"A study of Internet use by Greek and British academics. A contribution to the globalisation debate"

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1. Introduction

The rapid growth of new technologies has changed the communication process between people and has also reduced the cost of communication for individuals. The study examines the use of the Internet by a certain group—the academics, in two countries, Greece and the UK (United Kingdom), as well as find out similarities and differences in their use of the Internet. The main objectives of the study are: a) to identify the type of use of the Internet by academics, b) to examine how and if the Internet has affected the way academics work and the way they get their information[1], c) to examine the different use of the Internet among academics of different Departments and, finally, d) to compare and contrast the ways that academics use the Internet in two different countries within the process of globalisation.

Academics from Greece and the UK are part of this research. The reason for this choice is that it would be interesting to examine how this pioneer group uses the new medium in two different European countries. Has the different cultural background of these two groups affected the way that they acquire information and use the new medium? Has the globalisation process affected the academics in both countries? Do they use the Internet in the same way? Have the characteristics of each society and the differences in technology development in each country affected the use of this new medium? Some people believe that with globalisation today all people share the same experiences and use the same things, act in similar ways or they even develop the same habits. Is this really happening or is it simply a misconception that some people or certain nations try to pass on to people?

2. Theoretical Part of the Study

There is rich literature on the development of technology and a lot of theories that refer to the relation of technology and society. There are those who argue that the creation of and the need for technology are closely related to the needs of

[1] The term information includes news, communication and information that academics use for their research and teaching.

society. They see technology as a product of social process. That means that technology has developed and improved according to the needs of society, and is determined by society and its needs. From another point of view, the development of technology can be accidental (Williams, 1974:12), "but its significance lies in its wishes, which are held symptomatic of some of society or some quality of human nature, which are otherwise determined." Nobody, however, denies that when we talk about technology we should always see its uses as they relate to society. Technology is for sure closely related with society, whether it determines it or not.

Robins and Webster (1986:27) refer also to technological socialism. This projection rests on the adage that socialism is a vision, which is practically unreachable. The argument is that, thanks to IT, the dream can be fulfilled, even without the unpleasant implications of political struggle. The idea that through technology, we may produce a better society and that this can be achieved in an easy, evolutionary manner is a favoured theme of futurism. “It often merely suffuses prediction, making its presence felt in assurances that the information society will be a caring, communal, service-oriented one, but the appropriation of socialist language and vision can be quite explicit.”

The concept of technological determinism is found in all popular presentations of new technology. Technological determinism is an immensely powerful view of the nature of social change. According to Mackay (1999:46), new technologies appear as a result of an essentially internal process of research and development, which in turn triggers social change and process. Process, in particular, is the history of those inventions, which “created the modern world.” As Robins and Webster (1999:73) parallel this to “an alien, extra-social invasion, which cannot be prevented from effective massive changes in social arrangements.” The effects of technologies, whether direct or indirect, are as it were the rest of history.

According to Roszak (1998:105) "Ideas create information, not the other way round. Every fact grows from an idea; it is the answer to the question we could not ask in the first place if an idea has not been invented which isolated some

portion of the world, made it important, focused our attention, and stimulated quality." If we extend this point first comes the ideas and then according to the needs of the society the technology of the information is born.

Internet can be seen as the most recent development in communications technology. Although its development began in the 1960s- the Internet became known in the last decade. Different views have been expressed about the content and the value of the Internet. Some people think of it as a gigantic branch of computers connected to one another. Others see it as a collection of programmes, such as e-mail software and World Wide Web browsers. Another view expressed about the Internet is that it is a huge electronic resource or a network of computers that allows people to communicate. In more scientific terms, the Internet can be described as an ‘inter-network of autonomous networks built on the packet-switching pioneered in the early 1970s by ARPANET (Advanced, Research Project Agency). The development of the Inter-network Protocol (IP) enabled the true interpretability among different networks connected to the ARPANET and these inter-operating networks are collectively known as the Internet’ (Kahin, 1991:49). Most industry commentators will agree with a simpler description of the Internet as 'a network of the networks'.

The Internet allows for the international of electronic e-mail, data and text files between mainframe-based computer networks accessible through terminals and microcomputers. The Internet is in essence a computer network that links one public and private computer network and 100,000 computers around the world (Krol, 1992). It provides the users with access to information and with the use of email with access to communication. The Internet also provides information to its users through electronic publishing. The development of electronic publishing offers several advantages to the profession that traditional paper based publishing does not provide. Newspapers and radio stations have a site on the Internet where the user can find all the information he/she needs. The user of the Internet is able to read the daily news through the Internet.

With the improvement of technology today new patterns of communication have been developed. The restructuring of information and image spaces and the production of new communication geography together with the creation of global networks and an international space of information are some of the aspects of technological development. The most recent technological inventions those of radio, television and the Internet have affected the nature of human communication. According to Mohamedi (1995:122), "more and more the world is wired as a global audience with access to electronic media." The radio was the first medium—after the telephone and telegraph, that was able to transmit information all around the world. People were able to listen to what was happening everywhere. Television was another important invention of technology. Information and picture can travel in the whole world today. Although it developed in the 1960s, the Internet became known in the last decade. One of the main reasons of the fast growth of the Internet has been the ease of communication. A computer, a telephone line and a modem are enough to communicate via e-mail. The information available on the Internet is another reason for the rapid expansion of the medium. Some of the facilities available over the Internet include e-mail, Usenet discussion groups, and maybe the most important one—the World Wide Web (WWW). Different views are expressed about the content and the value of the Internet. It is referred to as a huge electronic resource or a network of computers that allows people to communicate but at times as a jargon-ridden techno-jungle.

With the development of the satellite and cable television, people around the world, have the chance, with a cost of course, to look at the same picture and the same channels, watch the same programmes, and share the same experiences. This has resulted in a tendency of globalisation.

According to Featherstone (1990:143), "as a consequence of these technological changes more and more people are now involved with more than one culture." People have the ability to see other cultures and sometimes to adopt things and values that belong to those other cultures. Waters (1995:3), defines globalisation as "a social process in which the constrains of geography on social and cultural agreements recede and in which people become increasingly aware that they are

receded". Giddens (in Curran & Gurevitch, 1991:118) on the other hand believes that "globalisation involves time-space distinction."

Featherstone and Lash (in Featherstone, Lash and Robertson, 1995:1) believe that globalisation is a term used mainly to refer to "changes that have occurred in the structure of economy. It is used to describe a new stage of historical development, whereby the authority and power of the nation is undermined since it ceases to be the key player in determining policies and regulations".

Under the term of globalisation "the nations of the states are seen to constitute a global context in which the world becomes a whole place" (Featherstone, 1990:5). The relationship between different nations has proceeded to a more complex level than simple interaction. All nations tend to form a single unity. Regulation applies at an international level and seems to be outside the control of any one nation, which cannot individually determine its individual course of action. People with different cultural backgrounds have to conform and adjust to this new reality and this is where problems begin to appear. First of all, most nations try to become more powerful and more influential in this new reality. This means that it is actually a mistake to see global and local influences as two completely separate and incompatible entities. Rather for the global to exist, it relies heavily on the local. Thus local is actually included in the notion of global (Robertson in Featherstone and Lash, 1995). A second issue concerning globalisation refers to the structure of economy. Those that believe in globalisation, believe that international companies are those which define the regulations of the market and the global economy in general. However, we should pay attention to the fact that all of these powerful companies have to first subject themselves to some national regulations and laws laid by the country they belong. It is only then, within a particular national policy framework that they can operate at an international level.

Academics have always been seen as a group of people who help the development of technology as they spend a lot of their time on research. Moreover, they are also seen as the pioneer group, a group of people in each society that is closely related to the changes that occur and also as a group of

people leading these changes. Furthermore, academics are familiar with computer facilities and the Internet as they use it for their work.

3. Related Research

One of the first research studies related with Internet services and the academic work was conducted in 1992 in Australia, examining the way academics in Australian Universities use the Australian Academic Research Network (AARNET) to support their professional roles. The study's aim was to identify why the academics use the AARNET. This exploratory study examined three aspects of the Internet use, firstly, which AARNET service the academics use, secondly for what purpose they use it and lastly what are the benefits of the AARNET use. The sample for this research was 20 academics in each Department all of them users of the Internet from 13 universities in Australia. Questionnaires were sent to the academics by e-mail and 79% of the academics responded. Most of the academics that answered had worked in the university for more than 10 years. The results of the survey showed that the service that the Australian academics used more, 99% of the responders, was the e-mail service. Most of the academics used the Internet to support their research. Finally, the majority of the sample acknowledged that they perceived a benefit for each aspect of the academic role from the Internet. Australian AARNET was an important and efficient medium for the academics both as a contact with the rest of the world and as a teaching medium. There was an increased use of the Internet by the academics, even though there were problems of training and use of the new medium.

Another study about the use of the Internet by the academics was conducted in the US in 1994. The purposes of the study were a) to fill in the lack of available literature in the area b) to test new methodological tools, since few 'formal' surveys had been conducted on the Internet c) to secure a higher response rate than from traditional survey methodology due to access to a large number of potential respondents and finally d) to do this at no extra cost since the cost of distribution would be the same for many respondents as well as for a few.

The survey consisted of 14 specific contact areas and included questions about computer experience of the academics, use of e-mail and a variety of Internet sources. The survey was sent to 231 randomly chosen distribution groups from a list of Scholarly Conference assembled by D.K. Kavacs and her directory team at Kent State University. A total of 1,536 questionnaires were completed. Most of the sample that answered to the survey had used computers for more than 13 years and had used e-mail facilities for almost 6 years. Most of the academics used their e-mail in order to communicate with other academics. Most of them did not use frequently Telnet resources that were available on the Internet but preferred to use Gopher quite often. What were the main conclusions of the survey? Firstly, that the Internet was currently a popular method among academics with computer experience to 'do business.' They believed that since business was primarily considered communication among individuals or discussion groups, this could be accomplished through using e-mail. They used the Internet for database access. The second point ensuing from this research study was that the Internet had a number of advantages over other resources being extremely fast, easily accessible, global and interactive, as it outcomes the barriers of time and distance. The main disadvantages viewed in this research were that specialised knowledge was required to access and use the Internet. Also many academics were still not aware of the Internet resources and possibilities and some countries did not have access.

A Ph.D. study about the Internet use in the academia was completed in 1995 by N. Ashley in the US. The study examined the network information retrieval (NIR) among 888 faculty members at the University of Arizona with Internet accessible computer accounts. Ashley reported that respondents from various colleges at the university used 20-39% of available NIR technologies but also indicated that NIR were at an early stage. Questionnaires were sent to all faculty members asking how and why they used the NIR technologies.

White conducted another Ph.D. study in the US, in 1995. He examined a specific segment of faculty members, but included non-users as well, distributing the survey by mail to faculty members in professional organisations related to the study of mass communication, computer behaviour advertising

and public relations. The study found that the majority of faculty members, a 73% of those that responded, used 'computer mediated communications.' Younger faculty members and female members showed a significant higher use in comparison with the rest of the respondents.

In 1994, Chu reported that an e-mail survey administered to faculty at 2 U.S. universities, showed that there were positive relationships between e-mail use and such variables as speciality and experience with computers. Negative correlation, however, existed between age and the use of e-mail. The majority of the faculty members (92%) included in the study used e-mail in scientific communication.

Another important research took place in the Hebrew University of Jerusalem in 1995. The main objective of this study was to verify the influence of a number of parameters on those uses: a) the field and research interests of faculty members b) formal training in the use of the Internet via courses and workshops c) self instruction in the use of the Internet by means of manuals d) general use of computers e) perceived need for information this network can provide. Questionnaires were sent by e-mail to faculty members. 56% of them answered. Afterwards, mail questionnaires were sent to those that had not answered via e-mail. In the study both e-mail and posted questionnaires were sent to 718 faculty members of Humanities and Social Science group (Homsoc) and to the Science and Agriculture group (Sciagr).

The first results showed that the members of each faculty used the Internet differently. For example, (Lazinger, 1997:35), the return rate from the Sciagr subgroup Mathematics, Computer Science and Physics was lower (58.6%) than the return from Humsoc subgroup Sociology, Psychology and Communication (67.4%). 80.3% of the people that answered the questionnaires claimed that they used the Internet a lot but they used it mainly for their e-mail. Another important use of the Internet for the academics in Jerusalem was communication with the rest of the academics around the world in order to co-operate with other academics either in their own country or abroad. They had the ability to conduct research with distant colleagues via the Internet. 86% of

the academics from both groups claimed that they learnt how to use the Internet without receiving any help. Academics from the Sciagr group used the Internet more for their research in comparison with the Humsoc group. Professors used the Internet less than lecturers. Almost all the academics claimed that they wanted to learn more about the Internet as all of them perceived the primary influence of the use of the Internet on their professional life.

In 1995, another research was conducted focusing on the academic use of the Internet in Australia. The research took place in the University of Cambella and its primary objective was to identify the frequency and the type of use that the academic staff made of the Internet during 1995 with a supplementary objective being to record perceptions of users towards the Internet. Questionnaires were sent firstly by e-mail and to those that had not responded through post. The final survey was carried out in two parts: an e-mail message to the academic staff of the University and a paper survey was sent to those that had not responded to the e-mail one. 324 questionnaires were sent by e-mail and post and 243 were returned.

The most important finding of the research showed that e-mail was extensively used by the University of Cambella academics. Most of the academics showed that they used the Internet on a daily basis. 53% of the academics preferred Mosaic to WWW; they found it easier to use. Only 4% of the users used the Internet to access the library services on a daily basis and 22% on a monthly basis. 1/4 of the academics used the Internet in order to participate in on-line discussion groups on a daily basis and 14% on a monthly basis. The research showed that most of the academics did not use the Internet for teaching and they did not distribute lecture notes through the Internet. The final conclusion of the research was that the academics at the time that the research took place did not use the Internet a lot. The main reasons for that were that the academics did not have a lot of free time to use it and also that they had not received any training—so they faced some difficulties in its use. Some of the academics complained about the speed and capacity and included those as some of the reasons for not using it. Members of the faculty of Information Science and Engineering were heavier users than other university staff. Another interesting

point was that older academics used the Internet less than younger ones. Finally, a very significant point was that the academics used the Internet much more in order to communicate than for their research.

In 1996, another study in this field took place in the US. Conducted by Abels, Liebscher and Denman the study explored factors that influence the adoption and the use of electronic networks and network services by Science and Engineering faculty members in small universities and colleges. The study was administered by mail, thus managing to include both non-users of computers and non-users of the Internet in its target population. It explored the use of a broad range of Internet services. The main conclusion of this study, as Abels et al (1996:154) put it, was that "further knowledge of differences in the use of electronic network among faculty by discipline would assist in determining levels of connectivity, priority in providing connection and services offered."

In 1996, Rada et al. published another survey about the WWW and the Universities in Educational Technology. The survey was organised by Washington State University (WSU), in their effort to find out how academics and students used the Internet.

The study focused on the use of the Internet on land-grand universities. Given the related disorder of course material in the WSU site and waiting to systematically assess the extent to which land-grand universities contained educationally significant WWW material a hypothesis was made. The hypothesis was that "information is randomly distributed across a particular university's WWW site" (Rada, 1996:23). 12 universities were selected. A method of randomly traversing the files at a site and evaluating the educational content of each visited file was formulated.

Another study in this field that took place in 1996-7 in Australia is described in Applebee's, Bruce's, & Pascoe's book, *Academics on line- A nation-wide Quantitative Study of the Australian Academic use of the Internet.* The main purposes of the study were to identify the frequency and the type of Internet use by academics within specific disciplines in Australian universities, to record

perceptions of these users towards the Internet together with other demographic data and finally, to explore if more of the use of the Internet was made by academics in universities that were geographically isolated rather than by academics who were in large metropolitan areas.

At the beginning of 1997 a final survey began and lasted till the middle of 1997. The main study involved around 1,054 academics from all Australian Universities. The study tried to draw comparisons between broad discipline areas and between the four larger grouping of staff—Arts and Humanities, Business, Science and Medical Science areas. The survey was conducted through e-mail questionnaires and later through post questionnaires. 51.3% of the academics that received the questionnaires replied. The results showed that most of the academics used their e-mail services a lot, maybe more than expected. Almost more than half of the academics that responded to the questionnaires were members of newsgroups. The reasons why the academics used the Internet was for their research, for personal reasons and for their teaching. Most of the academics accessed the library catalogue weekly. They used most of the facilities for searching what the library catalogue offered. Some of the academics mentioned that the Internet was a waste of time as they wasted a lot of time searching for the information they wanted. Others believed that it offered a lot of useful information. Younger academics published their work on the Internet. Some of them got very upset by system errors and older ones could not find solutions easily. The study also tried to categorise the users into beginners, components and experts without making clear the criteria according to which those categories were formulated. Academics in isolated areas used the e-mail to communicate more frequently than other academics. The main conclusion of this survey was that the academics have gradually increased their use of the Internet. Academics in rural areas used the Internet more than the ones living in metropolitan areas. The use of the Internet at each level of academics was different; lecturers used the Internet more than professors.

In 1997, Stanley published another research study for Ohio State University. This study was designed to assess the impact of the Internet on a group of the

Education faculty. The purpose of the study was to describe and delineate the personal and educational experiences of a group of faculty members who had direct and unrestricted access to the Internet from their office computers. The study explored the barriers these faculty members encountered when using the Internet, the ways they utilised the Internet, the impact the Internet had on their attitudes toward computer technology, and their preferences in connecting to the Internet. Respondents were 10 full-time faculty members who represented the four Departments and one School of the College of Education. Data sources for this study included participation in two types of interviews, ongoing e-mail correspondence between the respondents and the researcher, completion of a grounded survey, and the respondents' personal reflections in the form of a journal. The findings of the study revealed that these faculty members' experiences with the Internet were consistent with many of the reported findings involving the use of computer-mediated communication in higher education, the results of telecommunication studies involving pre-service teachers during early field experiences, and the results of emerging studies involving librarians and the Internet. Problems of comprehension, time constraints, access, and inadequate administrative support emerged as barriers to faculty members' use of the Internet. Respondents viewed the Internet in different ways. Some faculty members thought that the Internet was exciting and powerful, while others thought it was frustrating and created a system of 'haves' and 'have-nots.' All faculty members preferred direct access to the Internet over a dial-up/terminal host connection. Respondents overwhelmingly used Eudora (for e-mail) more than any other Internet-related application

Another study is the one produced by Toms from the University of Florida in 1998. The study was about the instructional use of the Internet by faculty members of the University of Florida. This descriptive correlational study explored the patterns in the stages of concern of the faculty at the University of Florida regarding the innovation adoption of the Internet for instructional purposes. Three research questions were posed. What are the relationships of the level of Internet use for instructional purposes and the level of Internet use for all other purposes to the sequence of stages of concern? Are there significant differences in the peak stages of concern of faculty members

grouped by the extent to which they modify their instructional practices based on how or what students learn? Are there significant differences in the peak stages of concern among faculty members grouped by rank, gender, age, or national origin? Findings included significant correlations between the peak or most intense stage of concern and the level of use of the Internet for instructional purposes, level of use of the Internet for all other purposes and attention to how students learn. However, the multiple regression models produced only two significant predictors of peak stage of concern: level of use of the Internet for instructional purposes and gender.

4. Methodology of the study

In this part of the paper the process whereby the data of the empirical research were collected is going to be described. Data were collected through questionnaires and interviews. A pilot study[2] had preceded the main study in an effort to test the research design and explore attitudes and intentions. After the pilot study the questionnaires and the interview questions have been revised.

4.1. The sample

The study was conducted in two Universities, University of Leeds and Aristotle University of Thessaloniki. The Departments that participate in the study in both Universities were the following: Chemistry, Law, Psychology, German, Italian, Earth Science, Theology, Mechanical Engineering, Chemical Engineering, and Institute of Communication Studies. The questionnaire, was e-mailed (Apand posted to those academics of the two Universities who did not reply to the e-mailed questionnaire. The questionnaire was sent through e-mail to all the full time academics of selected Departments[3] of the two Universities.

[2] The pilot study took place in the University of Macedonia in Thessaloniki, Greece and in the University of Kent in Canterbury, UK between November 1999-February 2000. Two Departments from each university, were involved in the study, the Departments of Business Administration and Economic Studies at the University of Macedonia and the Department of Anthropology and the School of Drama, Film and Visual Arts at the University of Kent at Canterbury.

[3] Chemistry, Law, Psychology, German, Italian, Earth Science, Theology, Mechanical Engineering, Chemical Engineering, and Institute of Communication Studies.

Only, full-time staff members were the recipients of the questionnaire and participated in the interviews. It was deemed appropriate to exclude both Professor Emeritus and part time lecturers from the study because of these slight differences in the existing regulations in the two countries for these particular two groups.

4.2. The questionnaire

Questionnaires were chosen as a relatively inexpensive and reliable tool of data collection from a wide variety and large numbers of people. On the contrary, an ethnographic study with observation was thought infeasible, as the researcher could not possibly observe academics at their work place. Moreover, the decision to use a questionnaire for the research was reinforced by the literature review, which indicated that the majority of research studies conducted in the same field used questionnaires. Nobody can deny that there are some negative implications from the use of questionnaires though. For example, all the respondents might not interpret the questions in the same way. According to Kidson (1985:137), "even if all the respondents agree in their interpretation of a question, their interpretation may not be the same as the researcher's." So if some of the sample understand the question differently the answers they are going to give might not be relevant.

The questionnaire included 22 questions, 21 closed ended and 1 open ended. It consisted of four different parts. In the first part, there were questions of general interest, i.e., questions about the age of the academics, the Department they belonged to, the time they had had access to the Internet and the time they had used the Internet. In the second part, 'The Internet and the News' the questions were about the use of the Internet as a source of news and the kind of news that the academics searched for on the Internet. The third part, 'The Internet and your work' included questions about the Internet as it related to the work of the academics. The final part 'Internet and Communications' included questions about the use of Internet as a communication medium. The questionnaire ended with an open-ended question asking the academics how they would describe the contribution of the Internet to keeping themselves informed.

The first part of the research (e-mailed questionnaires) took place in the period between February-March 2000 and the second part (posted questionnaire) took part in April-July 2000 [4].

4.3. The Interviews

Interviews were also used for the purpose of the study. It was an effort to eliminate the danger of the interviewees misunderstanding the questions. To this end interviews with some members of the university staff were thought necessary at different stages of the study. The personal communication with the academics was essential in order to discuss with them some of the results of the questionnaire. Certain issues needed further clarification, such as academics and globalisation (was globalisation that forced the academics to use the Internet in the way they use it or have they been affected by other factors?). Originally it was intended to interview one academic of each Department of both universities. However, the fact that academics from the German Department of the University of Leeds withheld their consent to take part in an interview, was the reason why the interview of a Greek member of staff of the German Department of Aristotle University of Thessaloniki was not taken under consideration. Eventually, there was an extra interview conducted with a member of the staff of the Chemical Engineering Department in both countries[5].

[4] A certain form of analysis, content analysis was chosen. According to Berelson (1971:18), "content analysis is […]often done to reveal the purposes, motives and other characteristics of the communicators as they are reflected in the content; or to identify the effects of the content upon attitudes or acts of readers and listeners." Since the purpose of this study was to examine the ways that the academics used the Internet as well as to identify their reasons of using it in a certain way, this form of analysis was deemed appropriate and therefore other possible forms of analysis, such as discourse or conversation, were not considered.

[5] The Interviews took place between May-June 2001, in Greece and the UK. They were conducted in the office of the academics after communication with them. If the academics agreed to contribute to the research study, an appointment was made and they were contacted at their work environment. The academics were asked 18 open-ended questions. They had the chance to talk and give all the details they deemed relevant and appropriate and they were given as much time as they could spare.

4.4. Comparison with other studies

It is worth mentioning that other, similar to ours, studies had been developed up to the time that this study was conducted. Most of those researches have used e-mail and post questionnaires, focusing in a quantitative analysis of their results. The following table can provide us with a clear view of the methods used by researchers that examined similar topics. The methods used to collect data in the aforementioned studies were similar to ours. What differentiates the present study from the previous studies is the combination of the use of the questionnaire and interviews.

Method / *Author*			*Interviews*
Bruce, 1994	*X*		
Chu, 1994	*X*		
Applebee, 1995	*X*	*X*	
Lasinger, 1995	*X*	*X*	
White, 1995		*X*	
Abels, 1996		*X*	
Applebee, 1998	*X*	*X*	
Mylona, 2002	*X*	*X*	*X*

Table 1: Comparison with other studies

Moreover none of the above studies examined the different use of the Internet by the academics of different countries. The different use of the Internet by academics was examined in different universities, in the same country. Analysis of the results were made taking into consideration the departments the academics belonged to, their age and gender.

5. Conclusions

The first aim of the study was to identify the type of Internet use by the academics. The evidence received from our research indicated that the academics used the Internet mainly for communication and research and not for news. Relevant research also indicated that among the services offered by the Internet, e-mail was the most favorite use. For example, 99% of the respondents in the research conducted in Australia in 1992 selected e-mail as the service they used more. Most of the academics that responded to the survey conducted in 1994 in the US declared that they had used e-mail facilities to communicate with other academics for almost 6 years. 92% of the faculty members included in the study of Chu in the US in 1994 stated that they used e-mail in scientific communications. 80.3% of the people that answered the questionnaire of the survey conducted in Israel in 1995 claimed that they used the Internet mainly for e-mail communication. The results of the study conducted in the US in 1996 showed that most of the academics used the e-mail services much more than it was expected. Our study confirms these finding as academics of both countries stated that they mainly used the Internet for communication and research.

Recent research, ours included, indicates that the Internet has facilitated communication between academics by making it easier and faster. Being easily accessible, interactive and extremely fast, it eliminates the barriers of time and distance giving academics the advantage to reach each other at almost no cost of time or money. This fast and immediate manner of communication seems to have promoted co-operation between academics. By using the new medium, academics that have never met before have chances to get to know each other, to "talk" to each other, to communicate and exchange ideas very easily contributing to the development of their discipline. Taking advantage of the development of the new technology, academics can be co-authors of papers, even of whole books, thus promoting collaboration and exchange of knowledge and experience. At the level of collaboration, the new medium has radically changed academics' habits.

So far one of the habits that according to the findings of our research has not changed yet is that of reading the press and watching television to access the

news. Academics of both countries that took part in the research expressed their preference in using the Internet as a medium strictly for work and keeping the habit of reading the paper instead of sitting in front of a computer screen and reading the e-paper. This certainly does not mean that they did not use the e-press at all. They used it, however, to reach the information quickly before buying the printed newspaper or watching the news on television. This suggests that they preferred to differentiate their work, which involved the use of computer and Internet services, from their personal leisure and social time. The latter included the comfort and joy of reading the paper or watching TV in their home or staff room atmosphere. It seems that academics wished to separate their work from their leisure. They resisted the loneliness of a strictly personal activity, namely, the reading of the news on the computer, by keeping their habit of shared experience, fulfilled through a discussion on the newspaper news with colleagues in the staff room or a family gathering in front of television.

Another finding of our research was that women from both countries acquired access to the medium later, used the Internet less, and answered the questionnaire of the research at a smaller percentage than men. This finding was in agreement with the findings of other research studies (Bruce: 1994, Applebee et al: 1998) which also suggested that men were more willing to reply but was in contrast with the result presented by the Ph.D. study conducted by White (1995) in the US. According to White, younger and female faculty members showed a significant higher use of "computer mediated communications" in comparison with the rest of the respondents. Another finding of this study was that women in both countries, Greece and the UK, behaved differently than men concerning the kind of news they selected from the Internet. They preferred cultural news while men preferred to look for political, financial and sports' news.

Another significant finding of our research was that Greek academics used the Internet less than their English colleagues. This finding cannot be examined vis-à-vis corresponding data from other research studies as there have not been other studies up to now examining the attitudes of academics towards the Internet in different countries. The difference observed between the Greek and English academics can be attributed to the fact that the medium was developed in Greece

later than in the UK. Moreover, English, the native language of the English academics of our sample, is the prevailing language on the Internet. The shorter acquaintance with the medium, on the one hand, and the necessity to use a language other than their mother tongue to communicate, can probably account for the difference in the use of the Internet between the two groups of academics.

Concerning the degree of the influence that the new medium has exercised on the work of the academics (the second aim of the study), our study indicated that the Internet affected the way academics obtained their information (other than topical news and comment). There was also found a correlation between age, rank and gender and the use of the medium. Younger academics seemed to prefer to use the Internet in order to get any kind of information. Older academics, especially in Greece, appeared keen on keeping their old habits, i.e. reading journals, physically visiting the library or attending symposiums along with the new technology. Age often coincides with rank in the profession. It can explain why lower rank academics appeared more familiarized with the medium and used it more than their higher rank colleagues. These findings are compatible with the data offered by relevant research. White (1995), for example, has pointed out that younger faculty members showed higher use of "computer mediated communications" in comparison with the rest of the respondents. Similar findings were offered by research conducted in Israel in 1995. It was found that senior faculty members (of higher rank) used the Internet less than those of the lower ranks, i.e. professors used the Internet less than lectures. The survey conducted in Australia in 1995 yielded similar findings. Older academics used the Internet less than younger ones. These findings were coupled by the research conducted in Australia in 1996. Younger academics trusted and used the Internet more than their older colleagues and lecturers used the Internet more than professors.

Another finding of our research was that male faculty members more than their female colleagues were influenced by the Internet and used it more for the purpose of gathering information. Women seemed to be more reluctant in the use of the new technology, which could be interpreted as a confirmation of the

stereotype that females are surpassed by males in areas such as Science, Mathematics, New Technology.

Another suggestion ensuing from our research was that the Internet was mainly used as a facilitator to communication with the academic community and as a source of information but was not as popular as a medium of publishing scientific work. It seems that academics are undergoing a transition period in terms of the use of the Internet. Naturally, with its advent, academics had little knowledge of the Internet advantages and no experience of its possibilities. They went through a phase of familiarization and limited use during which they were given the chance to explore its prospects and potential and become less suspicious. Nevertheless, they continued to keep their old habits as they developed new ones. In the future, in all likelihood the Internet will prevail and substitute old methods of communication, publishing and teaching. Until then, most of the academics hesitate to publish on the Internet or to publish only in the Internet. An interesting research agenda could include recording of the habits of young academics brought up in the Internet era as well as detecting the degree to which they preserve and practice old habits and routines.

According to the data of our research, Internet was even less used as a medium of teaching. The students' unequal access to the medium was considered by the academics as a decisive factor for this phenomenon. The use of the Internet as a teaching tool could put at a disadvantage those students who could not afford to buy a personal computer given that the Universities do not provide computers for student use.

Turning now to the different use of the Internet in different University Departments (the third aim of the study), according to the data of our research, the academics of the different Departments used the Internet differently. Academics from the Departments of Engineering dedicated more time to the use of the Internet than academics from any other Department. Academics from the Departments of Science came next with academics from the Humanities and Language Departments following. These findings agree with the data of other research such as the study conducted in 1995 in Israel that suggested that

academics from the Sciagr (Science and Agriculture) group used the Internet more than their colleagues of the Humsoc (Humanities and Social Science) group. Similar suggestions were made by an Australian study, in 1995. Faculty members in Science and Engineering Departments were heavier users of the Internet than the rest of the University staff.

In our study, it was also found that academics from the Department of Communications seemed to use the Internet more than all the other academics in the Humanities Departments. Academics in some Language Departments, i.e., German, Italian did not use it at all as a medium of teaching and finally academics in the Humanities and Language Departments used it mainly for communication with colleagues and students. We should stress here, however, that academics who did not belong to the Engineering or Science Departments started to use the Internet later than their colleagues in those Departments. Again age appeared to be an important factor in the use of the Internet. Younger academics, members of the Humanities and Language Departments, seemed to be keener on using the new medium.

As to the final issue, that of comparing and contrasting the ways that academics use the Internet in two different countries in the context of globalisation, academics in the two countries of our sample presented both differences and similarities in the use. Despite the fact that Greece and the UK certainly have different cultural and historical backgrounds, they still have some relevant common characteristics. One factor which is likely to be of increasing importance in promoting a convergence in the academics' use of the Internet is that both countries are members of the EU. Indeed, according to our research evidence, academics in the two countries already revealed substantial similarities in their use of the Internet. Even though academics in Greece started to use the Internet later, it seems that academics in both countries had similar reactions to the medium as far as getting their everyday news and using the Internet as a research tool were concerned. Differences appeared, however, in the way that the academics used the medium in order to communicate. Academics in the UK used it more and this difference could be due mainly to the fact that they used it for communication with students. Academics in the UK used the Internet much more

for this purpose in contrast with their Greek colleagues who hardly used it at all. This difference is more than likely changing though, as laboratories in Greek universities are becoming better organised partly due to the pressure from the EU for common standards in new technologies and education.

Because of the framework advocated and supported by the EU, academics from both countries are forced to follow common policies on some issues. Academics are encouraged to take part in European projects, to exchange students and ideas, and are obliged at the same time to follow standards that are set by the EU. The result is the development of common habits. Local characteristics still exist within the framework of developing common habits but these too have been influenced and are acquiring European or even global characteristics.

The intrinsic characteristics of academics, those that flow from the value-system which orientates academics towards a global scholarly community, coupled with the policies and practices of the EU, the general trends of technological development, and the impact of specific social policies and economic changes contribute to ensure that both knowledge and the proximate environment of the individual academic may become more global.

The Interviews taken for the purposes of the present study revealed that global orientation had already been present in academic life before the advent of the Internet. As an academic claimed during the Interviews "globalisation in science has existed for years before the Internet, it is not something new. Science is international, global; what the Internet did was to make things move faster." Science, knowledge was ‘global’ long before the invention of the Internet and at each and every moment 'local' knowledge has always been part of the 'global.' Periodicals, conferences and communication through media other than the Internet have always placed science and scholarship at a global sphere. The exchange of ideas and the dissemination of new developments in every discipline have always been at the disposal of academics through periodicals, books, conferences, and academic visits provided, of course, academics could afford all these. Therefore ‘globalisation’ is not something new in that respect, the only difference being that with the advent of the Internet, access to information is not

as restricted by inequalities in resources, as was the case before. The immanent ‘global’ concerns have taken a new form in the light of the imposition of standards and the role of the Internet in acquiring and managing access to resources—funds, as well as information and co-ordination functions. One should not underestimate the likelihood of colonisation of Internet publishing by powerful publishers and the implications ensuing from copyright issues. In that case, the promise of equality of access made by the Internet may turn to a threat of "globalisation at a price."

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