

If your house is the path of a future highway, you know the real price of something untouchable.

So the rights of authors, creators, inventors...

Orson Welles was gobbled up by the big studios, but Kubrick carefully stayed independent of them. The law made to measure by Uncle Picsou matters little. Over time, small mammals have eaten tyrannosaurs. And we've cut off the heads of kings, who supposedly drew their power from the gods. And we did that more quickly.

"To give a purer meaning to the words of the tribe", Stéphane Mallarmé wrote. And when the credit cards have won (apparently in three years time), we must invent other ways to take us to another Cape of Good Hope, where we can watch "new stars rise from the distant horizon", like J.M. de Heredia.

= How do you see the growth of a multilingual Web?

Your book (which is really good and useful — I get something out of it every time I read it, and it has good addresses too) deals with this whole subject: "Sooner or later the presence of languages on the Web will reflect their strength around the world." Depending on the energy of those who speak them.

= What is your best experience with the Internet?

How light-headed we felt when we received our first message... coming from Canada. 10.000 (?) years after the Inuits, our cutters had just discovered America!

= And your worst experience?

All the sleep I'm missing...

*Interview of June 25, 2000 (original interview in French)

= How did using the hyperlink change your writing?

Surfing the Web is like radiating in all directions (I'm interested in something and I click on all the links on a home page) or like jumping around (from one click to another, as the links appear). You can do this in the written media, of course. But the difference is striking. So the Internet didn't change my life, but it did change how I write. You don't write the same way for a website as you do for a script or a play.

But it wasn't exactly the Internet that changed my writing, it was the first model of the Mac. I discovered it when I was teaching myself Hypercard. I still remember how astonished I was during my month of learning about buttons and links and about surfing by association, objects and images. Being able, by just clicking on part of the screen, to open piles of cards, with each card offering new buttons and each button opening onto a new series of them. In short, learning everything about the Web that today seems really routine was a revelation for me. I hear Steve Jobs and his team had the same kind of shock when they discovered the forerunner of the Mac in the laboratories of Rank Xerox.

Since then I've been writing directly on the screen. I use a paper print-out only occasionally, to help me fix up an article, or to give somebody who doesn't like screens a rough idea, something immediate. It's only an approximation, because print forces us into a linear relationship: the words scroll out page by page most of the time. But when you have links, you've got a different relationship to time and space in your imagination. And for me, it's a great opportunity to use this reading/writing interplay, whereas leafing through a book gives only a suggestion of it — a vague one because a book isn't meant for that.

BRIAN KING

#Director of the WorldWide Language Institute, who initiated NetGlos (The Multilingual Glossary of Internet Terminology)

One of the WorldWide Language Institute's projects is NetGlos (The Multilingual Glossary of Internet Terminology), which is currently being compiled from 1995 as a voluntary, collaborative project by a number of translators and other professionals. Versions for the following languages are being prepared: Chinese, Croatian, English, Dutch/Flemish, French, German, Greek, Hebrew, Italian, Maori, Norwegian, Portuguese, and Spanish.

*Interview of September 15, 1998

= How did using the Internet change the life of your organization?

Our main service is providing language instruction via the Web. Our company is in the unique position of having come into existence because of the Internet!

= How do you see the growth of a multilingual Web?

Although English is still the most important language used on the Web, and the Internet in general, I believe that multilingualism is an inevitable part of the future direction of cyberspace.

Here are some of the important developments that I see as making a multilingual Web become a reality:

1. Popularization of information technology

Computer technology has traditionally been the sole domain of a "techie" elite, fluent in both complex programming languages and in English — the universal language of science and technology. Computers were never designed to handle writing systems that couldn't be translated into ASCII (American standard code for information interchange). There wasn't much room for anything other than the 26 letters of the English alphabet in a coding system that originally couldn't even recognize acute accents and umlauts — not to mention nonalphabetic systems like Chinese.

But tradition has been turned upside down. Technology has been popularized. GUIs (graphical user interfaces) like Windows and Macintosh have hastened the process (and indeed it's no secret that it was Microsoft's marketing strategy to use their operating system to make computers easy to use for the average person). These days this ease of use has spread beyond the PC to the virtual, networked space of the Internet, so that now nonprogrammers can even insert Java applets into their webpages without understanding a single line of code.

2. Competition for a chunk of the "global market" by major industry players

An extension of (local) popularization is the export of information technology around the world. Popularization has now occurred on a global scale and English is no longer necessarily the lingua franca of the user. Perhaps there is no true lingua franca, but only the individual languages of the users. One thing is certain — it is no longer necessary to understand English to use a computer, nor it is necessary to have a degree in computer science.

A pull from non-English-speaking computer users and a push from technology companies competing for global markets has made localization a fast growing area in software and hardware development. This development has not been as fast as it could have been. The first step was for ASCII to become Extended ASCII. This meant that computers could begin to start recognizing the accents and symbols used in variants of the English alphabet — mostly used by European languages. But only one language could be displayed on a page at a time.

3. Technological developments

The most recent development is Unicode. Although still evolving and only just being incorporated into the latest software, this new coding system translates each character into 16 bytes. Whereas 8 byte Extended ASCII could only handle a maximum of 256 characters, Unicode can handle over 65,000 unique characters and therefore potentially accommodate all of the world's writing systems on the computer.

So now the tools are more or less in place. They are still not perfect, but at last we can at least surf the Web in Chinese, Japanese, Korean, and numerous other languages that don't use the Western alphabet. As the Internet spreads to parts of the world where English is rarely used — such as China, for example, it is natural that Chinese, and not English, will be the preferred choice for interacting with it. For the majority of the users in China, their mother tongue will be the only choice.

There is a change-over period, of course. Much of the technical terminology on the Web is still not translated into other languages. And as we found with our Multilingual Glossary of Internet Terminology — known as NetGlos — the translation of these terms is not always a simple process. Before a new term becomes accepted as the "correct" one, there is a period of instability where a number of competing candidates are used. Often an English loanword becomes the starting point — and in many cases the endpoint. But eventually a winner emerges that becomes codified into published technical dictionaries as well as the everyday interactions of the nontechnical user. The latest version of NetGlos is the Russian one and it should be available in a couple of weeks or so (end of September 1998). It will no doubt be an excellent example of the ongoing, dynamic process of "russification" of Web terminology.

4. Linguistic democracy

Whereas "mother-tongue education" was deemed a human right for every child in the world by a Unesco report in the early '50s, "mother-tongue surfing" may very well be the Information Age equivalent. If the Internet is to truly become the global network that it is promoted as being, then all users, regardless of language background, should have access to it. To keep the Internet as the preserve of those who, by historical accident, practical necessity, or political privilege, happen to know English, is unfair to those who don't.

5. Electronic commerce

Although a multilingual Web may be desirable on moral and ethical grounds, such high ideals are not enough to make it other than a reality on a small-scale. As well as the appropriate technology being available so that the non-English speaker can go, there is the impact of "electronic commerce" as a major force that may make multilingualism the most natural path for cyberspace.

Sellers of products and services in the virtual global marketplace into which the Internet is developing must be prepared to deal with a virtual world that is just as multilingual as the physical world. If they want to be successful, they had better make sure they are speaking the languages of their customers!

= How do you see the future?

As a company that derives its very existence from the importance attached to languages, I believe the future will be an exciting and challenging one. But it will be impossible to be complacent about our successes and accomplishments. Technology is already changing at a frenetic pace. Life-long learning is a strategy that we all must use if we are to stay ahead and be competitive. This is a difficult enough task in an English-speaking environment. If we add in the complexities of interacting in a multilingual/multicultural cyberspace, then the task becomes even more demanding. As well as competition, there is also the necessity for cooperation — perhaps more so than ever before.

The seeds of cooperation across the Internet have certainly already been sown. Our NetGlos Project has depended on the goodwill of volunteer translators from Canada, U.S., Austria, Norway, Belgium, Israel, Portugal, Russia, Greece, Brazil, New Zealand and other countries. I think the hundreds of visitors we get coming to the NetGlos pages everyday is an excellent testimony to the success of these types of working relationships. I see the future depending even more on cooperative relationships — although not necessarily on a volunteer basis.

GEOFFREY KINGSCOTT (London)

#Co-editor of the online magazine Language Today

Geoffrey Kingscott is the managing director of Praetorius, a major British translation company and language consultancy, and one of the two editors of Language today, an online magazine for people working in applied languages: translators, interpreters, terminologists, lexicographers and technical writers.

*Interview of September 4, 1998

= What did using the Internet bring to your company?

The Internet has made comparatively little difference to our company. It is an additional medium rather than one which will replace all others.

We will continue to have a company website, and to publish a version of the magazine on the Web, but it will remain only one factor in our work. We do use the Internet as a source of information which we then distill for our readers, who would otherwise be faced with the biggest problem of the Web — indiscriminating floods of information.

= How do you see the growth of a multilingual Web?

Because the salient characteristics of the Web are the multiplicity of site generators and the cheapness of message generation, as the Web matures it will in fact promote multilingualism. The fact that the Web originated in the USA means that it is still predominantly in English but this is only a temporary phenomenon. If I may explain this further, when we relied on the print and audiovisual (film, television, radio, video, cassettes) media, we had to depend on the information or entertainment we wanted to receive being brought to us by agents (publishers, television and radio stations, cassette and video producers) who have to subsist in a commercial world or — as in the case of public service broadcasting — under severe budgetary restraints. That means that the size of the customer-base is all-important, and determines the degree to which languages other than the ubiquitous English can be accommodated. These constraints disappear with the Web.

To give only a minor example from our own experience, we publish the print version of Language Today only in English, the common denominator of our readers. When we use an article which was originally in a language other than English, or report an interview which was conducted in a language other than English, we translate into English and publish only the English version. This is because the

number of pages we can print is constrained, governed by our customer-base (advertisers and subscribers). But for our Web edition we also give the original version.

STEVEN KRAUWER (Utrecht, Netherlands)

#Coordinator of ELSNET (European Network of Excellence in Human Language Technologies)

ELSNET (European Network of Excellence in Human Language Technologies) has 135 European academic and industrial institutions as members. The long-term technological goal which unites the participants of ELSNET is to build multilingual speech and NL (natural language) systems with unrestricted coverage of both spoken and written language. It is funded by the European Commission.

Steven Krauwer, coordinator of ELSNET, is a senior lecturer/researcher in Computational Linguistics at the Utrecht Institute of Linguistics OTS (Utrecht University, Netherlands). His main interests are: machine translation; evaluation of language and speech systems; integration of language, speech and other modalities.

*Interview of September 23, 1998

= How did using the Internet change your professional life?

It's my chief way of communicating with others and my main source of information. I'm sure I'll spend the rest of my professional life trying to use it to remove or at least lower the language barriers.

= How do you see the growth of a multilingual Web?

As a European citizen, I think multilingualism on the Web is absolutely essential, because in the long run I don't think it's a healthy situation when only those who have a reasonable command of English can take full advantage of what the Web has to offer.

As a researcher (specialized in machine translation), I see multilingualism as a major challenge: how can we ensure that all information on the Web is accessible to everybody, irrespective of language differences.

*Interview of August 4, 1999

= What has happened since our first interview?

I've become more and more convinced we should be careful not to address the multilinguality problem in isolation. I've just returned from a wonderful summer vacation in France, and even if my knowledge of French is modest (to put it mildly), it's surprising to see that I still manage to communicate successfully by combining my poor French with gestures, facial expressions, visual clues and diagrams. I think the Web (as opposed to old-fashioned text-only email) offers excellent opportunities to exploit the fact that transmission of information via different channels (or modalities) can still work, even if the process is only partially successful for each of the channels in isolation.

= What do you think of the debate about copyright on the Web?

The baseline is of course "thou shalt not steal, even if it's easy". It's interesting to note that, however complex it is to define legally, most people have very good intuition about what counts as stealing:

- if I copy info from the Web and use it for my own purposes, I'm not stealing, because this is exactly why the information was put on the Web in the first place;

- if I copy info from the Web and re-transmit it to others, giving credit to the author, I am not stealing;

- if I copy info from the Web and re-transmit it to others, pretending I'm the author, I am stealing;

- if I copy info from the Web and sell it to others without permission from the author, I am stealing.

I realize there are lots of borderline cases where it's not immediately clear what counts as stealing, but let's leave that to the lawyers to figure out.

= What practical solutions would you suggest?

I would adopt the following rules of thumb:

- copying info for your own use is always free;

- re-transmission is OK with proper credit to the author (unless the info is explicitly labeled as public);

- re-sale of info is OK with permission of the author (unless public).

To back this up one could envisage:

- introducing standard labels (for each mime type) which indicate whether the info is public, and if not, point to the author;

- making browsers "label-aware", so they can show the content of the label when displaying text, pictures and movies;

- adopting the convention/rule that info cannot be copied without the label;

- (a bit more adventurous) setting up an ISPN (international standard person number), similar to ISBN (international standard book number) and ISSN (international standard serial number), which identifies a person, so that references to authors in the labels are less dependent on changes in e-mail addresses and home pages (as long as people keep their addresses in the ISPN database up-to-date, of course).

= What practical solutions would you suggest for the growth of a multilingual Web?

- At the author end: better education of web authors to use combinations of modalities to make communication more effective across language barriers (and not just for cosmetic reasons);

- at the server end: more translation facilities à la AltaVista (quality not impressive, but always better than nothing);

- at the browser end: more integrated translation facilities (especially for the smaller languages), and more quick integrated dictionary lookup facilities.

= What is your best experience with the Internet?

One night I heard on a foreign radio station a fragment of a song and the name of a person, and using only the Internet I was able to:

- identify the person as the composer;

- find the title of the song;

- confirm that this was actually the song I'd heard;

- discover that it was part of a musical;

- find the title of the CD-set of the musical;

- buy the CDs;

- find the website of the musical;

- find the country and place where the musical was still being performed, including when;

- find the phone number and opening hours of the booking office;

- get a map of the city, and directions to get to the theatre.

I could've done my hotel and flight bookings via the Internet too, but it wasn't necessary in this case.

The only thing I could not do was the actual booking, because they didn't accept Internet bookings from abroad at the time, for security reasons.

I had a wonderful time at the theatre, and I don't think this would've been possible without the Internet!

= And your worst experience?

Nothing specific, but there are a few repetitive ones:

- unsolicited commercial e-mails;

- web pages full of ads;
- pages overloaded with irrelevant, time-consuming graphics;
- dead links.

*Interview of June 1st, 2001

= How much do you still work with paper?

I use paper a lot. All important documents are printed out, as they are a lot easier to consult on paper (easier to browse, never a dead battery). I don't think that this is going to change for quite a while.

= What do you think about e-books?

Still a long way to go before reading from a screen feels as comfortable as reading a book.

= What is your definition of cyberspace?

For me the cyberspace is the part of the universe (including people, machines and information) that I can reach from behind my desk.

= How would you define the information society?

An information society is a society:

- where most of the knowledge and information is no longer stored in people's brains or books but on electronic media,
- where the information repositories are distributed, interconnected via an information infrastructure, and accessible from anywhere, and
- where social processes have become so dependent on this information and the information infrastructure that citizens who are not connected to this information system cannot fully participate in the functioning of the society.

TIM McKENNA (Geneva)

#Thinks and writes about the complexity of truth in a world of flux

*Interview of October 17, 2000

= What exactly do you do professionally?

I am a mathematics teacher and currently I am taking time off to earn a master's degree in telecommunications management.

= What exactly do you do on the Internet?

I use the Internet primarily for research.

= How do you see the future?

I hope to see the Internet become more of a tool for accessing news and media that is not controlled by large corporate accounts.

= What do you think of the debate about copyright on the Web?

Copyright is a difficult issue. The owner of the intellectual property thinks that she owns what she has created. I believe that the consumer purchases the piece of plastic (in the case of a CD) or the bounded pages (in the case of book). The business community has not found a new way to add value to intellectual property. Consumers don't think very abstractly. When they download songs for example they are simply listening to them, they are not possessing them. The music and publishing industry need to find ways to give consumers tactile vehicles for selling the intellectual property.

= How do you see the growth of a multilingual Web?

When software gets good enough for people to chat or talk on the Web in real time in different languages, then we will see whole a new world appear before us. Scientists, political activists, businesses and many more groups will be able to communicate immediately without having to go

through mediators or translators.

= How much do you still work with paper? Will there still be a place for paper in the future?

Paper still plays a vital role in my life. Reading is a matter of cultural pride for me. My background is Irish (Tim is a US citizen). To paraphrase Thomas Cahil, spirituality has always been closely connected with literacy in Ireland. I would miss reading and reading from a screen is too burdensome to the eyes.

= What do you think about e-books?

I don't think that they have the right appeal for lovers of books. The Internet is great for information. Books are not information. People that love books have a relationship with their books. They reread them, write in them, confer with them. Just as cyber sex will never replace the love of a woman, e-books will never be a vehicle for beautiful prose.

= What do you suggest to give blind and partially-sighted people easier access to the Web?

Software companies need to develop voice activated software with the blind in mind when it comes to quality and the broad consumer market when it comes to profitability. It will never be profitable and affordable for the blind to have technology catered to them. However, there are countless examples of technologies that are developed with the less abled in mind and that have wide appeal with the masses.

= What is your definition of cyberspace?

Cyberspace to me is the distance that is bridged when individuals use technology to connect, either by sharing information or chatting. To say that one exists in cyberspace is really to say that he has eliminated distance as a barrier to connecting with people and ideas.

= And your definition of the information society?

The information society to me is the tangible form of Jung's collective consciousness. Most of the information resides in the subconsciousness but browsing technology has made the information more retrievable which in turn allows us greater self knowledge both as individuals and as human beings.

= What is your best experience with the Internet?

My best experience with the Internet is using e-mail to stay in touch with friends.

= And your worst experience?

My worst experience was learning how to use it before technology surpassed my ineptitude.

MICHAEL MARTIN (Berkeley, California)

#Founder and president of Travlang, a site dedicated both to travel and languages

Michael Martin created a Foreign Languages for Travelers section on his university website in 1994 when he was a physics student in New York. A year later, after its dizzying growth, he launched Travlang, a site that quickly became a major portal for travel and languages and won a best travel site award in 1997. Martin, now an experimental physics researcher at the Lawrence Berkeley National Laboratory in California, sold it to GourmetMarket.com in February 1999, who sold it to iiGroup in January 2000. By July 2000, the site was pulling in two million visitors a month.

Travlang has two main sections. Foreign Languages for Travelers allows you to learn 70 different languages on the Web. Translating Dictionaries links to free dictionaries in Afrikaans, Czech, Danish, Dutch, Esperanto, Finnish, French, Frisian, German, Hungarian, Italian, Latin, Norwegian, Portuguese, Spanish and Swedish. You can also book your hotel, car or plane ticket, look up exchange rates and browse 7,000 other language and travel sites.

*Interview of August 25, 1998

= How did using the Internet change your professional life?

Well, certainly we've made a little business of our website! The Internet is really a great tool for communicating with people you wouldn't have the opportunity to interact with otherwise. I truly enjoy the global collaboration that has made our Foreign Languages for Travelers pages possible.

= How do you see the growth of a multilingual Web?

I think the Web is an ideal place to bring different cultures and people together, and that includes being multilingual. Our Travlang site is so popular because of this, and people desire to feel in touch with other parts of the world.

I think computerized full-text translations will become more common, enabling a lot of basic communications with even more people. This will also help bring the Internet more completely to the non-English speaking world.

YOSHI MIKAMI (Fujisawa, Japan)

#Creator of The Languages of the World by Computers and the Internet, and co-author of The Multilingual Web Guide

Set up in December 1995 by Yoshi Mikami, The Languages of the World by Computers and the Internet (known as Logos Home Page or Kotoba Home Page) gives for each language a brief history, its features, writing system and character set and keyboard for computer and Internet processing.

Yoshi Mikami is also the co-author (with Kenji Sekine and Nobutoshi Kohara) of The Multilingual Web Guide, first published in Japanese in August 1997 (O'Reilly Japan, ISBN 4-900900-23-0), and translated into English, French and German.

*Interview of December 17, 1998

= What is your experience with languages?

My native tongue is Japanese. Because I had my graduate education in the US and worked in the computer business, I became bilingual in Japanese and American English. I was always interested in languages and different cultures, so I learned some Russian, French and Chinese along the way. In late 1995, I created on the Web The Languages of the World by Computers and the Internet and tried to summarize there the brief history, linguistic and phonetic features, writing system and computer processing aspects for each of the six major languages of the world, in English and Japanese. As I gained more experience, I invited my two associates to help me write a book on viewing, understanding and creating multilingual web pages, which was published in August 1997 as The Multilingual Web Guide, in a Japanese edition, the world's first book on such a subject.

= How do you see the growth of a multilingual Web?

Thousands of years ago, in Egypt, China and elsewhere, people were more concerned about communicating their laws and thoughts not in just one language, but in several. In our modern world, most nation states have each adopted one language for their own use. I predict greater use of different languages and multilingual pages on the Internet, not a simple gravitation to American English, and also more creative use of multilingual computer translation. 99% of the websites created in Japan are written in Japanese.

JOHN MARK OCKERBLOOM (Pennsylvania)

#Founder of The On-Line Books Page, listing freely-available online books

The On-Line Books Page lists over 12,000 freely-available online books in English. It was founded in 1993 by John Mark Ockerbloom, who the same year started the website of the CMU CS (Carnegie Mellon University Computer Science). In 1998, John graduated from Carnegie Mellon (Pittsburgh, Pennsylvania) with a Ph.D. in computer science. He has now moved to Penn (University of Pennsylvania), where he works with the library and the computer science department doing digital library research and development. The On-Line Books Page also joined Penn's digital library, and John hopes it can be greatly expanded and upgraded while being integrated with other digital library resources.

*Interview of September 2, 1998

= How did your website begin?

I was the original Webmaster here at CMU CS, and started our local Web in 1993. The local Web included pages pointing to various locally developed resources, and originally The On-Line Books Page was just one of these pages, containing pointers to some books put online by some of the people in our department. (Robert Stockton had made Web versions of some of Project Gutenberg's texts.)

After a while, people started asking about books at other sites, and I noticed that a number of sites (not just Gutenberg, but also Wiretap and some other places) had books online, and that it would be useful to have some listing of all of them, so that you could go to one place to download or view books from all over the Net. So that's how my index got started.

I eventually gave up the webmaster job in 1996, but kept The On-Line Books Page, since by then I'd gotten very interested in the great potential the Net had for making literature available to a wide audience. At this point there are so many books going online that I have a hard time keeping up (and in fact have a large backlog of books to list). But I hope to keep up my online books works in some form or another.

= How do you see the future?

I am very excited about the potential of the Internet as a mass communication medium in the coming years. I'd also like to stay involved, one way or another, in making books available to a wide audience for free via the Net, whether I make this explicitly part of my professional career, or whether I just do it as a spare-time volunteer.

*Interview of August 5, 1999

= What do you think of the debate about copyright on the Web?

I'm not sure which debate you have in mind. But I think it's important for people on the Web to understand that copyright is a social contract that's designed for the public good — where the public includes both authors and readers.

This means that authors should have the right to exclusive use of their creative works for limited times, as is expressed in current copyright law. But it also means that their readers have the right to copy and reuse the work at will once copyright expires. In the US now, there are various efforts to take rights away from readers, by restricting fair use, lengthening copyright terms (even with some proposals to make them perpetual) and extending intellectual property to cover facts separate from creative works (such as found in the "database copyright" proposals). There are even proposals to effectively replace copyright law altogether with potentially much more onerous contract law. I find it much harder to sympathize with MPAA (Motion Picture Association of America) head Jack Valenti's plea to stop copying of copyrighted movies when I know that if he had his way, *no* movie would ever enter the public domain. (Mary Bono mentioned this wish of his in Congress last year.)

If media companies are seen to try to lock up everything that they can get away with, I don't find it surprising that some consumers react by putting on-line anything *they* can get away with. Unfortunately, doing that in turn takes away the legitimate rights of authors.

How to practically solve this? Stakeholders in this debate have to face reality, and recognize that both producers and consumers of works have legitimate interests in their use. If intellectual property is then negotiated by a balance of principles, rather than as the power play it's too often ends up being ("big money vs. rogue pirates") we may be able to come up with some reasonable accommodations.

CAOIMHIN O DONNAILE (Island of Skye, Scotland)

#Maintains European Minority Languages on the main site with information on Scottish Gaelic

Maintained on the site of the college Sabhal Mór Ostaig by Caoimhín P. Ó Donnáile, European Minority Languages is a list of minority languages by alphabetic order and by language family.

*Interview of August 18, 1998

= How do you see the growth of a multilingual Web?

I see four main points:

- The Internet has contributed and will contribute to the wildfire spread of English as a world language.

- The Internet can greatly help minority languages, but this will not happen by itself. It will only happen if people want to maintain the language as an aim in itself.

- The Web is very useful for delivering language lessons, and there is a big demand for this.

- The Unicode (ISO 10646) character set standard is very important and will greatly assist in making the Internet more multilingual.

*Interview of January 15, 2000

= What exactly do you do professionally?

I teach computing (through the Gaelic language) at a college on the island of Skye in Scotland. I maintain the college website, which is the main site worldwide with information on Scottish Gaelic.

= What do you think of the debate about copyright on the Web?

I haven't been following the debate, but I think the duration of copyright is far too long. Other than that I think that copyright should be respected in general.

= How do you see the growth of a multilingual Web?

There is a danger that English will take over the world because of the spread of the Internet. However, if people are keen to maintain other languages, then the Internet will help with this.

= What is your best experience with the Internet?

[Private matters.]

= And your worst experience?

I don't have any really bad experiences with the Internet. Just the usual - spam, hackers, but nothing really bad.

*Interview of May 31st, 2001

= What has happened since our last interview?

There has been a great expansion in the use of information technology at the Gaelic-medium college here. Far more computers, more computing staff, flat screens. Students do everything by computer, use Gaelic spell-checking, Gaelic online terminology database. More hits on our web site. More use of sound. Gaelic radio (both Scottish and Irish) now available continuously worldwide via the Internet. Major project has been translation the Opera web-browser into Gaelic - the first software of any size available in Gaelic.

= Do you have anything to add to your previous answers?

I would emphasise the point that as regards the future of endangered languages, the Internet speeds everything up. If people don't care about preserving languages, the Internet and accompanying globalisation will greatly speed their demise. If people do care about preserving them, the Internet will be a tremendous help.

= How much do you still work with paper?

I work with paper a lot, but far less than with computer delivered information. I write about 2.000 e-mails per year, compared to about 100 letters and about 500 phone calls and about 15 faxes.

= Will there still be a place for paper in the future?

Yes, there will still be a place for paper for a long long time to come, but its share will continue to decline compared to computer-delivered information.

= What do you think about e-books?

I don't know much about what e-books are. WWW is the really important thing.

JACQUES PATAILLOT (Paris)

#Management Consultant with the firm Cap Gemini Ernst & Young

*Interview of January 26, 2000 (original interview in French)

= Can you tell us about your company's website?

The Ernst & Young France website was created in 1998. It started out as just an advertisement for

the firm and its activities and grew naturally from there.

= How did using the Internet change your professional life?

The Internet changed (and changes) our professional life in two ways:

- It provides our consultants with data about present and possible clients.

These are the communication/information aspects.

- The Internet has generated new needs among firms, so management consultancies have and are developing e-commerce solutions such as eprocurement, efulfilment, etc. A whole new range of activities is available. This will revolutionise the world of consulting and major investments are being made to develop such e-solutions.

= How do you see the future?

In the short term, as consultants, we'll also be affected by the growth of online services through the Internet. For some consulting, subject matter experts can answer clients and possible clients through the Web. We're moving towards online consulting.

= What do you think of the debate about copyright on the Web?

The Internet was conceived as an "open world", so copyright is a tricky problem.

I can't see much of a solution.

= How do you see the growth of a multilingual Web?

Unfortunately, a multilingual Internet is quite unlikely. English is too strong, and the duplication of texts and data isn't feasible.

= What is your best experience with the Internet?

When I can quickly find the information I'm looking for.

= And your worst experience?

The opposite situation — getting lost when I'm looking for something.

PETER RAGGETT (Paris)

#Head of the Centre for Documentation and Information (CDI) of the OECD
(Organisation for Economic and Co-operation Development)

"The OECD groups 29 member countries in an organisation that, most importantly, provides governments a setting in which to discuss, develop and perfect economic and social policy. They compare experiences, seek answers to common problems and work to co-ordinate domestic and international policies that increasingly in today's globalised world must form a web of even practice across nations. (...) The OECD is a club of like-minded countries. It is rich, in that OECD countries produce two thirds of the world's goods and services, but it is not an exclusive club. Essentially, membership is limited only by a country's commitment to a market economy and a pluralistic democracy. The core of original members has expanded from Europe and North America to include Japan, Australia, New Zealand, Finland, Mexico, the Czech Republic, Hungary, Poland and Korea. And there are many more contacts with the rest of the world through programmes with countries in the former Soviet bloc, Asia, Latin America - contacts which, in some cases, may lead to membership." (extract of the website)

The Centre for Documentation and Information (CDI) is charged with providing information to agents of the OECD in support of their research work. It has about 60,000 monographs and about 2,500 periodical titles in its collections. The CDI also provides information in electronic format from databases, CD-ROMs and the Internet.

Peter Raggett, the Head of the CDI, has been a professional librarian for nearly twenty years, first working in UK government libraries and now at the OECD since 1994. He has been working with the Internet since 1996. He is in charge of the CDI Intranet pages, which are one of the chief sources of information for OECD personnel.

*Interview of June 18, 1998

= What exactly do you do on the Internet?

I have to filter the information for library users which means that I must know the sites and the links that they have. I chose several hundred sites to allow access to them from the OECD Intranet and these sites are part of the virtual reference desk which the library has made available to the Organisations's staff. As well as these links, this virtual reference desk contains pages of references to articles, monographs and web sites corresponding to different ongoing research projects at the OECD, network access to CD-ROMs and a monthly list of new titles. The library catalogue will soon be available on the Intranet.

= How do you see the future?

The Internet has provided researchers with a vast database of information. The problem for them is to find what they are seeking. Never has the information overload been so obvious as when one tries to find information on a topic by searching the Internet. Information managers have a large role to play in searching and arranging the information on the Internet.

I expect that there will be an expansion in Internet use for education and research. This means that libraries will have to create virtual libraries where students can follow a course offered by an institution at the other side of the world.

Personally, I see myself becoming more and more a virtual librarian. My clients may not meet me face-to-face but instead will contact me by e-mail, telephone or fax and I will do the research and send them the results electronically.

*Interview of August 4, 1999

= What has happened since our first interview?

Our Intranet site will be completely renovated by the end of the year, as we will be putting the library catalogue on the Intranet. This will allow our users to access the catalogue across our Intranet. The catalogue will be Z39.50 compliant.

= What do you think of the debate about copyright on the Web?

The copyright question is still very unclear. Publishers naturally want their fees for each article ordered and librarians and end-users want to be able download immediately full text of articles. At the moment each publisher seems to have its own policy for access to electronic versions and they would benefit from having some kind of homogenous policy, preferably allowing unlimited downloading of their electronic material.

= How do you see the growth of a multilingual Web?

I think it is incumbent on European organisations and businesses to try and offer websites in three or four languages if resources permit. In this age of globalisation and electronic commerce, businesses are finding that they are doing business across many countries. Allowing French, German, Japanese speakers to easily read one's web site as well as English speakers will give a business a competitive edge in the domain of electronic trading.

= What is your best experience with the Internet?

Finding within 10 minutes articles and information on a professor who was visiting the Organisation.

= And your worst experience?

Connection problems and slow transfer of data.

*Interview of July 31, 2000

= What has happened since our last interview?

The catalogue was mounted onto our Intranet pages in October 1999. This allows all OECD agents to search the CDI's catalogue easily from their own offices.

= How much do you still work with paper?

We are still providing photocopies of periodical articles, although our use of paper has diminished slightly, due to the availability of full text articles on the Internet in PDF format. Our loans of monographs has not decreased since the advent of the Internet.

= Will there still be a place for paper in the future?

I think that there will still be a place for some use of paper despite the advent of electronic books. The use of paper will lessen as people get more and more used to electronic books.

= What do you think about e-books?

It is interesting to see that the electronic book mimics the traditional book as much as possible except that the paper page is replaced by a screen. I can see that the electronic book will replace some of the present paper products but not all of them. I also hope that electronic books will be waterproof so that I can continue reading in the bath.

= What do you suggest to give blind and partially-sighted people easier access to the Web?

I predict an increase in the use of sounds, where blind and partially-sighted people will be able to hear the text of web sites using loudspeakers or earphones.

= What is your definition of cyberspace?

Cyberspace is that area "out there" which is on the other end of my PC when I connect to the Internet. Any ISP (Internet service provider) or web page provider is in cyberspace as far as his users or customers are concerned.

= And your definition of the information society?

The information society is the society where the most valued product is information. Up to the 20th century, manufactured goods were the most valued products. They have been replaced by information. In fact, people are now talking of the knowledge society where the most valuable economic product is the knowledge inside our heads.

HENRI SLETTENHAAR (Geneva)

#Professor in communication technology at Webster University

Henri Slettenhaar has extensive knowledge of communication technology. He joined the European Center for Particle Research (CERN) in 1958 to work with the first digital computer and was involved in the development of CERN's first digital networks. His US experience began in 1966 when he joined a team at the Stanford Linear Accelerator Center (SLAC) for 18 months to build a film digitizer. Returning to SLAC in 1983, he designed a digital monitoring system, which was used for more than 10 years. For nearly twenty years now he has been teaching information technology at Webster University, Geneva. He is the head of the Telecom Management Program created in Fall 2000. He is also a consultant for numerous organizations.

In 1992, Henri Slettenhaar founded the (Swiss) Silicon Valley Association (SVA) and, since then, has been constantly networking between Switzerland and California, taking study groups to Silicon Valley. These study tours include visits to outstanding companies, start-up, research centers and universities in the Silicon Valley and in other high-technology areas such as San Francisco, Los Angeles, Finland, etc., with the aim of exploring new developments in information technology such as the Internet, multimedia, and telecommunications. Participants have the opportunity to learn about state-of-the-art research and development, strategies and business ventures through presentations and discussions, product demonstrations and site tours.

*Interview of December 21, 1998

= How did using the Internet change your professional life?

I can't imagine my professional life without the Internet. Most of my communication is now via e-mail. I've been using email for the last 20 years, most of that time to keep in touch with colleagues in a very narrow field. Since the explosion of the Internet, and especially the invention of the Web, I communicate mainly by e-mail. Most of my presentations are now on the Web and the courses I teach are all web-extended. All the details of my Silicon Valley Tours are on the Web. Without the Internet we wouldn't be able to function. And I use the Internet as a giant database. I can find information today with the click of a mouse.

= How do you see the future?

I think I'll be relying more and more on it for information and activities related to my work. As for languages, I'm delighted there are so many offerings in the original language now. I much prefer to read the original with difficulty than getting a bad translation.

= How do you see the growth of a multilingual Web?

I see multilingualism as a very important issue. Local communities that are on the Web should principally use the local language for their information. If they want to present it to the world community as well, it should be in English too. I see a real need for bilingual websites.

*Interview of August 23, 1999

= What do you think of the debate about copyright on the Web?

It is an important issue and will be solved like in the past with all new technologies.

= How do you see the growth of a multilingual Web?

There are two main categories on the Web in my opinion. The first one is the global outreach for business and information. Here the language is definitely English first, with local versions where appropriate. The second one is local information of all kinds in the most remote places. If the information is meant for people of an ethnic and/or language group, it should be in that language first with perhaps a summary in English. We have seen lately how important these local websites are — in Kosovo and Turkey, to mention just the most recent ones. People were able to get information about their relatives through these sites.

= What is your best experience with the Internet?

Getting pictures directly from space (Jupiter).

= And your worst experience?

Information overload. I get too much and I do not have the tools yet to get only what I want.

*Interview of August 30, 2000

= What has happened since our last interview?

The explosion of mobile technology. The mobile phone has become for many people, including me, the personal communicator which allows you to be anywhere anytime and still be reachable. But the mobile Internet is still a dream. The new services on mobile (GSM) phones are extremely primitive and expensive (WAP = Wait and Pay). See my article about Finland (in French).

= How do you see the growth of a multilingual Web?

Multilingualism has expanded greatly. Many e-commerce websites are multilingual now and there are companies that sell products which make localization possible (adaptation of websites to national markets).

= What do you think about e-books?

I have a hard time believing people would want to read from a screen. I much prefer myself to read and touch a real book.

= What is your definition of cyberspace?

Our virtual space. The area of digital information (bits, not atoms). It is a limited space when you think of the spectrum. It has to be administered well so all the earth's people can use it and benefit from it (eliminate the digital divide).

= And your definition of the information society?

The people who already use cyberspace in their daily lives to such an extent that it is hard to imagine living without it (the other side of the divide).

*Interview of July 8, 2001

= What has happened since our last interview?

All I can come up with is the tremendous change I am experiencing with having a "broadband" connection at home. To be connected at all times is so completely different from dial-up.

I now receive e-mail as soon as it arrives, I can listen to my favorite radio stations wherever they are. I can listen to the news when I want to. Get the music I like all the time.

Today for instance, I heard the comments and saw the score board of Wimbledon tennis in real time. The only thing which is missing is good quality real time video. The bandwidth is too low for that.

I now have a wired and a wireless LAN (local area network) in my home. I can use my laptop anywhere in the house and outside, even at the neighbors and still being connected. With the same technology I am now able to use my wireless LAN card in my computer when I travel. For instance during my recent visit to Stockholm there was connectivity in the Hotel, the Conference center, the airport and even in the Irish Pub!

MURRAY SUID (Palo Alto, California)

#Writer, works for EDVantage Software, an Internet company specialized in educational software

Murray Suid lives in Palo Alto (California), in the heart of the Silicon Valley. He writes educational books (e.g., Ten-Minute Grammar Grabbers), books for kids (e.g., The Kids' How to Do Almost Everything Guide), multimedia scripts (e.g., The Writing Trek), and screenplays (e.g., Summer of the Flying Saucer — to be produced by Magma Films, Ireland).

*Interview of September 7, 1998

= How did using the Internet change your professional life?

Professionally, the Internet has become my major research tool, largely — but not entirely — replacing the traditional library and even replacing person-to-person research. Now, instead of phoning people or interviewing them face to face, I do it via e-mail. Because of speed, it has also enabled me to collaborate with people at a distance, particularly on screenplays. (I've worked with two producers in Germany.) Also, digital correspondence is so easy to store and organize, I find that I have easy access to information exchanged this way. Thus, e-mailing facilitates keeping track of ideas and materials.

The Internet has increased my correspondence dramatically. Like most people, I find that e-mail works better than snail mail. My geographic range of correspondents has also increased — extending mainly to Europe. In the old days, I hardly ever did transatlantic pen-palling. I also find that e-mailing is so easy, I am able to find more time to assist other writers with their work — a kind of a virtual writing group. This isn't merely altruistic. I gain a lot when I give feedback. But before the Internet, doing so was more of an effort.

= How do you see the relationship between the print media and the Internet?

For one thing, the Internet serves other print media. My recently published book, The Kids' How to Do (Almost) Everything Guide, would probably not have been done prior to the invention of e-mail because it would have cost too much in money/time to locate the experts. So the Internet is a powerful research tool for writers of books, articles, etc.

Also, in a time of great change, many "facts" don't stay factual for long. In other words, many books go quickly out of date. But if a book can be web extended (living partly in cyberspace), then an author can easily update and correct it, whereas otherwise the author would have to wait a long time for the next edition, if indeed a next edition ever came out.

Also, in terms of marketing, the Web seems crucial, especially for small publishers that can't afford to place ads in major magazines and on the radio. Although large companies continue to have an advantage, in cyberspace small publishers can put up very competitive marketing efforts.

We think that paper books will be around for a while, because using them is habitual. Many readers like the feel of paper, and the heft of a book held in the hands or carried in a purse or backpack. I haven't yet used a digital book, and I think I might prefer one — because of ease of search, because of color, because of sound, etc. Obviously, multimedia books can be easily downloaded from the Web, and such books probably will dominate publishing in the future. Not yet though.

= How do you see the future?

I'm not very state-of-the-art so I'm not sure. I would like to have direct access to text — digitally read books in the Library of Congress, for example, just as now I can read back issues of many newspapers. Currently, while I can find out about books on-line, I need to get the books into my hands to use them. I would rather access them on-line and copy sections that I need for my work, whereas today I either have to photocopy relevant pages, or scan them in, etc.

I expect that soon I will use the Internet for video telephoning, and that will be a happy development.

I do not know if I will publish books on the Web — as opposed to publishing paper books. Probably that will happen when books become multimedia. (I currently am helping develop multimedia learning materials, and it's a form of teaching that I like a lot — blending text, movies, audio, graphics, and — when possible — interactivity).

*Interview of August 3, 1999

= What has happened since our 1998 interview?

In addition to "web extending" books, we are now web-extending our multimedia (CD-ROM) products — to update and enrich them.

= What do you think of the debate about copyright on the Web? What practical solutions do you have?

The secret, I think, is to create information packages that cannot be economically stolen. In other words, the product being sold needs to have more value than a copy. For example, it's currently easier and cheaper for someone to buy one of our books than to photocopy a book — in its entirety. So we try to design our books in a way that makes all the pages valuable, and not just a few pages.

We would like to sell our books online — in PDF format — but have not investigated ways to keep buyers from re-distributing the files. Maybe this is possible through encryption. But we don't know how to do it.

= What is your best experience with the Internet?

Meeting experts and authors who have contributed to our publishing ventures.

= And your worst experience?

Being insulted by a stranger — someone who assumed that I was bad without knowing anything about me.

*Interview of October 10, 2000

= What has happened since our last interview?

Our company — EDVantage Software — has become an Internet company instead of a multimedia (CD-ROM) company. We deliver educational material online to students and teachers.

= How much do you still work with paper?

Very little, though of course there are printouts, especially for meetings when we review manuscripts.

= Will there still be a place for paper in the future?

I hope not.

= What do you think about e-books?

I haven't used them.

= What is your definition of cyberspace?

Anywhere = Everywhere. The simplest example: My mailbox follows me wherever I go.

= And your definition of the information society?

A society in which ideas and knowledge are more important than things.

JUNE THOMPSON (Hull, UK)

#Manager of the C&IT (Communications & Information Technology) Centre at the University of Hull

Since its inception in 1989, the C&IT Centre has been based in the Language Institute at the University of Hull, United Kingdom, and aims to promote and encourage the use of computers in language learning and teaching. The Centre provides information on how computer assisted language learning (CALL) can be effectively integrated into existing courses and offers support for language

lecturers who are using computers in their teaching (e.g. Internet Resources for Language Teachers and Learners).

Hosted by the C&IT Centre, EUROCALL is the European Association for Computer Assisted Language Learning. This association of language teaching professionals from Europe and worldwide aims to: promote the use of foreign languages within Europe; provide a European focus for all aspects of the use of technology for language learning; and enhance the quality, dissemination and efficiency of CALL (computer assisted language learning) materials. EUROCALL supported the creation of WELL (Web Enhanced Language Learning), which offer high-quality Web resources in 12 languages, selected and described by subject experts, plus information and examples on how to use them for teaching and learning.

*Interview of December 14, 1998

= How did using the Internet change your professional life?

The use of the Internet has brought an enormous new dimension to our work of supporting language teachers in their use of technology in teaching.

= How do you see the growth of a multilingual Web?

The Internet has the potential to increase the use of foreign languages, and our organisation certainly opposes any trend towards the dominance of English as the language of the Internet. An interesting paper on this topic was delivered by Madanmohan Rao at the WorldCALL Conference in Melbourne, July 1998.

I suspect that for some time to come, the use of Internet-related activities for languages will continue to develop alongside other technology-related activities (e.g. use of CDROMs - not all institutions have enough networked hardware). In the future I can envisage use of Internet playing a much larger part, but only if such activities are pedagogy-driven. Our organisation is closely associated with the WELL project which devotes itself to these issues.

PAUL TREANOR (Netherlands)

#Created on his personal website a section on the future of languages in Europe

Created in 1996, this website is divided into six sections: Net/cyberspace ideology; geopolitics/nationalism; the future of Europe; urban theory/planning; liberalism and ethics; and academic issues. For legal reasons, some pages with a high risk of legal action are only located at the duplicate website. In this way, if the second website is closed down the first can continue operating.

Paul Treanor also writes articles for Telopolis, a German online magazine.

*Interview of August 18, 1998

= How do you see the growth of a multilingual Web?

You speak of the Web in the singular. As you may have read (on my website), I think "The Web" is a political, not a technological concept. A civilization is possible with extremely advanced computers, but no interconnection. The idea that there should be "one Web" comes from the liberal tradition of the single, open, preferably global market.

The Internet should simply be broken up in multiple Nets, and Europe should cut the links with the US and build a systematically incompatible net for Europe. (...) Remember that 15 years ago, everyone thought there would be one global TV station, CNN. Now there are French, German and Spanish global TV channels.

So the answer to your question is that the "one Web" will split up anyway — probably into these four components:

1. An internal US/Canadian anglophone Net, with many of the original characteristics
2. Separate national Nets, with limited outside links
3. A new global Net specifically to link the nets of category 2
4. Possibly a specific EU Net

As you can see, this structure parallels the existing geopolitical structure.

All telecommunications infrastructure has followed similar patterns. (...)

Current EU policy pretends to be neutral in this way, but in fact it is supporting the growth of English as a contact language in EU communications policy.

*Interview of July 25, 1999

= What has happened since our 1998 interview?

The nature of the Internet has changed dramatically in the last two years. It is no longer possible to speak of idealistic social or political effects: the Net is entirely commercialised. I find this entirely predictable. I have always described the Internet as a liberal structure, a market of information. It is logical that it is now commercialised.

It is often said the Internet is now like television. Certainly the content is determined by market forces and is increasingly split into very large sites with huge quantities of information. In some ways, these are like television channels, but the metaphor is not completely accurate.

= How do you see the growth of a multilingual Web?

The future multilingualism of the Net will be determined by market forces. At present there's no political will to enforce multilingualism. But it is in the commercial interest of the content providers to have material in local languages. At least in Europe. For small languages in Africa, there is no market potential.

= What is your best experience with the Internet?

I have no illusions about the Internet. I can't remember any positive exception to that.

= And your worst experience?

The worst thing I have seen on the Internet recently is the way thousands of people added the logo of the Belgrade radio B92 to their websites, without asking what it was and what politics it represented. In fact it was already broadcasting from NATO (North Atlantic Treaty Organisation) aircraft. The campaign shows how easy it is to manipulate the new media scene...

FRANCOIS VADROT (Paris)

#Founder, chairman and managing director of FTPress (French Touch Press), a cybermedia company

*Interview of May 20, 2000 (original interview in French)

= What is FTPress?

FTPress (French Touch Press) is a French cyberpress company. It has created the following websites:

— www.ftpress.com, which describes the concept, products and structure of the media company, and gives very informal portraits of the team members.

— www.internetactu.com, Internet Actu's website, which carries news about the Internet and new technology. It was launched on 9 September 1999 in its present form. It replaced LMB Actu (Le Micro Bulletin Actu - The Micro News Bulletin), published by the Information Systems Department (Délégation aux systèmes d'information (DSI)) at France's National Centre for Scientific Research (Centre national de la recherche scientifique (CNRS)).

— www.pixelactu.com, Pixel Actu's website, giving news about digital pictures, set up on 31 January 2000.

— www.esanteactu.com, eSanté Actu's website, with news about eHealth — the interface between health (as seen by professionals) and the Internet — launched on 16 May 2000.

- www.lafontaine.net, the website of Jean de la Fontaine (a 17th century French poet and writer, renowned for his Fables), containing all his works, as well as many drawings, pastiches and recordings. It also features a "Daily Fable".

- www.commissairetristan.com, the website of Superintendent Tristan's adventures (Les aventures du Commissaire Tristan), the first (free) online crime novel, co-produced by FTPress and AlloCiné and launched in mid-June 2000.

Many projects are planned in the next months.

= What exactly do you do professionally?

Very briefly, developing a company, FTPress, that specializes in the online press — for the moment, that is, because things are moving so fast that it might not be doing that any more in a few months time. The idea of FTPress is to create professional media, each specialized in an economic area, such as health, cars, digital pictures, human resources and logistics. Each medium deals with the economic, technological, political and social aspects of a sector being changed by the arrival of new technology and the Internet. The first one was Internet Actu, set up at France's National Centre for Scientific Research in February 1996, followed by Pixel Actu (February 2000) and eSanté Actu (May 2000). We began with written products, but we're now focusing on multimedia, including TV programmes in the near future. FTPress also sets up media for outside customers.

= How do you see your professional future?

I see my professional future as a professional "here and now." If you'd asked me that two years ago, I would have said that through working with the Internet (as head of information systems at the CNRS) and writing things about the Internet (as editor of LMB Actu), I was dreaming of creating an Internet start-up. But I was wondering how to do that. If you'd asked me the question a year ago, I would have answered that I'd made the jump, was all set and had told my bosses I was leaving, to go off and create FTPress. I just didn't want to stay where I was any more. I was becoming bitter. I wanted to start my own company or else take a year's sabbatical to do nothing. Today, I'm fully involved in the firm. I feel I'm living some of the stories we read in the press about start-ups. It's hard to do physically because it's all growing so fast. So I see my future on the beach, without the Internet, relaxing with my wife ;-)

= What do you think of the debate about copyright on the Web? What practical suggestions do you have?

It's a valid debate. Some people, often those hiding behind the authority of an institution that ought to respect copyright, don't respect it and have no qualms about putting their names to articles written by somebody else. At FTPress, we more or less follow the guidelines of the GPL (a public licence used as a basis by Linux for free software). Our material can be freely reproduced for non-commercial purposes, with the source mentioned of course. The authors of these articles are paid at a standard rate, have journalist status and are also given stock options in the company. This stake in the firm's activity and its value brings the journalist's pay up to the level for an article written for a given publication. But FTPress no longer pays authors extra if the article is sold to a third party for their own use. I think this is a solution to the problem as far as the press is concerned. But it's a complex issue with many aspects and no single answer.

= How do you see the growth of a multilingual Web?

I don't know how to answer that, except with a truism like "Everyone will keep their own language, with English as a language of exchange." But do we really believe all the world's people are going to communicate in every senses? Maybe. Through written or oral machine translation systems? It's hard to imagine having in the near future the means to translate nuances of thought unique to a given country. We'd have to translate more than the language, and set up bridges to convey feelings. Unless everything is standardized by globalisation. So I think the real issue is a multicultural Internet.

= What is your best experience with the Internet?

When we passed the 10.000 subscribers' mark for LMB Actu, at the beginning of 1998.

= And your worst experience?

The time when we made a mistake in Internet Actu and angry messages from subscribers began pouring in just 10 minutes later. We all started panicking because LMB Actu had just gone private and FTPress, the new company, relied solely on its successor, Internet Actu. If we'd lost a lot of subscribers, we'd've been finished. But in the end, all the reaction allowed us to start a column for readers which was very popular. Mistakes often turn out to be beneficial, as soon as you admit them openly. These exchanges establish links between readers and authors.

ROBERT WARE (Colorado)

#Creator of OneLook Dictionaries, a fast finder of words in 650 dictionaries

*Interview of September 2, 1998

= How do you see the growth of a multilingual Web?

On the personal side, I was almost entirely in contact with people who spoke one language and did not have much incentive to expand language abilities. Being in contact with the entire world has a way of changing that. And changing it for the better! I have been slow to start including non-English dictionaries (partly because I am monolingual). But you will now find a few included.

An interesting thing happened earlier and I think I learned something from it.

In 1994, I was working for a college and trying to install a software package on a particular type of computer. I located a person who was working on the same problem and we began exchanging email. Suddenly, it hit me... the software was written only 30 miles away but I was getting help from a person half way around the world. Distance and geography no longer mattered!

OK, this is great! But what is it leading to? I am only able to communicate in English but, fortunately, the other person could use English as well as German which was his mother tongue. The Internet has removed one barrier (distance) but with that comes the barrier of language.

It seems that the Internet is moving people in two quite different directions at the same time. The Internet (initially based on English) is connecting people all around the world. This is further promoting a common language for people to use for communication. But it is also creating contact between people of different languages and creates a greater interest in multilingualism. A common language is great but in no way replaces this need.

So the Internet promotes both a common language and multilingualism. The good news is that it helps provide solutions. The increased interest and need is creating incentives for people around the world to create improved language courses and other assistance and the Internet is providing fast and inexpensive opportunities to make them available.

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*** END OF THE PROJECT GUTENBERG EBOOK INTERVIEWS (1998-2001) ***

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