Global Communications Newsletter

September 1999

Communicating with Greek Newspaper via the World Wide Web

By Andreas Veglis, Greece

The information age has created many challenges for the traditional established media. The most dominant form of computer-aided communication is the World Wide Web (WWW). The WWW became a major force in computer-mediated communication in 1995-1996. This tool was quickly adopted by the print media. Its possibilities are enormous and among others include interactivity, multimedia features, the possibility of regular updates, and accessibility to archives. The Greek newspapers, following the global trend, quickly created their own online editions.

Until now there have been no systematic surveys of these web pages. This article attempts to give an overview of the presence of Greek newspapers on the WWW. More specifically, it studies the structure of the WWW newspaper sites, their advantages and disadvantages, and speculates on the future of online newspapers in Greece.

The latest data on Greek Internet users can be drawn from research conducted by Amer Nielsen Research and Creative Marketing in the summer of 1997 (RAM 1998). According to this research there were 125,000 Internet users in Greece. The present number is by far greater since the 1997 research found that 353,000 people intended to connect to the Internet in the near future.

Elements under investigation	Newspapers			
	Eleftherotypia	To Bima	Ta Nea	Kathimerini
Links that allow the user to navigate within the article	Yes	Yes	Yes	Yes
Links that allow the user to navigate within the Web site	Yes	Yes	Yes	No
Pictures are included in the article	Yes	Yes	Yes	No
Additional features: video, music, animation	No	No	No	No
Archive search	Yes	Yes	Yes	No

Table 1. *The main characterisitcs of the online editions of Greek newspapers.*

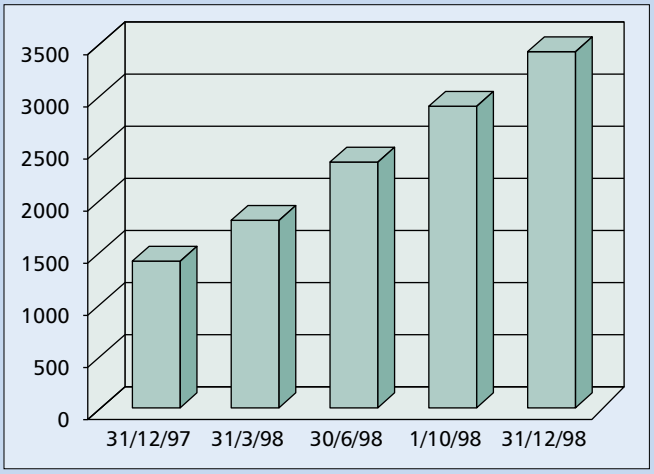

Figure 1. *Number of WWW servers in Greece.*

As far as the number of Greek WWW servers is concerned, at the end of 1998 there were approximately 3385 (Open Services Ltd). The growth in the number of WWW servers over the last year is shown in Fig. 1.

The first WWW newspaper site appeared in Greek cyberspace in 1995 (www.enet.gr). Since then many newspapers have introduced online editions. The problem is that few of them evolved into true online editions. Many of them included in their WWW pages only the front page of their print edition. Others tend to forget to update their WWW edition. From the above we can conclude that few newspapers made a serious attempt to create a real online version, and even fewer evolved to a modern online newspaper.

Greeks living abroad are the prime audience for the Greek online newspapers. In order to protect their paper edition, they update their WWW pages several hours after their publication time. Generally there is no evidence that the online publication of any Greek newspaper has seriously affected the circulation of the paper edition.

Another point worth mentioning is that no Greek newspaper offers its online edition in any language other than Greek, so the editors do not see the online edition as a means of attracting foreign readers.

The online edition of a newspaper has superior characteristics in relation to the ordinary printed newspaper. The WWW is interactive and can include multimedia features (sounds, pictures, videos, and animations). Thus it can be more attractive to the reader (user). It can also offer a selection of functions (searching in the present or past editions) and there is always the possibility of regular updates.

(Continued on page 4)

Report on the First Usage of the TEN-155/QUANTUM "Managed Bandwidth Service" by the ACTS/SUSIE Project (24-25th March, 1999)

By Paulo de Sousa, Belgium

A first intercontinental "virtual classroom" session, including the simultaneous measurement of IP traffic, was held using the new "Managed Bandwidth Service" of the European project QUANTUM and including a transatlantic link from Teleglobe.

Background of the QUANTUM Project

The QUANTUM project follows from the TEN-34 project, that between February 1997 and December 1998 provided the European academic and research community with a stable IP-based pan-European network service. The main objective of the QUANTUM project is the continuation of this stable IP network service but at access capacities up to 155 Mbit/s.

In parallel with the IP service, the continuation service known as TEN-155 provides a managed bandwidth service to the participating national research networks and other specific groups of users.

More and more cooperative development activities in Europe are based on the use of multimedia services, which are only effective if they can rely on high quality of service (QoS) levels that cannot be provided on a loaded "best effort" IP network.

Protocol enhancements such as RSVP, DiffServ, and IPv6, as well as the QoS management inherent in the ATM technology are addressing these issues. It is apparent that for multimedia services to develop on a pan-European scale a new approach to QoS is required. An important element of the QUANTUM project is to trial the new protocols and technology developments both in a test environment and in a wide area network environment with a view toward deploying them in the operational TEN-155 service at a later stage.

A consortium of 16 national research networks, one regional research network, and DANTE as the coordinating partner are responsible for the organization of the QUANTUM project. DANTE is a not-for-profit company that plans, builds, and manages the provision of pan-European Internet connectivity for the European research community.

Background of the SUSIE Project

The SUSIE project has two closely related goals:

. To investigate, implement, and demonstrate charging schemes for a "premium" (better than best-effort) IP service.
. To enable "virtual classroom" sessions between school classes in Berlin, Ireland, Ottawa, and Switzerland (which are the users of the above Premium IP service).

There are several ways of providing a premium IP service, including:

. Pre-configured ATM virtual paths or virtual circuits.
. Integrated services (RSVP).
. Differentiated services.

During its current phase, the SUSIE project is using ATM virtual paths in the backbone network. For the very first time,

(Continued on page 4)

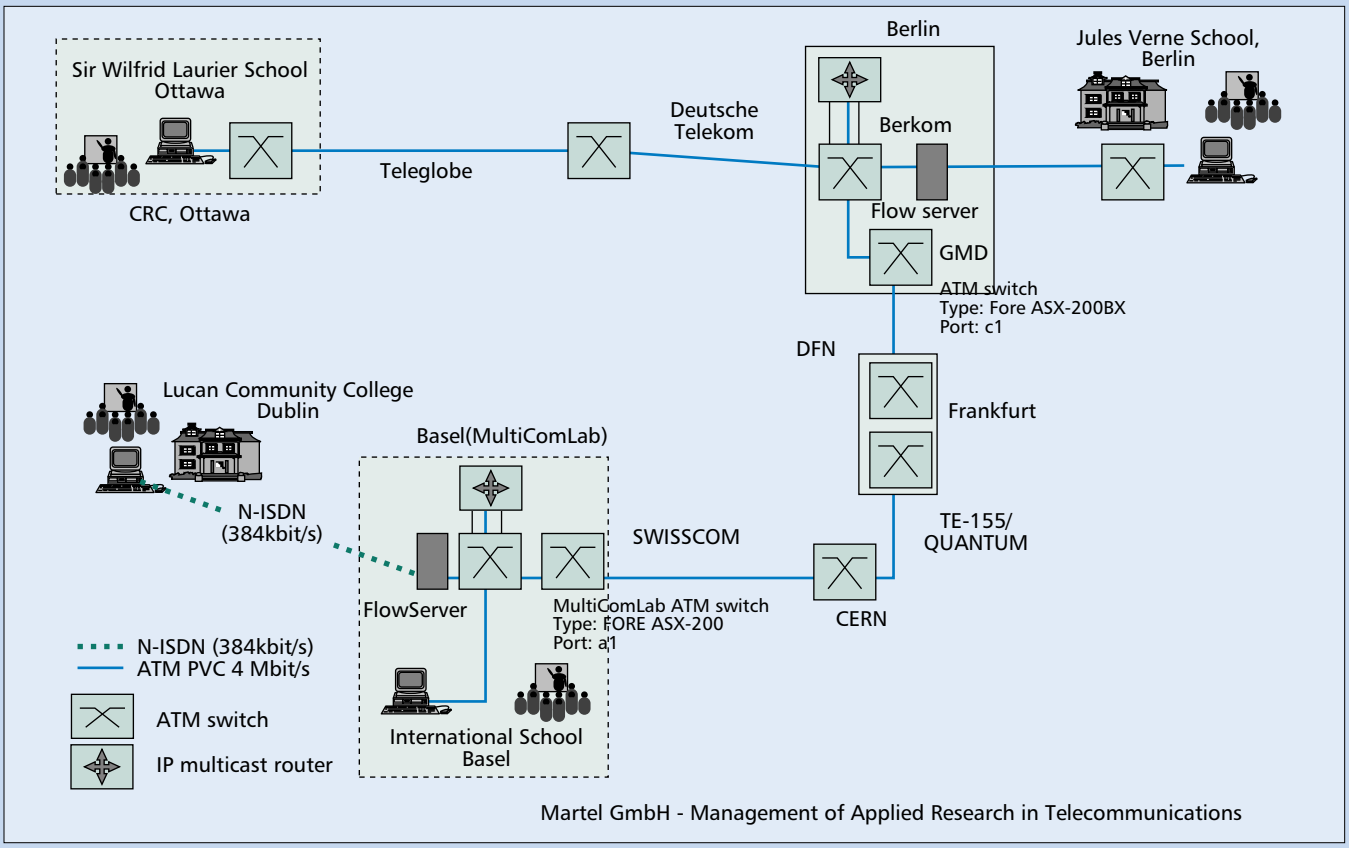

Figure 1. *First "Virtual Classroom" event using the TEN-155/QUANTUM "Managed Bandwidth Service": March 25, 1999 ACTS project SUSIE.*

Promoting the Information Society

By Joan Garcia-Haro, Spain

There is no easy explanation of all the factors contributing to the major changes in the economies of the so-called developed countries. But it is clear that an important and growing part of these economies evolves around the Information Technology sector. Some people refer to this change as the "Digital Revolution" and compare it to the Industrial Revolution. There are many articles linking it to the development of the Internet and trying to measure its impact on the production processes and society in general. New terms such as the Information Society, the Knowledge Society, and the Global Village have appeared. Information has become a new resource and its transformation produces added value and generates wealth. Perhaps it is too early to predict to what extent this new technological and economic revolution will influence society.

National markets and their products become totally visible, and economies and consumption become global. In such a framework, national competitiveness is a central issue. Those countries that recognize this new reality and prepare to adopt the necessary technological and social changes, invest for the future, and produce innovative products will be in a good position to increase their wealth and overtake their competitors.

In Spain many of the early initiatives in this area have been private, spontaneous, and focused on the banking, electronic commerce, and audio-visual entertainment sectors. However, the central government, autonomous regional governments, and town councils are assuming responsibility for developing strategic plans to support and foster actions to promote the evolution to the Information Society. These actions are diverse, ranging from the modernization and expansion of telecommunication infrastructure, especially broadband facilities, sponsoring computer acquisition by small and medium sized enterprises and even individual families, and liberalizing telecommunication and regulatory laws to encourage competition among several operators.

Governments are also promoting universal access to the Internet, trying to avoid social discrimination and to obtain a fair territorial balance between urban and rural areas. The public administration itself is introducing new technologies creating intranets and using telematic tools. Citizens are allowed to communicate and to access (in a secure way by using a citizen's card and guaranteeing the user's privacy) all services that an open administration gives to them. Some other common points among the strategic plans of all administrations relate to the improvement of the quality of life of their citizens, especially regarding fields such as:

- Employment (teleworking).
- Environment.
- Health care (i.e., telediagnosis, aid to handicapped people, etc.).
- Education (deployment of telecommunication infrastructures among educational centers, encouragement of teleeducation, distant continuous learning programs, etc.).
- Logistics and transportation.
- Democracy (teledemocracy to include all citizens in all decision making processes).
- Business (digital commerce and assistance to companies to incorporate new technologies).
- Culture (promoting the creation of multimedia products and national content on the Web, and giving a high priority to the diffusion of the language).

There are reasons to be optimistic. For example, access to the Internet in Spain is growing at a rate faster than in other neighboring countries. In addition, inside Spain this rate is even faster in some autonomous regions, including Catalonia and Madrid. However, there are also some weaknesses that need to be fixed, the most important being:

- Tariffs and taxes on telecommunication services are higher in Spain than in other countries.
- Coordination among different administrations must be improved, and their resources must be better utilized.
- There needs to be a better appreciation among companies and citizens of the importance of evolving to an Information Society.
- More favorable financial conditions are needed to encourage investment in new technologies and innovation.

To find out more about the evolution to the Information Society and specific projects being promoted, interested readers can visit http://www.gencat.es/csi The site includes plans by the Catalonian Autonomous Government and initiatives it is promoting. Links to other country initiatives can be found as well.

Report on ISCC '99

By Asser Tantawi, U.S.A.

The fourth IEEE Symposium on Computers and Communications (ISCC '99) was held in Sharm-El-Sheikh, Egypt, July 6–8, 1999. The technical program was quite strong and interesting. Due to a tight review process, the paper acceptance rate was approximately 50 percent. There was a notable worldwide representation of more than 18 countries. Furthermore, the authors covered a broad range of timely topics.

Presently, two major shifts are taking place in the computer and communications industries. First, the Internet has revolutionized the way people from all around the globe use information. Second, the mobility of people has greatly impacted the way information is accessed. These two shifts resulted in a wealth of research topics that are targeted to create new, innovative information technologies to help realize global reach and secure accessibility of information.

By examining the program of this conference, it is clear that the focus is on these new information technologies. Let us take the Internet first. Starting from the user level, we find research topics related to services and applications, such as service platforms, integrated services, billing, security, service management, and applications in education and other areas. At the information level, the focus is on multimedia information, its engineering and management, and its streaming in the infrastructure. At the network level, we encounter advances in network architecture, network management, protocol design, multicast communication, and quality-of-service issues that will lead to a more capable Internet. The underlying technologies, such as signal processing and coding, form the basis for building the network of the future.

Second, let us consider mobility. Due to increased personal mobility, a wireless environment has been created between the user and the infrastructure. Technological issues related to such a wireless environment are access and networking protocols, cellular network architecture, and user authentication. At the core of this wireless environment, there is a set of wireless

(Continued on page 4)

GREEK NEWSPAPERS ON THE WEB/*(Continued from page 1)*

Based on the above characteristics I have surveyed the most popular Greek newspapers that offer online access. In Table 1 the main characteristics of the online editions are presented.

After a thorough examination of the acccompanying table it is clear that the Greek online newspapers have not integrated multimedia features into their editions. Although audio and video sequences are attractive means of adding variety, there are often problems due to inadequate transmission capacity on the Internet.

One important issue of an online newspaper is the structure of the WWW site. The site must be friendly and easy to use. We can say that with one exception, most of the newspapers tend to reproduce their paper editions in their online editions. Thus the online user knows what to expect of a site, as the online newspaper site employs a similar layout, similar contents, etc. But we must note that an overly strong orientation toward the printed edition could mean that the possibilities offered by WWW are not exploited. Generally we can say that the subject of the topology of an online newspaper is still under investigation. The most dominant approach seems to be the existence of the main articles with a short summary in the front page, along with links to other subjects. Thus the user can easily find the main news.

Of course there are also some disadvantages in accessing an online newspaper. Anyone can read a newspaper, but that is hardly the case for the online edition of a newspaper. The reader (user) must posses or have access to a personal computer (PC) loaded with the suitable software and with an Internet connection. All these are quite simple for a computer user but are very complicated for the ordinary person. You can read a newspaper everywhere, but you can access an online newspaper only from your PC. Other disadvantages are that online newspapers cannot provide the same experience of reading as a print newspaper, and the download times are long. Overall we can say that people have lived so long with the newspaper that it is part of their lives.

From the above it is obvious that the Greek online newspapers are still in their infancy and require much development. But the world of the Internet tends to change rapidly, so no one really knows if the Greek newspapers will have the time to catch up with the other foreign online newspapers, or if this kind of online newspaper will be surpassed by another new Internet service.

ACTS/SUSIE PROJECT/*(Continued from page 2)*

in this session, the ATM virtual paths for part of the connection (between Switzerland and Germany) were provided by the TEN-155/QUANTUM "Managed Bandwidth Service" (MBS). The diagram of the overall network configuration is shown in Fig. 1.

Summary

The intercontinental "virtual classroom" session was a big success. The QUANTUM MBS (using the peak rate CBR VP service) worked perfectly. The SUSIE project is also considering the charging aspects relating to "premium IP" services. Much data was collected in Berlin, and this will be analyzed and reported later. For further information about the trial or the results please contact Martin Potts (potts@tech.ascom.ch).

Both the QUANTUM and the SUSIE projects are co-funded by DGXIII of the European Commission. The Swiss Bundesamt fur Bildung and Wissenschaft also sponsored the session.

REPORT ON ISCC '99/*(Continued from page 3)*

and digital signal processing technologies addressing clarity, reliability, power, and coding.

In the same way that this very place on the Red Sea has seen historical events, we are witnessing the future of computers and communications being shaped before our very eyes. We are privileged to take part in shaping such a future.

The next conference in this series, ISCC '2000, will be held in Antibes-Juan les Pins, France, July 4–6, 2000. Further information may be found at http://www.rennes.enst-bretagne.fr/~afifi/iscc99.html or at http://www.rennes.enst-bretagne.fr/~afifi/iscc.html

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