

**The French Love Affair with Online Information Systems:
From the 1980's to the Present Day**

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Introduction

In France, even today, there seems to be a consensus that the French lag behind the Americans in terms of technology. As recently as the late 1990's, a French comedy show on television aired a skit in which Frenchmen left France by plane. Once in America, since conventional wisdom had it that the Americans were so technologically advanced, the date on the calendars read 15 years in the future ("Quand j'étais petit"). The fact that this exaggerated and comedic perception of the idea "time change" is grounds for a self-effacing comedy skit at the dawn of the third millennium is telling. However, what is genuinely surprising from a technological point of view is the fact that it simply is not the case now, if indeed it ever was, that the French are lagging in terms of access to technology.

Outside of the Hexagon, France had also developed a reputation as a technology "laggard" over the past few decades ("European Broadband"). Although the French have bought into this mentality to the point of making light of themselves about it on television, this viewpoint is quite unjust. Instead, France has been embracing new technologies since the early 1980's, and on a scale that the United States has only just begun to realize. Furthermore, after a period of transition, modern French culture has drawn on its past online information system use to embrace the modern Internet and to become what can be termed an "Internet society." For the purpose of this paper, an Internet society will be defined as a society that uses the Internet for online communications needs that are information- and entertainment-based as well as for

communications with the global Internet community at large. The Internet is a bridge to the rest of the information society at large, and the French are carving out a niche for themselves accordingly. This paper discusses the history of the French use of online information systems starting with the Minitel, the period of transition to the Internet, and current Internet initiatives in France that establish it as a fully-functioning Internet society.

An Historical Look at Information Systems in France

France, as a country, has long been proud of its penchant for innovation, and specifically for transferring information and the ability to embrace this new technology to these ends. As far back as 1470, King Louis XI of France is said to have invented the first system of mail dispatch using horses. King Henri IV later democratized this system by making it available to the people of the country (“Post and Telephone”). Furthermore, inventions have been one of the high points in French history, a fact of which the French are extremely proud. One needs only consider briefly the French invention of photography and co-invention of the airplane (Pitt). Moving picture images for the cinema could also be taken into account (“Lumiere Brothers”).

During the mid nineteenth century when Americans were still relying on the telegraph for communicating across distances, the French were busy putting into practice a new method for information exchange. Nineteenth century Parisian businesses had adopted unreservedly the efficient new means of transmitting information via telegraph. Once the telegraph system was no longer sufficient to satisfy the demand, the French took the situation in hand and created a system of pneumatic tubes that used bursts of air to propel physical documents under the streets of Paris. This system of information transfer became operational in the 1860’s and was hugely successful (“Courrier, télégraphe, pneumatique”).

The Parisian pneumatic underground tubes transferred information both quickly and efficiently, and the tube network managed to survive long past the invention of the telephone or even of the computer. The system of tubes was not completely retired from service until 1984. Another very French system of information transfer came into being during the last years of the pneumatic tubes' existence: this system was marketed under the name "Minitel." Not unlike the pneumatic tubes, this precursor to the Internet also became outdated before outliving its usefulness, but in the process, it had the vital role of transforming the way the French think about modern communications.

The communication system known as the Minitel was France's second noteworthy and innovative form of information transfer. As an "online" resource, the Minitel transferred information from one terminal to another through linked communication lines (Nielsen). In this way, Minitel technology was very similar to Internet technology of today: it was possible to transmit text-based information from one terminal to another and allowed a user's terminal to access certain services from a distance. Limitations on graphics and protocols made the Minitel different from the modern-day World Wide Web; there was no HTML for the Minitel, only a text-based DOS interface. The Minitel machine appeared in the early 1980's as a small, rectangular box with a screen on the end that served as a text-interface monitor. The user typed commands on a small keyboard situated under the screen. The Minitel was connected directly to the regular phone lines. In this way, the Minitel service allowed users to take advantage of online services and to make secure online purchases without the inconvenience and expense of adding additional phone lines or service cables. This hassle-free aspect of Minitel use was a direct result of the fact that they were simply using their established France Telecom telephone lines to make the online connections (Nielsen).

The average Frenchman had convenient access to Minitel services. Because it owned the phone utility France Telecom, the Minitel's parent organization, the French government had a monopoly on both the telephone service and the Minitel service in the 1980's. This exclusive ownership structure had the advantage of making Minitel access virtually seamless for the general public. Not only did their houses already have the necessary wiring for going online with the Minitel, but the service itself was treated as an extension of their regular phone service. Charges incurred from using the Minitel and purchasing online services were itemized on the regular telephone bill (Nielsen).

Since the Minitel strove to serve the entirety of the French population, ease of use was a top priority for the creators and as a result, the average Frenchman found the Minitel easy to use. The interface, although painfully slow by today's standards, was straightforward and simple to navigate (Nielsen). Some of the services that could be garnered were financial; some were information-based or entertainment-based. The Minitel appealed to both businesses and to individuals and quickly became indispensable in both realms. By the mid-1990's, the Minitel was firmly entrenched as a "part of everyday life in France" ("Clunk-click").

The Minitel's success was no accident. In terms of appeal for users, the reasons for its initial success are potentially as numerous as the French who were able to access it and navigate it with ease. They were the ones who benefited from the information and services that it offered. Thanks to government intervention in terms of pricing, using the Minitel was relatively inexpensive during those periods of rising unemployment concurrent with the Minitel's early success so it was not an excessive financial burden ("Comparative Civilian Labor"). Furthermore, it was a source of national pride; the French knew they were unique in the world in terms of accessing online information from home via a democratic, national system (Gassier).

The timing of the Minitel couldn't have been better: it appeared on the communications horizon at the time when the world was relying on globalized, networked information more than ever before, and allowed the French, as a nation, to jump on the bandwagon (Bender).

As a business venture, the Minitel was the protected service of France Telecom, which took calculated steps to ensure that the Minitel was a household word. One very expensive 'Minitelization' campaign in 1995 made sure that virtually every person in France who wanted a Minitel terminal received one ("Clunk-click"). In October of 2000, another campaign touting the advances in the Minitel and its advantages ran a total of 30 million francs (McGrath). Quite simply, the Minitel was a money-maker for the telecom. In 1997, France Telecom had earned \$500 million from its Minitel services by taking a 50% cut of the cost of service and by giving the rest to the merchants (Edmondson).

Telecommunications Markets of the 1980's and 90's: Toward an Internet Society

In America, the national telephone company monopoly had been dissolved prior to the advent of widespread online communications via the Internet. The American Telephone and Telegraph Company (AT&T) was taken to court by the Department of Justice in 1974. By 1982, AT&T was divested of its local services and the Regional Bell Operating Companies were created in 1984 as replacements (AT&T). Before the creation of the Regional Bells, attempts had also been made in America to create interactive online systems similar to the Minitel. As Americans know from experience, these attempts were not nearly as successful as the great Minitel experiment, perhaps because in America, unlike in France, there was no government utility overseeing the implementation of the service ("Expensive Gamble"). Whereas Americans lost out on teletex technology in the 1980's, they instead gained in fostering competition for

telephone services. By the time dial-up connections to the Internet were a concern to consumers in the early- to mid-1990's, competition had been fostered and phone line communications prices had stabilized at a cost much lower than the cost of a phone call in France. In this way, America found itself well-positioned to give rise to an Internet society.

The French were not blind to the telecommunications situation in other countries or to the fact that a more sophisticated system for going online was gaining in popularity in the United States as the 1990's progressed. The direct connection between the widespread use of the Minitel and the poor integration of the Internet in France is affirmed in several articles from the time (Edmonson). Indeed, Americans were not using a dumb terminal with no computing power such as the Minitel; Americans were going online with personal computers (PCs) that had infinitely more potential for interpreting complicated information transmittals and for interacting with the received information. By the mid-1990's, American home PCs were not only able to transmit textual information like the Minitel, but were also starting to be able to view hypertext markup language (HTML) documents stored on remote servers. The Minitel terminals lacked this type of computing power and would never be able to do more sophisticated online information transfers than the transmission of plain text and text-based DOS commands. When the reality of the situation became clear, the French government allowed in 1997 for the partial privatization of France Telecom as a way of fostering competition in the telecommunications sector and opening up that market ("France Telecom Shares Surge"). With the end of the telephone monopoly, it was finally possible to find cheaper access to computer-related online Internet technology as competitors entered the market.

With rising numbers of French using personal computers and with lower phone costs, the Minitel's halcyon days had passed by the turn of the millennium. Although the Minitel system is

still in use for simple online information gathering by some, it is no longer the driving force behind information access that it once was. Despite France Telecom's continued efforts to revive and modernize the Minitel by providing access to its services via the Internet, the Internet society has clearly replaced the Minitel society in France.

Transition to the Internet

With the reduction in prices for telephone communications, by the late 1990's the French could start to afford the luxury of using a dial-up connection to access an Internet service provider (ISP). Internet access required more than the connection; it also required the use of a PC instead of an inexpensive Minitel dumb terminal. During this same period in time, the sale of personal computers in France also rose: sales in 1998 were higher than ever before, and were 19.5% higher than in 1997. In fact, more than 3.6 million computers were sold in France during that first full year of telecommunications competition ("Biens d'équipement" 54). Not all of the PCs were Internet-ready, but it was the beginning of a trend toward accessing the international information superhighway available via the World Wide Web and getting online as a member of the Internet society.

Around the same time period, French businesses started taking advantage of the emerging Internet technology and availability of phone line dial-up access. According to a document posted online by the French government in the early part of the current decade, only 28% of French companies had Internet access in 1997. Already by the end of 1999, a staggering 69% of French businesses had Internet access ("Internet in French Industry" 1). France telecom had entered into the competition by offering an ISP called Wanadoo. Taking Wanadoo as an example, there were a total of 950,000 subscribers in October 1999, a number that was up almost

50% from 1998 and representing a full 38 percent of France's Internet service customers ("France Telecom's Wanadoo").

While the campaigns in the 1980's and 90's to get the French using the Minitel were geared to democratizing information access, the Internet's appearance had an elitist effect that is still recognized today (Jeanneney). This elitist effect is often termed a "digital divide," where privileged groups have the knowledge and financial resources to acquire and use effectively new Internet technologies. Socio-economic status affects the ability to access and interpret information through online resources. To some extent, it could be said that the Internet introduced a digital divide in France that had not been present in the days of the Minitel in part since Internet use did not benefit from government subventions that made it available to those in disadvantaged socio-economic groups. Indeed, in the early days of Internet use only members of privileged groups with sufficient financial resources could afford a powerful and properly outfitted PC along with an ISP subscription. Demographics also played a part in determining who would access the Internet during its infancy. According to 2002 content on Paris – Ile de France Capitale Économique's web site, "Three out of every four French homes connected to the Internet are found in Paris - Ile de France." This sharp distinction between a wired Paris and a backwards *Province*, between the haves and the have nots, separates the French by geographic location and possibly by education and income levels as well. Such a stark separation runs counter to the culturally French penchant for new technology and the demonstrated acceptance of online environments and soon there would be a need for intervention to ease the digital divide that was unquestionably forming.

In terms of the Internet's progression into French homes, as of November 2000 France was fourth in Europe "with 17.5 percent of homes online, accounting for 4.2 million households"

(“NetValue Reveals Latest European Internet”). After Christmas of the year, in January 2001 that number rose to 18.9%; a full 1.4% of French households got online within roughly a two-month period that encompassed the holiday season. However, while France was struggling to get a fifth of its population onto the Internet that Christmas, over half of American households already had Internet access.

Moving to the present, France boasted 25.18 million Internet users who accessed the Internet either at home or at work in August 2005. The number of active Internet users is quite a bit less, however. Only 16.25 million French are “frequent” Internet users who go online more than once a month. In the United States, over 62% of Americans were Internet users at that same time as opposed to 42% of the French. There is a total of 137.54 million regular Internet users in the United States, over 46% of the population, as opposed to only 26% of the population in France (“Population Explosion”).

As they become more sophisticated Internet users, the French are increasingly moving toward high-speed connections and away from dial-up Internet connections where information transfer is too slow and phone lines are unavailable while the computer is online. The large-scale shift to high-speed connections, usually DSL or broadband cable, followed shortly after dial-ups became widely popular: these connections allow the high speed transfer of information and access to Web sites and do not tie up telephone lines. Specifically, the French began to clamor for Wi-Fi, a wireless Internet connection where a mobile computer has a high speed connection to the Internet through radio waves emitted from a receiver. It was only in November 2002 that the French government opened radio frequencies to the public enabling Wi-Fi use; previously, these frequencies had been reserved for the French military. Four months after Wi-Fi

became commercially available, more than a third of the French administrative departments were experimenting with the technology (Hinman).

By 2003, initiatives to democratize Wi-Fi access were in serious demand. Hotels in France began installing Wi-Fi capabilities, Air France started installing Wi-Fi hotspots in airport lounges, and the French mass transport systems starting getting on the Wi-Fi bandwagon in spring 2003 (“France Telecom and Accor”, “Air France Decides to Offer WIFI”). The Parisian transit system, the RATP, offered Wi-Fi spots along one of its busiest bus routes beginning in summer 2003 (“Paris Subway Revs Up”). And not to be outdone, the French train system, the SNCF, began testing wireless Internet service in TGV or bullet trains between Paris and Bordeaux in November, 2003 (“WiFi Internet Tested”). In all of these cases, commuters or travelers with appropriate computer equipment were able to take advantage of wireless high-speed Internet access.

If the French were using high speed Internet connections while moving around the city, they were also using high-speed connections at work and at home. Broadband Internet use jumped during the same time period, with a 90.6% increase in the number of broadband users in France between 2003 and 2004. Broadband connectivity is found in 23.1% of French homes, which is still behind the United States where broadband capabilities are in almost 30% of homes. Due to the quickness of the switch to broadband, France has actually earned the status as “a broadband leader” thanks to choices that are “as competitive and innovative as anything offered around the world” (“European Broadband”).

Present Day Internet Initiatives

Although business and home users seemed to be the first to embrace the Internet, the educational system and the French government were not far behind. The library at Paris 8 organized a debate in 2002 called “A quoi sert l’Internet à l’université ?” (*What use is the Internet in universities?*), giving a title that was tongue-in-cheek as a way to provoke discussion and consequently to dispel myths (Bertrand). During the summer of 2003, Internet use was freely allowed in some Parisian Bibliothèques universitaires, while others posted signs reminding students that the library is not an Internet café, implying at the same time that bona fide scholarly research could not be carried out via the Internet (Moulaison 5). Nowadays, the French educational system has embraced Internet technology, making computer labs accessible to students of all grade levels and readily providing students with email accounts (Waisse).

In 2005, the French government began taking a more affirmative stance on the value of the Internet in attempting proactively to make French documents available online to French-language users. Whether a reaction to the perceived threat of Anglo-American hegemony in the global Internet society or a reflection of the French population’s increased sophistication in terms of its own Internet use, two initiatives were announced in 2005 that relate directly to the government’s desire to have a presence on the Internet.

When Google announced in December 2004 that its Google Print Library Program would scan the contents of library holdings at Stanford, Harvard, Oxford, the University of Michigan, and the New York Public Library, the entire world took notice (Jardin). In April 2005, Jean-Noël Jeanneney, head of the National Library of France, projected that this partnership between Google and English-language libraries was going to give a virtual monopoly to Anglo-American scholarship in the online context. According to him, this cultural bias would put at an unfair

disadvantage French and other non-English European scholarship (“Google Library Project” Labi). One of his concerns was the scanning of English-language translations of literary works leading to a paucity of original non-English texts in the online environment (Jeanneney). As early as March of 2005, France’s President Jacques Chirac had given Jean-Noël Jeanneney, and Renaud Donnedieu de Vabres, the culture minister, the charge to “analyze the conditions in which the wealth of the great libraries of France and Europe could be made more widely and quickly accessible on the Internet” (“Officials Say” Labi).

Companies such as Yahoo! and Google have been offering French language Internet directory and search engine services for years. Despite this fact, Jacques Chirac has announced that France will be funding a European Internet search engine as a means of challenging such Anglo-based searching mechanisms for the web. Specifically, Chirac “wants to give loans so a French-German partnership between Thomas and Deutsche Telekom can build a ‘multimedia search engine for the internet’” (Sullivan). However, back in 2000, Fortune magazine had reported that successful American Internet undertakings were adjusting their content and business patterns to their European markets. For example, programmers at Yahoo! France’s directory opted to list Movies under Art and Culture on the French portal, whereas in the American version, the category for Movies appeared under the rubric “Entertainment.” There were also more directory divisions created for wine and other culturally relevant topics in French Yahoo! In keeping with the spirit and ritual of the French workday, French programmers took the traditional long lunch break away from the office. This is unlike the American Yahoo! offices where workers tended to eat at their desks during the lunch hour (Nee). Clearly, French interfaces on American search engines are no longer satisfying the French need to control the development and structure of the search capabilities in a world-wide online environment offered

by the Internet. Perhaps these sorts of initiatives on the part of the French government are the most compelling proof that the French culture has embraced the Internet society.

Discussion: The Internet as a Means of Gaining Insights into Modern France

Indeed, the French people have in a very short amount of time come to embrace the Internet. Since French online initiatives are available in real time and for free from America, they are a useful way for instructors of French language and culture to expose students to spontaneous and uncensored blocks of natural language in action. The following are valuable tools not only from an informational standpoint, but from a cultural and therefore pedagogical perspective as well.

One example of an Internet venture that is informational for some and a pastime for others is the Wiki. Wikis are informational web pages that are maintained and updated by users. Wikis take shape to become giant online encyclopedias of the people, a democratic forum where anyone can contribute knowledge and where everyone profits for free. These informal online resource tools are constantly changing and being updated, and many topics are maintained by experts in the field. Wikipedia has a French-language site called Wikipédia that is freely available at <http://fr.wikipedia.org/wiki/Accueil>. In early October 2005, it boasted 170,970 entries in French on topics ranging from Politics and Law to Hard Sciences, from Daily Life to Pastimes (Wikipédia).

Also in the realm of informational as well as entertainment-based Internet use, blogs and blogging have very decidedly become a full-blown passion among the French. “Short for *Web log*, a blog is a Web page that serves as a publicly accessible personal journal for an individual” (“Blogs”). Blogs began in the United States in the early 1990s. As with the Internet itself, blogs

were not popular in France until recently. It was in 2003 that blogging finally came into its own in France. Media resources led the way, providing individuals with the server space and software programs to create their own blogs. The radio station Skyrock was among the first and most influential with their Skyblog space. One million blogs were reportedly housed on the Skyrock server alone in late 2004 (Riche and Roussel). In late 2005, Wikipédia reported around 2.5 million blogs at Skyblog; this is particularly impressive when we remember that there are only about 60 million inhabitants in France.

Wikis and blogs are both excellent purveyors of information, by the French and for the French. In this way, they follow in the tradition of the Minitel with its broad appeal to and access by the entirety of the French population. However, both terms are foreign to the French language, and one, blog, is distinctly of English origin. In order to understand what a blog is, or to understand the kinds of resources it might provide, a certain amount of knowledge is required of any user. One must understand the computer terminology, but one must also know the English term designating the technology.

As a way of keeping the French language accessible to this highly literate population, the Toubon Law of 1994 was instituted (LAW No. 94-665). The law is a mechanism that regulates the use of foreign words in French. In the spirit of keeping information for the French in the French language, the French government officially requested in a communiqué released on May 20, 2005 that the English term blogs no longer be used: instead, the French were to refer to their Web diaries "*bloc-notes*" or "*blocs*" ("Vocabulaire de l'internet"). In light of the number of unauthorized English-language words that one encounters on a daily basis in France, it can be surmised that these sorts of requests are not always heeded. A Google search of Web sites that are located in the domain .fr shows that the sanctioned term is indeed in use. Whether each

instance where “*bloc-notes*” or “*blocs*” appears on a French Web page refers to blogs is unclear, especially since the word is common, meaning “writing pad,” and already is in use in the French language. Although, if one skims the results on the first and most relevant pages of hits, indeed most of the pages include the terms as it refers to blogs. However, similar searches for the terms “*weblog*” and “*blog*” and their unconventional, perhaps somewhat “Gallicized” variants with the plural formed by adding the letter “z,” demonstrate that the unsanctioned English-language versions are very much in use on French Web pages as well. Because these specialized and recently coined terms do not already exist in French, unless they appear as typographical errors in the web page that Google has counted, we can surmise that virtually all of the results for *weblog* or *blog* can only be referring to the online diary tools that the English word connotes.

Table 1

Google Search for French-Language and English-Language Terms Describing “Blogs” and Limited to French Web Sites

Search Query	Language of Search Term	Number of Web Pages Using the Term
(bloc-notes OR blocs) site:.fr	French, government approved	5,470,000
(weblog OR weblogs OR weblogz) site:.fr	English or English-derived	1,700,000
(blog OR blogs OR blogz) site:.fr	English or English-derived	4,880,000

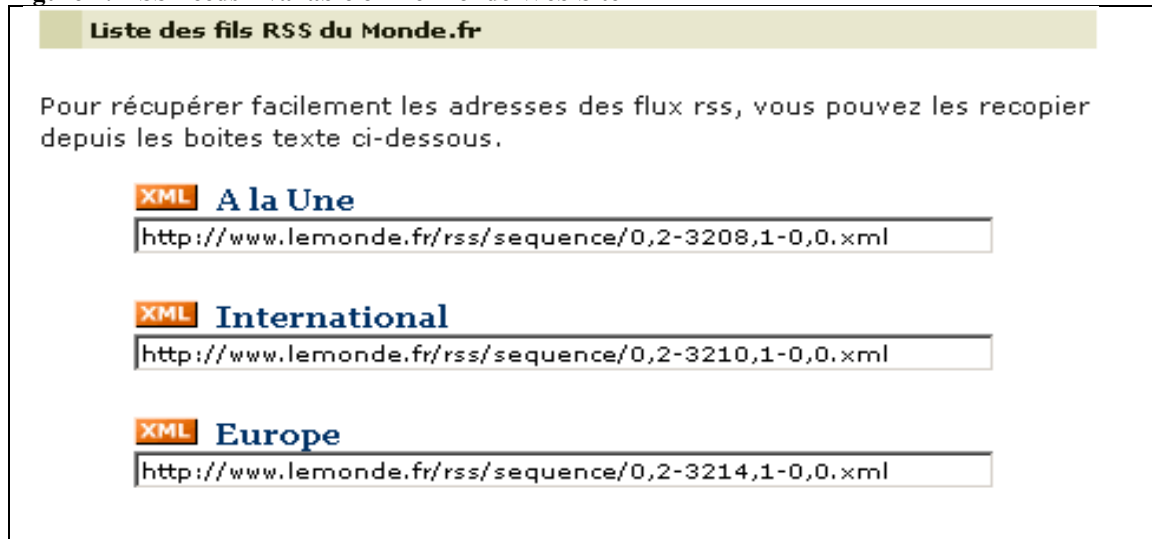
2 Oct 2005

N.B. The results indicate only web pages that have been indexed by Google. They do not necessarily include results from sites that host *blogs* or from Web pages that are password-protected.

These Google searches have the limitation of searching only individual Web pages posted to the Internet at large; they do not necessarily search inside sites that host password protected content and therefore are not able to index individual Web pages that exist behind this type of protective

technological barrier. Although it seems that the French are adhering to the government's request to use "*bloc-note*" to a certain degree, Wikipédia reported in June 2005 that both *Le Petit Larousse* and *Le Robert* have chosen to include the entry *blog* in the 2006 editions of their dictionaries (Wikipédia). All of these efforts, both popular and governmental, have the effect of encouraging an understanding of on-line Internet resources and of lessening the digital divide to a certain degree.

Whereas blogs and wikis allow the French to create content destined for other French people, there are also methods for keeping abreast of current events that are offered through the Internet. As an information-gathering tool, RSS feeds represent a convenient, Internet-based method for receiving electronic news updates in the form of headlines and hyperlinks. The RSS feeds made available on the Internet go directly into an RSS aggregator on an Internet user's PC. RSS stands for "RDF Site Summary" (referring to the Resource Description Framework), "Rich Site Summary," and "Really Simple Syndication" (Tennant). RSS aggregators interpret and make readable RSS content in much the same way that browsers interpret HTML. It is simple and, in many cases, free, to download the software for RSS aggregators. Typically, sources such as news media post small orange boxes to their Web sites advertising the free service. Inside the box, usually either the letters RSS or XML, the type of mark-up language used by the feeds, is displayed. Internet users simply click on these orange boxes (Figure 1) and set up RSS feeds on the topic of their choice.

Figure 1: RSS Feeds Available on Le Monde Web Site

(“Fils RSS du Monde.fr”)

Users then have access to personalized informational content that they can read at their leisure using their PC. For language learners and instructors, the RSS feeds are a hassle-free way to stay informed on current events in France.

It is also possible to stay informed about current events in France by listening to streaming audio from French Web sites through one’s PC; this is most efficiently done over a high-speed Internet connection, but slower connections can also transmit the programs although the results tend to be less consistent. Radio stations such as France Info have been offering Internet versions of their emissions for at least five years. Pop music stations are also making streaming audio of their emissions available for free on the Internet. Besides making available the programming, these stations tend to offer real-time chat rooms and online discussion forums for user postings as well as text messaging services through cell phones; these types of extra options seem to be in lieu of downloadable MP3s for podcasts that are currently offered by American radio and news sources on American Internet sites.

In 2003, like their American counterparts, French university students seemed willing to engage in online file-sharing through sites like *Kazaa.fr*, where movie files were exchanged with

other users in a peer to peer (P2P) environment. Anecdotal evidence supports the theory that this practice has largely fallen by the wayside, primarily because of computer virus threats, spyware hazards, and concerns about getting caught by the authorities since sharing pirated movies is clearly against the law. Also in 2003, the 20- and 30- something set began using instant messaging software to communicate with other online Internet users. Currently this practice remains somewhat common, but is less of a novelty than it once was. One newest used of Internet technology involves Internet telephony using a microphone and speakers set up through the PC. With one particular free software package, it is even possible to call overseas. Although the free connection can last for longer if the call stays within the Hexagon, the free “telephone” connection only lasts 20 seconds on calls to America.

Conclusion

From the mid-1980's to the late 1990's, the French cultivated online access in a way that was democratic, simple, and government-protected by means of the Minitel. With the transition to an information-based society after World War II, there emerged the threat of imposed foreign languages and cultures. David R. Bender argues that culture is impacted by the globalization of information sources (233). This threat was neutralized in France, for a certain amount of time and to a certain extent, by the ubiquity of the Minitel.

Brought on, perhaps, by these same external pressures and the need to be able to compete in a global information society, a period of change took hold as the second millennium was drawing to a close. After a short adjustment phase, the French have made it clear that they are able to adapt to the modern global Internet society, and that they are doing everything in their power to make it their own.

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