

3. Evaluation of E-learning students' needs

3.1 Aims and Range of the Study

3.1.1 Aims

The aims of this part of the project, which evaluates the e-learning skills and needs of the students through a questionnaire, is based on the request for a profound analysis of the on-line service and didactic needs from the European Community to create virtual mobility between European students.

In the construction of this “educational area”, and more generally, of a “Knowledge society”, the opportunity for the students to express their own opinions on distance learning services was a notable contribution. In fact, through their evaluation of accessibility, the use and efficiency of the electronic services we can improve distance training systems, knowing which, how much and how and for whom this training works best.

The aim of the questionnaire administered to the students is to collect relevant information on their experience of distance training. In fact, the structure of the questionnaire was devised in a way in which the students can **express their satisfaction** with a series of University services and **indicate which services or instruments are still undeveloped**.

The result of the study, however, is not to evaluate the training needs of students, but their amount of prior knowledge, through a series of links between variables, **the factors involved in choosing an e-learning course**. In particular the links make clear the **personal characteristics** (motivational and vocational) and **socio-economic and cultural characteristics** (economic possibilities, technological endowment, access to information, cultural profile etc) that produce the choices, opinions and requests.

The strength of the study is the data on orientation from an **international** (in 6 European countries and a questionnaire translated into 4 languages) and **multi-disciplinary** (from theatre courses to doctorates) perspective, the research of **various types of on-line experience** (campus, single course, faculty) and the **involvement of**

a wide band of students from different degree levels (undergraduate, postgraduate, doctorate etc)

Such comprehensive reach allows the questions of distance training to emerge (firstly, what these would be) above all when, **beyond the diversity of uses and needs**, you can find **similar uses and preferences**. Attention to these elements required the construction of an open and flexible instrument to allow the researchers to explore new and unforeseen hypotheses that explain the behaviour of the students.

3.1.2 Range of the Study & Hypotheses

The on-line questionnaire was divided into **3 general areas**: Sociographic Data, E-learning Services (motivation, use and evaluation) and Technological development. These areas were processed through 33 questions and respond to a series of hypotheses outlined in succession through the questions.

The **personal data** gave the first impression of the students - sex, age, qualifications, family cultural background (surveyed through qualifications), first language, working/university status, Course taken (under/post graduate, PHD). These became the base variables to form hypotheses in the other 2 areas.

- Whether men had greater confidence, motivation and better skills with technological instruments than women. Did men dedicate more time to activities connected with information technology than women?
- How did age change the type, instruction and evaluation of on-line services? Are younger students more competent? What differences are there between teenagers and adults in the type of on-line training requested?
- How does the language used effect access to on-line courses at all levels? Does virtual mobility have linguistic limitations?
- Do full time and part time students have different motivation in respect to e-learning?
- What minimum cultural skills are necessary to be able to start distant learning'
- Is there a level of study (under/post graduate, PHD) that is better adapted to distance learning in terms of access, necessary technical instruments and distribution time?

From the start, questions on the technological **endowment of each student** are present.

Further interesting questions emerge from the information provided by the variables in this area:

- Does the use of the technological instrument allow for job development, training or the socialisation of the subject?
- Are the ability to use and familiarisation with the technical instrument a vehicle for or a barrier to virtual mobility?
- Do the universities provide adequate support to overcome the eventual barriers?
- How do the students view the services offered by the university?

These last 2 questions lead on to the last area of the questionnaire related to distance **learning services for students of universities involved in the research** (see Chapter 2). This area is more in-depth – comprising firstly of a series of questions in which the students must discuss the services they know and use (expressing their level of satisfaction) and state those which they believe need to be initiated. The second part includes questions on motivation and use of e-learning and the students' opinion on past experiences, cost, didactics and skill acquired. The final 3 questions in the area return to defining distance learning accessibility and workability. Many of the hypotheses developed in this area had already been explained in previous questions. Only a few others were added:

- What do the students ask the university? What services, technologies?
- Who uses and requires which services? What motivations are linked to this use or these needs? Is there a connection with the self evaluation that the students give to their computer and technological skills?
- What differences are there in the use and needs of the students who have participated in other experiences rather than those indicated by the researchers? What are the needs of those who have had previous distance learning experiences? Do these subjects have any particular characteristics?

- Does e-learning respond to “expressive” or “utilitarian” motives? Is it a functional mode or an educational investment? Which subjects fall into the first category and which fall into the second?
- How important are cost and mode of access in the use of distance services?
- How the didactics and skills acquired are judged? Is there a link between the evaluation data and the students’ prior skills and the instruments that the students have at their disposal?

To conceptualise and formulate the hypotheses required a great amount of work. In presenting the results of the study after distinguishing these areas, this chapter offers a more comprehensive level of analysis.

3.1.3 Administration

The research involved 6 European countries (Belgium, Hungary, Italy, Spain, Poland & the United Kingdom) and was carried out through a standardised questionnaire which could be completed in Italian, English, French, Spanish or Polish. The administration of the questionnaire was carried out between March and June 2006 and 1199 responses were collected.

In spite of the high number of students participating overall, the numbers collected within each country varied considerably – from more than 600 in Italy to only 12 in Great Britain. This discrepancy is due to various possibilities including the instruments available to each university to trace the students. The visibility of the questionnaire on line and the management of the students was one of the problems during this phase of the research. The researchers could manage the questionnaire in 3 ways:

- Every on-line campus could send emails requesting students to participate in the study from a mailing list of those enrolled.
- Through a “pop up” on the homepage of the campus analysed.
- Through advertising in the campuses.

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On the other hand we received “spontaneous” contributions (270 questionnaires or 23%) from students who weren’t enrolled in one of the identified experiences but who were interested in e-learning and this further enriches the potential analysis of orientation needs.

From this starting point it is opportune to point out that this is a self selected reference population and not representative of all distance learners but it does encompass a wider range of subject typologies, uses and necessities related to the services and online educational activities. However they do not have a statistical significance but the relationship between the comparative variables describe the data collected and help formulate new hypotheses and interesting considerations on the aims of the research.

The following paragraph (3.2) is a brief note on methodology, introducing the database and the principal actions effected in the preparation of the analyses and finally, specifying the statistical analysis presented in paragraph 3.3.

3.2 A Note on Methodology

3.2.1 The Database

The questionnaire was administered on line through a link to: <http://netpersonalization.telemakos.it:8080/easy/admin.do> .

The main advantage of surveying the data this way is that you have a complete database at the close of the study and it saves time. In fact through a simple function on the project Easy website (www.easy-elearning.net) it is possible to export the data in Excel format. By closing the questionnaire we mean the moment in which the researchers decided to export the “definitive” and not the suspension of the survey when it is still possible to fill in the questionnaire and other times when it is still possible to extract other cases to monitor further results.

Once received the Excel File is converted into the SPSS (*Statistical Package for Social Sciences*) format, software used for statistical analysis. In the matrices for the variables provided, we have attributed labels and, most importantly, labels for every previously codified mode. In the questionnaire are different types of questions (open/closed, multiple choice etc.) that require different codification and statistical treatment. the codes of every variable can be found in the code book, while the analyses are specified in the following text..

3.2.2 The Preparation of the Data

Having shown the positive aspects of the on line questionnaire, we now turn to the more problematic aspects of this mode of administration. The on line questionnaire shows the effects of not only of the absence of the researchers (incomprehension of the questions and incomprehension of the responses etc) but also mistakes in the use of the instrument and the gap between hard copy and computer questionnaires which in some cases have cancelled out the effect of the question construction. These problems only come to light when analysing the data. For example:

- The loss in the initial value of some variables that have changed meaning. Such is the case in Question 33 which on paper was a question with one response

while on-line became a multiple choice response. The initial idea was to point the subjects towards one answer; this mistake has led to the construction of a typology based on a combination of possible responses.

- The loss of some information due to the drop down menu. Some responses were invalid (e.g. nationality in the case of 100 Albanians) or were substituted with the average of every country (e.g. in the case of age, the more than 50 subjects over 80 years old).
- The necessity to re-codify through the construction of new variables without losing data (as in the case of question 3 which provided a lot of correct information with the modality).

The analysis of frequency is the most important analysis and allows for the preparation of:

- The examination of the distribution of cases between different modalities of variables in the matrices and the “cleaning of the Wilde codes” which check and correct the possible values of implausible answers (e.g. through typing errors)
- The correction of imbalanced distribution. The premise of the following analyses is that the distribution is balanced between the variables. If many responses are concentrated in one modality, a reconstruction of the variables is required through re-codifying the same variable or creating a new one. For example in the second case, the construction of variables of typology through the intersection of two (or more) variables.

3.2.3 The Analysis

The first analysis of the data is this “Single Variation” analysis, an indispensable phase for all the further procedures, not only because it tidies up and organises the database but also establishes the first impression of the data, the first ideas, and often gives rise to unforeseen questions leading in turn to new hypotheses (e.g. The feedback related to students from campuses not previewed). The results of the single variation analysis were presented in a simple distribution table of frequency in frequency totals and percentages.

The second type of statistical processing was a “Bi-Variation” analysis which examines the trends linked to 2 variables in order to describe the incidence of different operative tracks. Remember that the test did not have statistical significance but purely a descriptive and explorative purpose. The results of the Bi-Variation analysis are presented in a double entry statistical table on in bar charts (in the case of qualitative variables) or box plots (in the case of mixed variables) to clarify the difference between the averages of a variable dependent on diverse groups identified from the values of explicit variables. Frequency percentages are used for the analysis, reporting the total values for the marginal frequencies for every line, column and total.

To explain the results following the 3 areas of the questionnaire, the following paragraph is divided into the following subsections:

1. The distribution of the 1199 questionnaires in the participating countries and campuses. (3.3.1);
2. A presentation of the reference population according to vital statistics (3.3.2);
3. Analysis of the on-line services offered by the universities.
4. Analysis of the technological skills and motivations of the students (3.3.4)
5. Analysis of the on-line needs of the different types of students studied. (3.3.5)

3.3 Results

3.3.1 The Questionnaires Collected

Table 3 puts in evidence the distribution of the questionnaires in each participating country

First of all, 2 opposing tendencies emerge regarding the on-line success of the survey.

- Warwick University (U.K.). In the U.K. it was not possible to access a student mailing list and so the survey was carried out, predominantly through the use of Pop Ups on the home page of the virtual campus. This probably has not created the towing effect that would have personalised the involvement of the research.
- The Universities of Calabria, Milano Bicocca and the University of Poland had the highest number of responses. This is probably attributable to the high motivation of the partners of the research. Those responsible for the research are in fact the subjects responsible for the campus; therefore it was possible to access the students with greater ease.

Tab. 0.1 Population Distribution by Country: Total & Percentage

Country	Total	% of Total
United Kingdom	12	1.00%
Hungary	51	4.25%
Belgium	97	8.09%
Spain	116	9.67%
Poland	233	19.43%
Italy	690	57.55%
Total	1199	100.00% (1199)

The on-line survey aimed to get feedback from the students on e-learning experiences that were proposed by the partners in the preceding phase of the project. Such an intention can distinguish between the students of the campuses, courses or faculties selected by the partners, the ones who attended the campuses that were part of the study and students who attended other campuses not directly involved in this research. Furthermore for some campuses of the study, some questionnaires were not filled in.

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Table 3.2 collects the details of all 46 on line campuses by country. From the table you can see that Italian campuses administered the highest numbers of questionnaires with 57.55% of the sample. The case of Poland, with 9.67% of questionnaires administered, This is another significant statistic in light of the country's recent admission to the EU.

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Tab. 0.2 List of E-learning Experiences for each of the 6 countries related to the questionnaires collected. Totals and Percentages (on total number allowable and total number completed)

	Campus	Tot	% of the 46 campus	% of total
Belgium	Université Catholique de Louvain - Course on-line in French	39	4.22%	3.25%
	Université Catholique de Louvain - Course on-line in Sociology	19	2.06%	1.58%
	Université Catholique de Louvain - Course on-line in the Sociology of work	15	1.62%	1.25%
	Université Catholique de Louvain - Course on-line in Medicine	1	0.11%	0.08%
	Technologies of education - Université Catholique de Louvain	0	0	0
	Socio-educational communication - Université Catholique de Louvain	0	0	0
	All disciplines - Facultés Universitaires Catholiques de Mons	0	0	0
	Supply Chain Management - Ecole de Gestion de l'Université de Liège	0	0	0
	Course in French for Economics and Business - Université d'Anvers	0	0	0
	Social action and health - Agence Alter Echos	0	0	0
	TOTAL For BELGIUM	97	8.01% (929)	8.09% (1199)
Spain	Universidad del País Vasco (UPV-EHU) - Masters online in International Cooperation, Development Policies'	30	3.23%	2.50%
	Universidad de Sevilla - Post-Laureate Course in Pharmacy and Toxicology'	24	2.58%	2.00%
	Universidad de Granada - Masters on-line in Anthropology and Forensic Genetics; Criminology'	12	1.29%	1.00%
	Universidad de La Coruña (UDC) - Masters on line in Social Services, Social Care, Psychology'	12	1.29%	1.00%
	Spanish Language - Universidad de Murcia	9	0.97%	0.75%
	Campus Virtual Compartido (CVC-G9) - Online Course in Environmental Studies'	8	0.86%	0.67%
	Universidad de Zaragoza - Course online in Law, Government, State administration'	5	0.54%	0.42%
	Universidad Politécnica de Madrid - Training course online in Science and Engineering'	4	0.43%	0.33%
	Universidad Politécnica de Valencia (UPV) - Post-Laureate Course in Computing and Internet e-contents'	4	0.43%	0.33%
	History, Musicology - Universidad de La Rioja	0	0%	0%
Universidad de Oviedo - Master online in Mathematics, Engineering	0	0%	0%	
	TOTAL For SPAIN	116	11,63% (929)	9,67% (1199)
Hungar	Central European University - Distance Archiving in History'	17	1.83%	1.42%
	'Central European University - Academic Support - Writing on line'	4	0.43%	0.33%
	ECDL, Digitalizator - Hungarian Association of Content Industry	0	0	0
	TOTAL For HUNGARY	51	2.26% (929)	4.27% (1199)

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	Campus	Tot	% of the 46	% of total
Italy	University of Milano-Bicocca - Course on Teleconferencing in Nursing'	205	22.07%	17.10%
	University of Calabria - Post Laureate on-line Course in General Pedagogy, Didactics, Sociology, Communication'	176	18.95%	14.68%
	University of Rome 'La Sapienza' - On line services of the web site of the Faculty'	70	7.53%	5.84%
	University of Milano-Bicocca - Blended Course in Tourist Sciences and local development'	51	5.49%	4.25%
	Università Marconi (Italia) - Online Faculty in Law, social science, economy, litterature, applied science and technology, educational science'	19	2.05%	1.58%
	University of Milano-Bicocca – Online Pre-course in Mathematics'	13	1.40%	1.08%
	Università Nettuno (Italy) - On line University in Law, social science, economy, literature, applied science and technology, educational science'	5	0.54%	0.42%
	University of Milano-Bicocca - On-line Doctorate in Sociology'	4	0.43%	0.33%
	TOTAL For ITALY	690	58.45% (929)	57.55% (1199)
Poland	Tischner European University - Kracow - Course on line in International relations, sociology'	106	11.41%	8.84%
	Warsaw School of Information Technology - Blended Faculty of Computer Science, Management and Marketing'	53	5.71%	4.42%
	University of Information Technology and Management - Kracow - Online Course in Economy, Administration, Computer Science, Journalism, Tourism, Ecology'	12	1.29%	1.00%
	Gdansk University - Degree course in Mathematics, Physics, Chemistry, Biology, Geography, Biotechnology, Economy, Administration, Law, Social Sciences, Computer Science'	4	0.43%	0.33%
	TOTAL For POLAND	233	18.84% (929)	9.67% (1199)
United Kingdom	University of Birmingham - Online course in Neurological rehabilitation'	4	0.43%	0.33%
	University of Warwick - Division of Engineering'	1	0.11%	0.08%
	University of Warwick - Department of Sociology'	1	0.11%	0.08%
	Business Studies - University of Warwick	1	0.11%	0.08%
	University of Oxford - on-line Master in Evidence Based Health Care'	1	0.11%	0.08%
	Theatre Studies - University of Warwick	0	0	0
	Statistics - Coventry University	0	0	0
	Sociology - University of Wolverhampton	0	0	0
	Legal Research Skills - University of Oxford	0	0	0
Education - University of Oxford	0	0	0	
	TOTAL For the UNITED KINGDOM	12	0.86% (929)	1.00% (1199)
	Total	926	100% 926	100% 1194

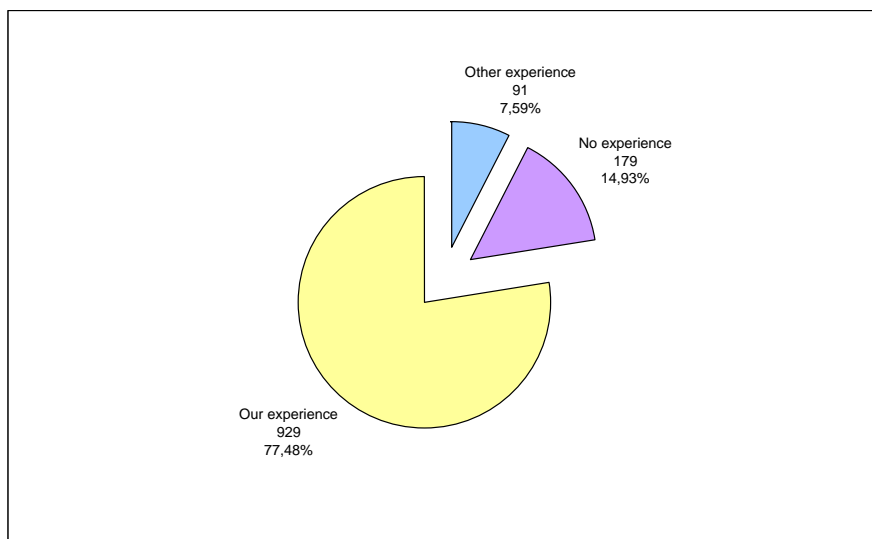
As already stated, the questionnaires collected also comprises a percentage of students (22.61%) who did not indicate one of the 46 experiences previewed. About one third declared that they had not taken part in one of the experiences listed but had taken part in another example of on-line training while the other two-thirds were those who had never taken part in any form of distance learning at all.

Of note is the data related to the 25% of students who had never had a distance learning experience who actively participated in the research and expressed a real interest in using information technology in training, which we could risk to read as a need. The table puts in evidence the interest in participation in distance courses in countries like Italy , and the polarising process in Great Britain (as stated before, due to administrative problems rather than social and cultural differences). You can see this proposition also in the pie chart (3.1)

Table 3.3 shows the distribution of the questionnaires in each country.

Tab. 0.3 Distribution of the Questionnaires not attributed to the 46 Experiences according to country of origin. Total values.

Country	I have never taken part in one of these courses but I have had another distance-learning experience	I have never taken part in one of these courses or another distance learning experience
Belgium	4	19
Hungary	3	27
Italy	38	109
Poland	41	17
Spain	3	5
UK	2	2
Total	91	179



Graph. 0.1 Distribution of the questionnaires based on e-learning experiences undertaken (experiences indicated, other experiences, no experience at all.)

The diverse composition of the students makes the analysis of the results more interesting. Such as the evidence of the variety of distance learning experiences on one hand and the success of the survey to reach students beyond the 46 campuses of the study (adding together the 2 figures referring to other experiences, more than 22% of responding students had not used the services and didactics of the Campuses studied).

3.3.2 The Socio-Demographic Characteristics of the Students

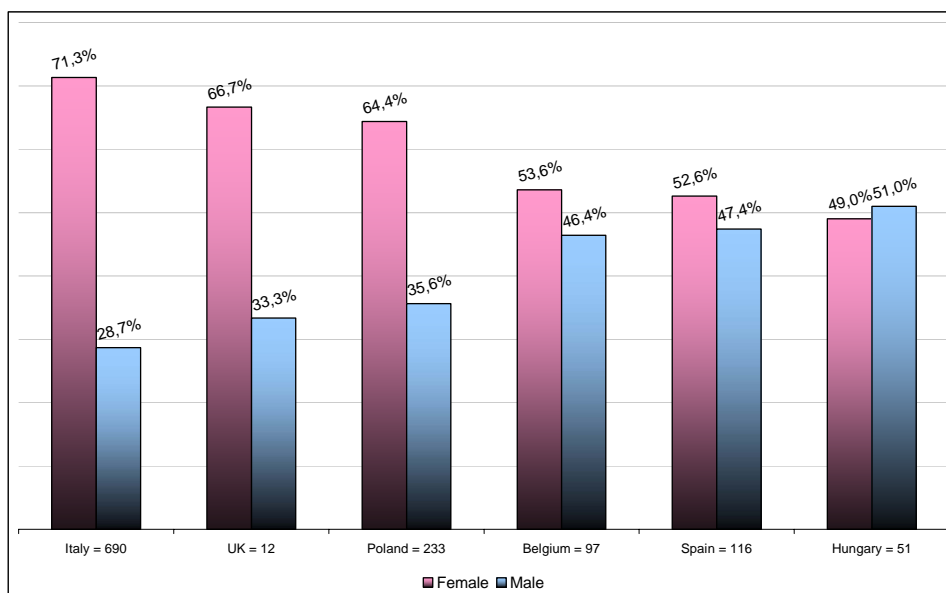
In regard to the nationality of the students we can see from table 3.4 the great multiplicity of other nationalities in respect to the 6 partner countries. It is difficult to reflect accurately on this variety of nationality but it perhaps emphasises the strength of the on-line instrument in reaching students of diverse nationality (who probably found themselves in the research countries because of their own studies).

In this sense the accent is on discriminating factors that can characterise classification in the language belonging to the country of origin. For example, all the students from Eastern European countries are attributed to the Romanian Linguistic area but are predominantly referred to Hungary, Latin Americans to Spain etc.

Tab. 0.4 Distribution of the Questionnaire to Diverse Nationalities within the 6 Partner Countries:

Nationality	Tot	Nationality	Tot	Nationality	Tot
Romania	20	Jamaica	2	Greece	1
Switzerland	7	Kazakhstan	2	Greenland	1
Colombia	5	Moldova, Republic of	2	Israel	1
Canada	4	Peru	2	Latria	1
France	4	Turkey	2	Luxemborg	1
Japan	4	Ukraine	2	Morocco	1
Jersey, C.I.	4	Algeria	1	New Zealand	1
Mexico	4	Australia	1	Qatar	1
Russian Fed.	4	Bhutan	1	Serbia-Montenegro	1
Germany	3	Chile	1	St. Melena	1
Honduras	3	Eritrea	1	Tanzania	1
Portugal	3	French Guaina	1	Uruguay	1
United States	3	French Southern Terr.	1	Uzbekistan	1

Generally speaking, the students who responded to the questionnaire were predominantly women, in fact 65.72% of the sample were women. In Italy the dominance of women was most marked (71.3%) while Spain, Belgium and Hungary showed a more balanced distribution, the latter with a majority of men, albeit only 1%.

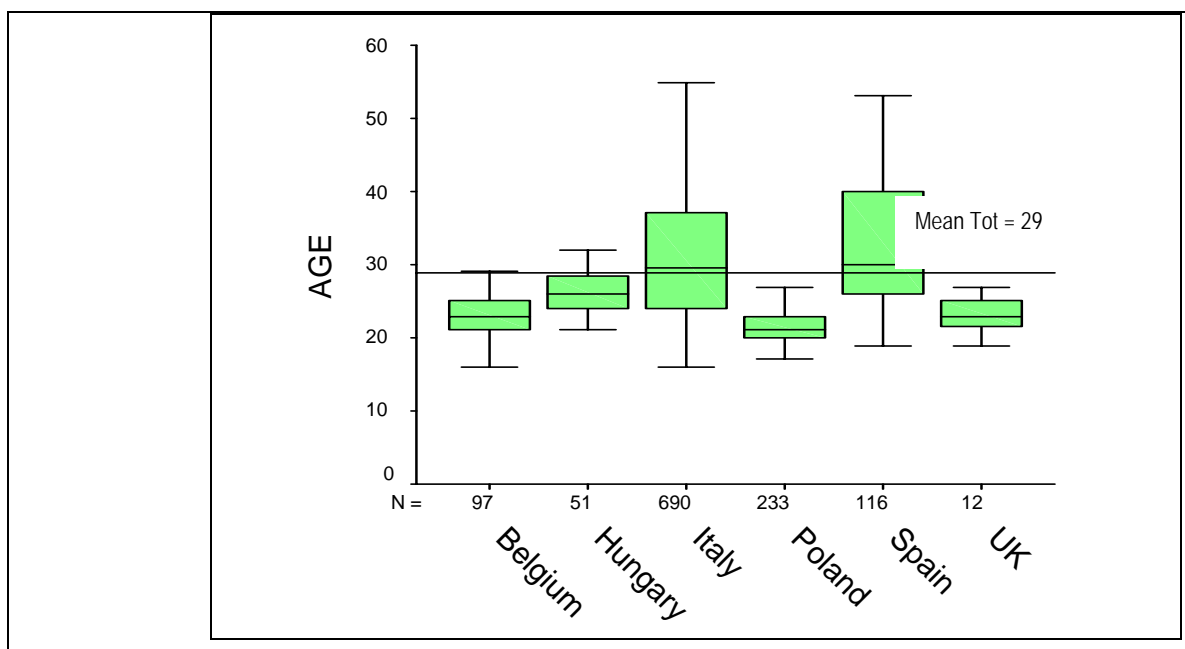


Graph. 0.2 Percentage Distribution by Sex & Country. (Total population 1199)

Considering the average age of the students by country, we can see (graph 1.4) that the average minimum was 22 years (Poland¹) and the average maximum was 33 (Spain). Italy and Spain contributed to raising the overall average to 29 years. This is probably attributable to the different approach to distance learning in each country. This also confirms the research carried out in Italy in the A.A. in 2004/5 which showed that the average age of those enrolled in on-line courses was 30 and 75% of the population was over 25. Also consider that this is probably the first cycle of degrees via the web.

Remember also that in Spain, where there is the highest rate of students using the web, almost everyone has a broadband connection and are much more familiar with computer technology than in other countries. What's more, Spain had the first European example of an on-line university.

Last but not least, at the request of the students, it was also possible to receive snippets of information via sms. There was no notable difference in age or gender (M 28.95%/F 28.54%)



Graph. 0.3 The average age of students by country

¹ According to recent research conducted in Poland, the average age of enrolled students is around 30. The majority (75%) are male, 70% work and 10% live abroad (France Germany and Australia) 70% live in the major Polish cities. This last fact is not accidental as broadband access is fundamental to online training and only available in the large urban centres. www.puw.pl/english.

Regarding the University² and working status of the students we can make the following observations:

- The population is distributed fairly uniformly in terms of university status, in fact, only doctorate students represent a small part of the survey (12.1%) while the remaining 90% is distributed evenly between the other 3 categories (First Year Students 30.9%, Under Graduates 26.3%, Post Graduates 30.8%)
- On a country by country basis the distribution is quite diverse. In Spain and Hungary Post Graduates dominate Under Graduates in Belgium and First Year Students in Poland. The U.K. and Italy present a more even distribution even if in Italy there is a slight predominance of Post Graduate students.

Tab. 0.5 Distribution Percentage by University Status and Country.

	University status					Total
	First year student	Under Graduate	Post Graduate	Phd		
Country	Belgium	33.0%	44.3%	9.3%	13.4%	100.0%
						97
	Hungary	3.9%	—	68.6%	27.5%	100.0%
						51
	Italy	26.1%	26.5%	36.1%	11.3%	100.0%
						690
	Poland	54.5%	30.5%	3.9%	11.2%	100.0%
						233
Spain	21.6%	12.9%	54.3%	11.2%	100.0%	
					116	
UK	33.3%	25.0%	33.3%	8.3%	100.0%	
					12	
Total	30.9%	26.3%	30.8%	12.1%	100.0%	
	370	315	369	145	1199	

Table 3.6 presents the distribution of the students according to working status by country.

- Almost 50% of the students fall into the category of Full Time Student while 31.2% are Full Time Workers and only around 10% in each of the intermediary categories.
- The difference in university status and working status follow similar trends to that of age. All the countries, except two, show a predominance of Full Time Students, while in Spain and Italy Full Time Workers predominate.
- Finally we can also see that the intermediary categories of part time students or casual workers represent a small percentage in all the countries.

² For a more thorough of the distinction between the 4 types of students and their different needs, see paragraph 3.3.5

Tab. 0.6 Distribution Percentage of Students by Working Status and Country

Country	Working status				Total
	Full time student	Part time student	Student with some part time work	Full time worker	
Belgium	69.5%	1.1%	13.7%	15.8%	100%
Hungary	86.0%	6.0%	2.0%	6.0%	100%
Italy	34.7%	6.8%	14.5%	44.0%	100%
Poland	75.0%	18.1%	1.3%	5.6%	100%
Spain	30.1%	11.5%	11.5%	46.9%	100%
UK	72.7%	—	18.2%	9.1%	100%
Total	49.0%	9.2%	10.7%	31.2%	100%
	519	97	113	331	1060

3.3.3 Services offered by the universities

The questionnaire previewed a store of services which the students had to express their type of use. The responses provided were: “Known”, “Used” and in the case of services not present in the faculty, students were asked whether they were necessary or not. For services “used”, students also had to evaluate the service using the following grades: Poor, Adequate, Good or Excellent.

Based on this scheme we have ranked every service, according to the type of student use 4 categories of the use of distance learning³ were forecast.

Through the distribution frequency of every service based on these 4 categories (tab. 3.7) it is possible to note the classifications of every group of students from the comparison between them and the 28 services indicated in the questionnaire. The students’ responses have constructed 4 principal typologies of on-line services.

- institutional
- independent
- indifferent
- interested

³ The Methodological Note for a complete description of the construction of the typology. It should be pointed out that for every service each student can only be part of one category of analysis.

Institutional Use substantially concerns the orientation services offered by the university in keeping with the mission statement and the policies of the campus that distribute the distance learning services. These are predominantly related to information services.

Independent Use includes services such as Chat, which 408 students in the survey said they used. This group made use of the services for their own “alternative/personal” use and for needs beyond didactics. This denotes a certain “enjoyment” and independence in respect to information technology.

Indifferent Use refers to those students who use the services available without “active participation”. Their use of the services is superficial and unmotivated.

Interested Use represents students who are interested in “collaborative” on-line training.

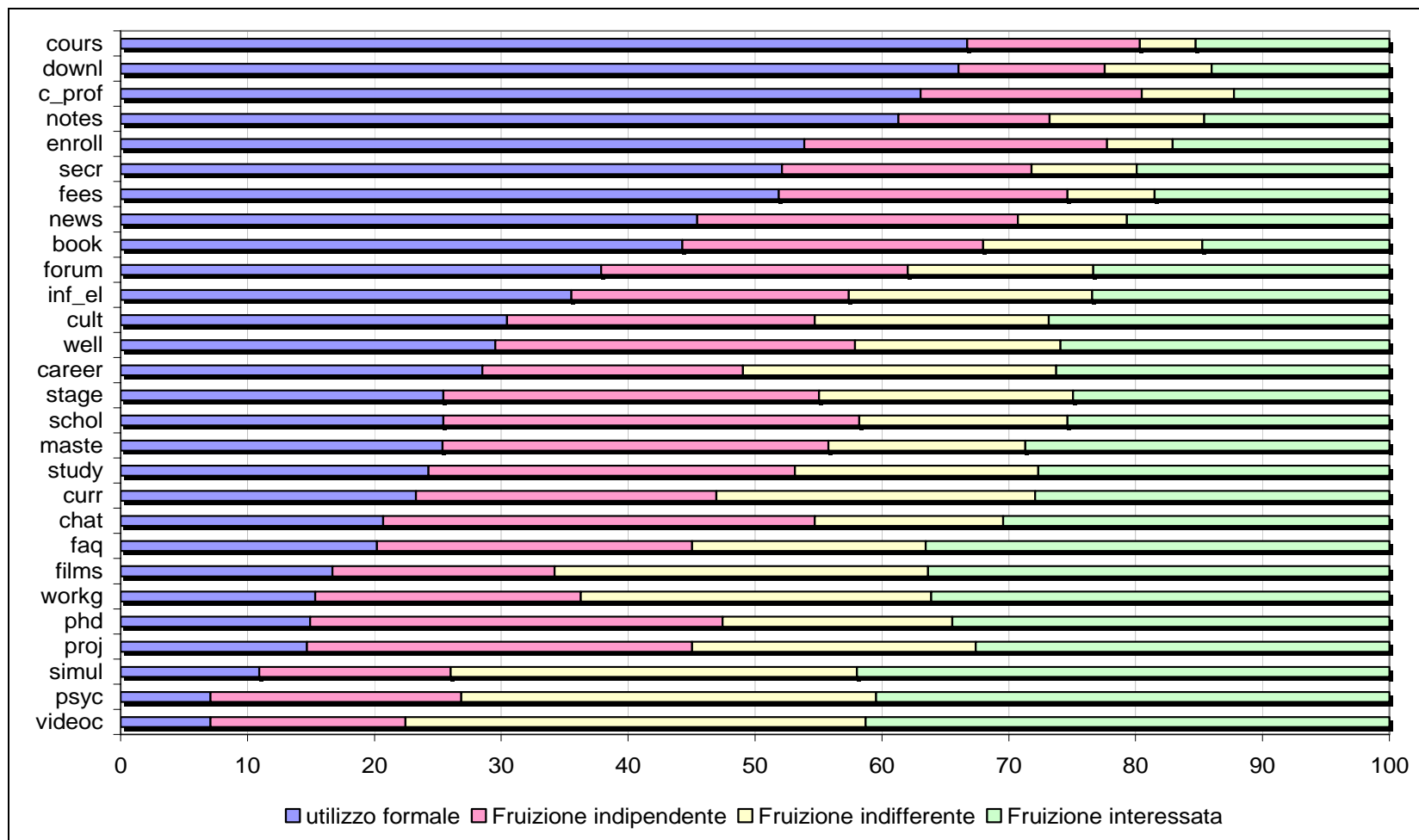
Tab. 0.7 Frequency Distribution of every on-line service based on student use. Total Values and percentages (total= 1199⁴)

	Institutional Use	Independent Use	Indifferent Use	Interested Use
Welcome service	354	340	194	311
	29.52	28.36	16.18	25.94
On line library services	531	284	207	177
	44.29	23.69	17.26	14.76
Chat	248	408	178	365
	20.68	34.03	14.85	30.44
Communication with teachers	756	209	87	147
	63.05	17.43	7.26	12.26
On line information about the development of learning activities	426	262	230	281
	35.53	21.85	19.18	23.44
Downloads of tools/slides/papers/articles	792	138	101	168
	66.06	11.51	8.42	14.01
Tutoring on university curriculum	279	284	301	335
	23.27	23.69	25.10	27.94
Duplicate lecture notes	735	143	146	175
	61.30	11.93	12.18	14.60
Info on Doctorate	179	390	217	413
	14.93	32.53	18.10	34.45
Info on Masters	304	365	186	344
	25.35	30.44	15.51	28.69
Short Films - Video Clips	200	210	353	436
	16.68	17.51	29.44	36.36
On line Forum	454	290	175	280
	37.86	24.19	14.60	23.35
Course management (timetables, lessons...)	800	163	53	183
	66.72	13.59	4.42	15.26
On line work groups	184	251	331	433
	15.35	20.93	27.61	36.11
Info on scholarships	305	393	197	304
	25.44	32.78	16.43	25.35
Info on research projects	176	364	268	391
	14.68	30.36	22.35	32.61
Info on work experience placements	305	355	240	299
	25.44	29.61	20.02	24.94
Link to the cultural offers of the university	365	291	221	322
	30.44	24.27	18.43	26.86
University News	545	303	103	248
	45.45	25.27	8.59	20.68
Career advisory service	342	246	296	315
	28.52	20.52	24.69	26.27

⁴ To guarantee the legibility of the tabel we have omitted the total of lines as they are all equal to 1199

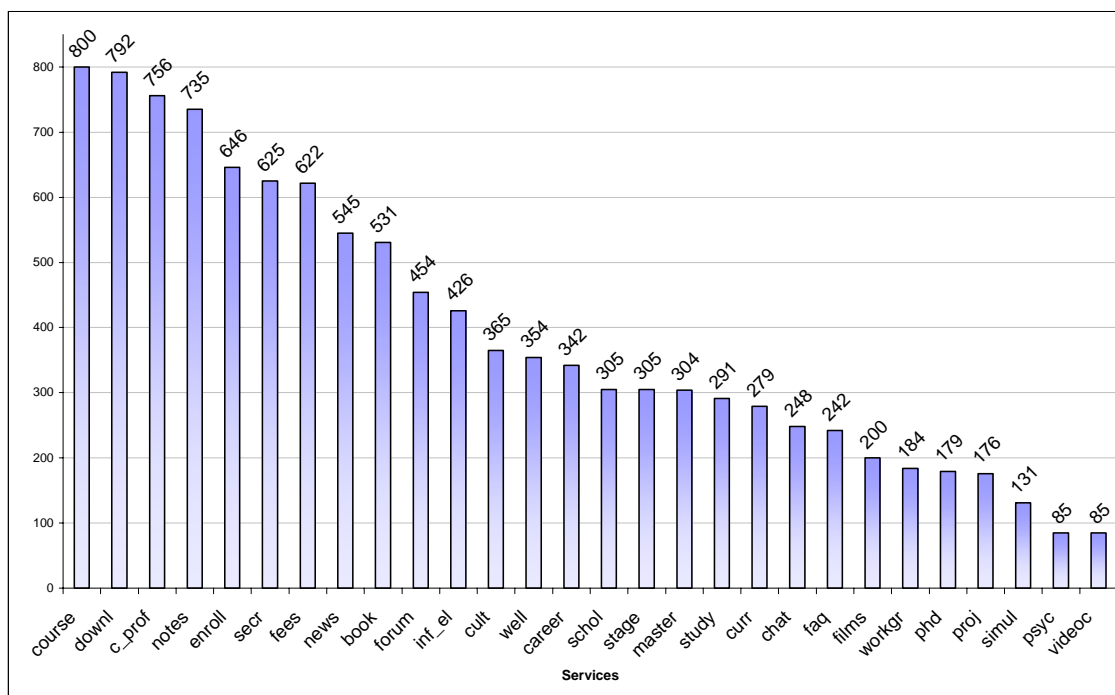
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Study advisory service	291	346	230	332
	24.27	28.86	19.18	27.69
Payment of Fees	622	273	82	222
	51.88	22.77	6.84	18.52
Procedures for Enrollment	646	286	62	205
	53.88	23.85	5.17	17.10
Secretary's office	625	236	99	239
	52.13	19.68	8.26	19.93
Psychological Services	85	237	392	485
	7.09	19.77	32.69	40.45
Virtual sites	131	181	384	503
	10.93	15.10	32.03	41.95
Video Conferences	85	184	435	495
	7.09	15.35	36.28	41.28
FAQ	242	298	221	438
	20.18	24.85	18.43	36.53



Graph 0.4 Comparison of the Distribution Frequency Percentages between the 28 services in the 4 Categories of Use

We can now see in graph 5 the services from the Category “Institutional Use”



Graph 0.5 Ranking of Services Based on the Frequency Observed in the Group Services “Used”.

It emerged from the responses that the most utilised services (more than 60% of the total reference population) were related to:

- Course management (timetables, lessons, etc)
- Downloads of tools/slides/papers/articles
- Communication with teachers
- Duplicate lecture notes.

These services can all be labelled a “virtual notice board”. In fact they can be seen as the traditional didactic services of the university transferred to on-line support. This was the area of use that was best known and most consolidated in all the virtual campuses surveyed. Probably these services are the most used and of the highest standard because they are indispensable to the ordinary life of the university student.

The services related to administrative procedures (Procedures for Enrolment; Secretary's office and Payment of Fees) are used by around 50% of the students. This is of note as it implies that the major part of organisational functions of the campus have been transferred to the net, particularly those related to information or secretarial services.

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We found that information services were regularly used by 20 – 40% of the students for various reasons (cultural events, work experience, information on e-learning, Masters courses, university news, FAQs and so on) as well as for forums and chat.

Less used were multi-media instruments (film, video conferences, virtual sites) and the interactive activities possible through these (e.g. on-line work groups) Psychological services, information on doctorate courses and research projects, even though part of information services, were utilised by not even 15% of the reference population.

Analysing the list of those students who did not use the services, we can distinguish 3 categories – Independent, Interested or Indifferent use.

For Independent and Indifferent groups we were confronted with a “mirror” situation in respect to the actual users, Last on the list of both groups we found the “Virtual Notice Board” services (Course Management – timetables, lessons – Duplicate Lecture Notes, Downloads of tools/slides/papers/articles and so on).

However, we find differences between the groups if we look at the major frequencies in the 2 lists.

Tab. 0.8 Top 7 Services For Independent Use

	Independent Use	% of Total(1199)
1	Chat	34.03
2	Info on scholarships	32.78
3	Info on Doctorate	32.53
4	Info on Masters	30.44
5	Info on research projects	30.36
6	Info on work experience placements	29.61
7	Study advisory service	28.86

Tab. 0.9 Top 7 Services For Interested Use

	Interested Use	% of total (1199)
1	Video Conferences	36.28
2	Psychological Services	32.69
3	Virtual sites	32.03
4	Short Films - Video Clips	29.44
5	On line workgroups	27.61
6	Tutoring on university curriculum	25.10
7	Career advisory service	24.69

Tab. 0.10 Top 7 Services For Indifferent Use

	Indifferent Use	% of total (1199)
1	Virtual sites	41.95
2	Video Conferences	41.28
3	Psychological Services	40.45
4	FAQ	36.53
5	Short Films - Video Clips	36.36
6	On line workgroups	36.11
7	Info on Doctorate	34.45

From table 3.8 we can clearly see that the university services known but not used are related to information on doctorate and masters courses, scholarships, research projects, orientation and work experience placements and first of all Chat. The hypothesis is that these services are not used because the students have found them through other channels and perhaps are seen as having little sense in respect to the original nature of on-line “Chat”. For this reason we have defined this category as “Independent Use”. Probably the web offers more efficient services as regards post graduate study and similar topics.

The services which the students expressed the most interest (table 3.9) were predominantly “multi-media” or “interactive” services, probably due to the fact that these areas are still largely undeveloped in the campuses. This also goes back to the tutoring services which are probably still under-funded and inefficiently run in each campus.

The survey shows however that the service imbalance is the same for both “Interested” and “Indifferent” groups. This could be further confirmation that these services are in line with the distinction between “Interviewed” students who are competent and motivated and those who are

less able and equipped for distance learning. The first need more sophisticated e-learning initiatives while the second are completely indifferent and see the web simply as a “notice board”.

Table 3.11 gives a general evaluation of the services, didactic materials and accessibility. This was requested only from the questionnaires related to experiences indicated by the university – a total of 938.

Tab. 0.11 Comparison of the Evaluation Average of Services, Didactic Material and Accessibility by Country

Country		Evaluation of service offered	Evaluation of didactic materials	Evaluation of accessibility	Evaluation Total
Belgium	Mean	6.01	5.95	6.19	18.15
Tot = 73	Std. Dev.	1.954	1.921	2.209	5.225
Hungary	Mean	6.38	4.71	6.00	17.10
Tot = 21	Std. Dev.	2.202	1.901	2.121	5.347
Italy	Mean	5.99	6.26	6.23	18.49
Tot = 553	Std. Dev.	1.723	1.762	1.899	4.900
Poland	Mean	6.33	6.76	7.16	20.25
Tot = 175	Std. Dev.	1.750	2.017	2.011	5.012
Spain	Mean	6.06	7.12	7.35	20.53
Tot = 108	Std. Dev.	1.771	1.843	1.856	4.663
United Kingdom	Mean	6.13	5.25	5.13	16.50
Tot = 8	Std. Dev.	1.553	0.886	0.991	3.024
Total	Mean	6.08	6.39	6.51	18.98
	Std. Dev.	1.763	1.878	1.996	4.998

However it is very interesting to see the complete evaluation in respect to the single experiences. These are taken only from the experiences that collected a minimum of 30 questionnaires distributed in every country.

Tab. 0.12 Experiences that attracted more than 30 responses, by country (total values).

	Belgium	Italy	Poland	Spain
Experiences	University of Milano-Bicocca	205		
	Teleconference Course in Nursing			
	University of Calabria	176		
	Post Laureate on-line Course in General Pedagogy,			

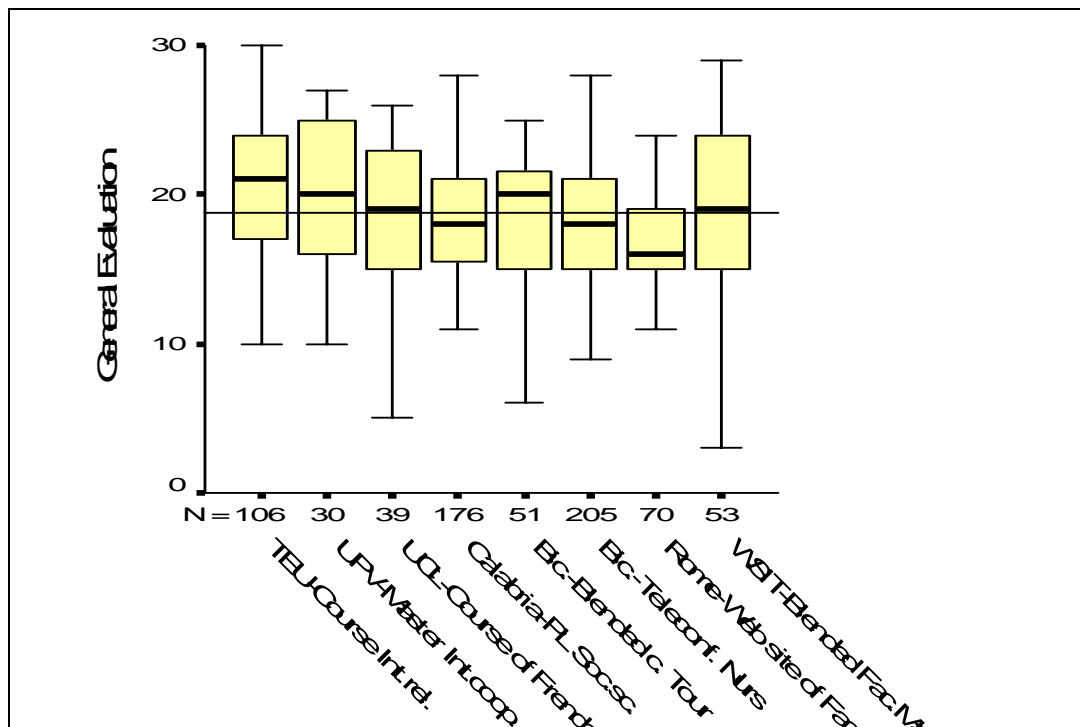
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Didactics, Sociology, Communication			
Tischner European University - Krakow		106	
Course on line in International relations, sociology			
University of Rome 'La Sapienza'	70		
On line services of the web site of the Faculty			
Warsaw School of Information Technology		53	
Blended Faculty of Computer Science, Management and Marketing			
University of Milano-Bicocca	51		
Blended Course in Tourist Sciences and local development			
Université Catholique de Louvain	39		
On-line French Course			
Universidad del País Vasco (UPV-EHU)			30
On-line Masters in International Cooperation, Development Policies			
Total	39	Mean Tot = 18,73	30

The evaluation of these courses is from a more precise view than that by country.

From Graph 3.8 we can distinguish between:

- The experiences which received the highest votes (see the averages above) - TEU; UPV, Bicocca (Blended course in Tourist management);
- The experiences with the lowest - Calabria, Bicocca (Teleconference course in Nursing) and above all Rome which had the lowest score (15.96)



Graph. 0.6 General Evaluation of the average of courses with more than 30 responses.

3.3.4 Technological skills and motivations of the students

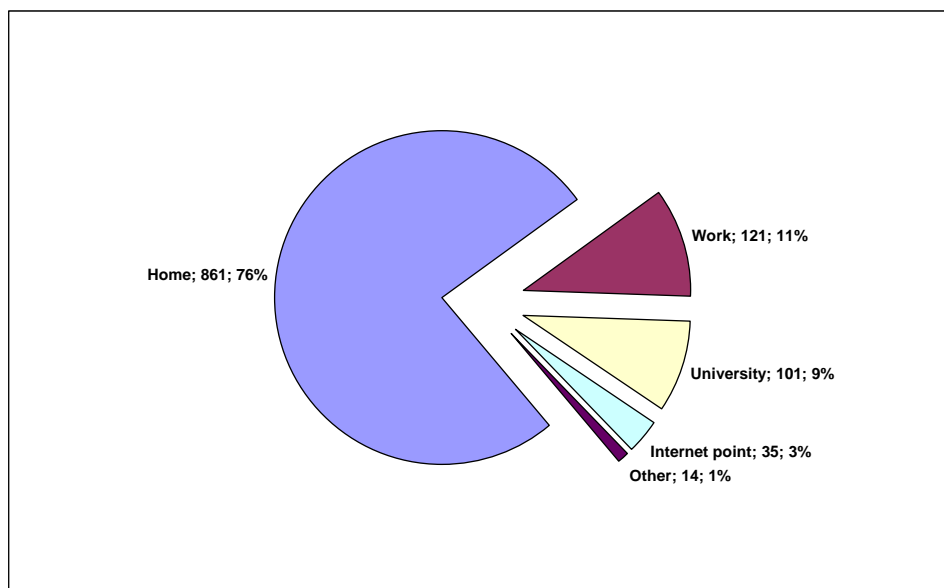
The penultimate area investigated is related to the endowment and technological knowledge of the students as well as their motivation in respect to on line experience and their competence in acquiring it.

The first element to consider is the possession of a computer with internet access, the type of connection and the place, time and reason for connecting to the net (Questions 4 – 10). Connected to this last item we will be taking into consideration the “mailing list” and the use students made of these (Q.15)

Secondly, there is a consideration of the experience itself: Where was information taken from? What went into choosing an on-line course as opposed to a traditional one? The clarity of the didactics, the certification received, the cost, the skills acquired and finally the accessibility of the on-line courses (Q. 11 -21)

A typology based on the last question (33) of the survey related to the students' self evaluation in respect to a distance learning student profile is presented here.

Elements of certain interest emerged in terms of internet connection. 95% of the students who replied to the questionnaire owned a computer with access to the internet. Only 60% though had owned a computer for more than 3 years, 19% within the last 3 years and 10% for less than a year. Internet use has become more a part of daily life and its uses are wide and extensive.



Graph. 0.7 Place of Usual Connection. Percentage Distribution on 1132 valid cases.

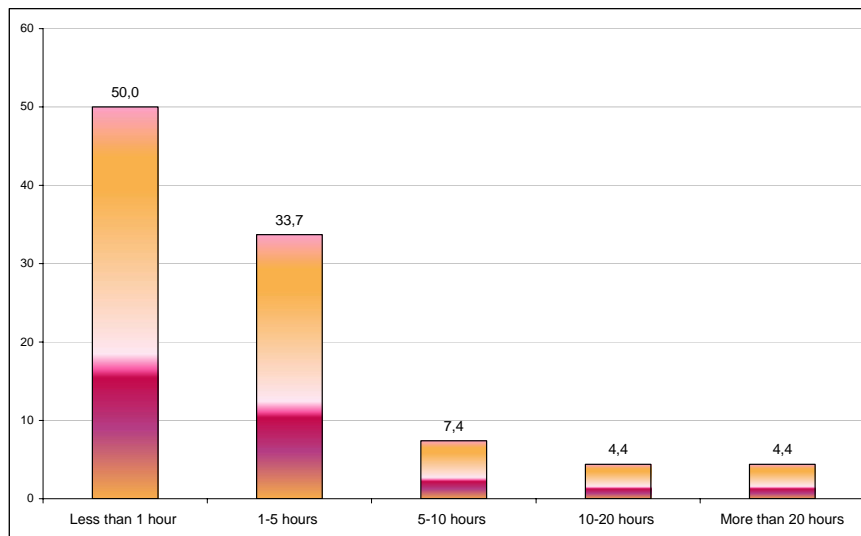
Regarding the place and type of connection used (see graph 3.7 above) the majority (76%) access the internet from home. 45% of these used an ADSL connection. This further reinforces the idea of familiarity with the net beyond institutional training.

11% of students surveyed connected from their place of work while 9% connected from the university. Both groups predominantly used an ADSL connection though in the second group, the number who did not know the type of connection used was double (from 19% to 46%)

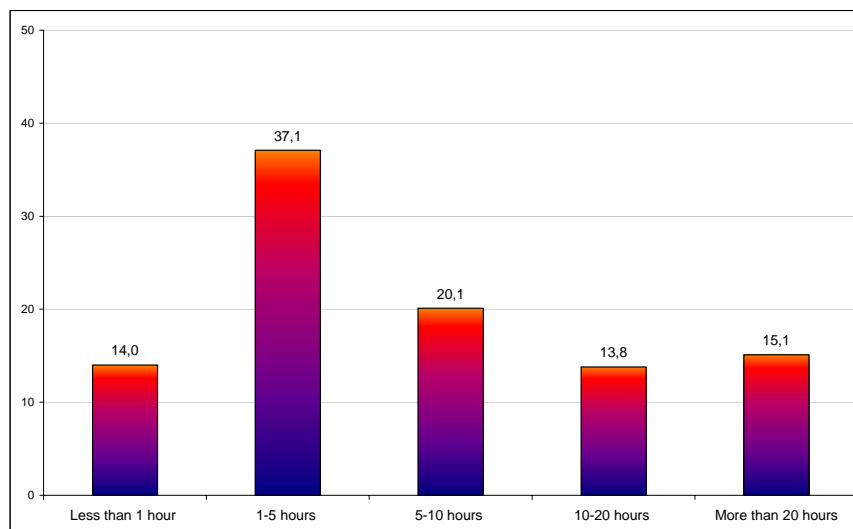
Only 4% surveyed connected via an internet point or from other places. In this case the percentage of those who did not know the time of connection used was close to 45%.

20% of the population declared that they did not know which type of connection was used and we can hypothesise that this is a characteristic of those who do not use the internet at home.

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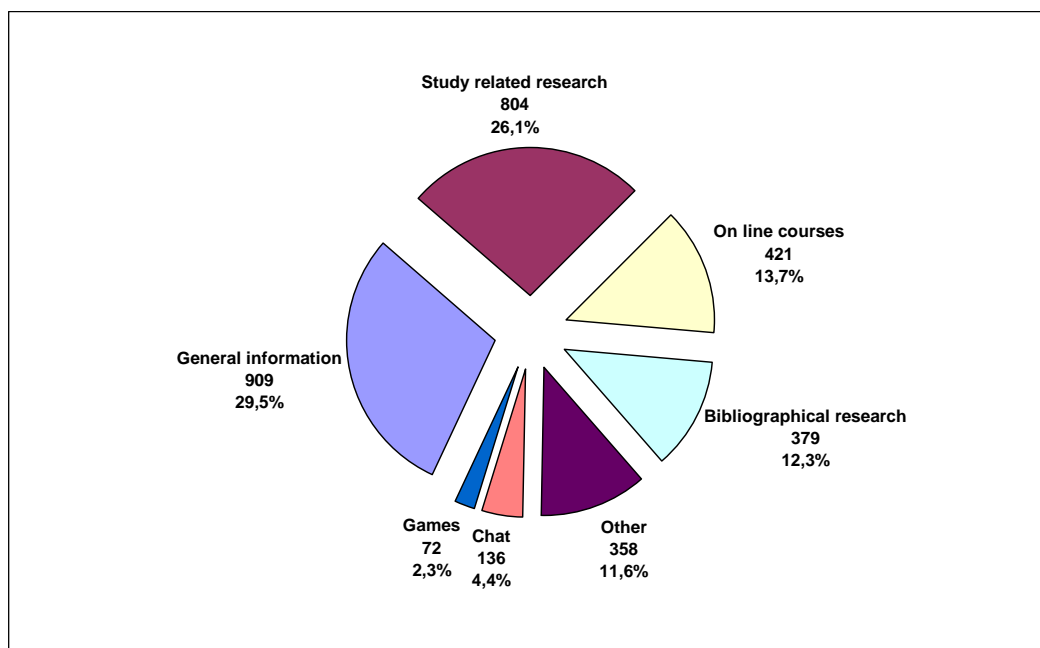
Graph. 0.8 Number of Hours a week connected to the internet through the appropriate faculty. Percentage total of 742 valid cases.



Graph. 0.9 Number of hours a week connected to the internet outside the appropriate faculty. Percentage total of 1081 valid cases.

Graphs 3.8 and 3.9 show the number of hours per week that the students spend connected to the internet either through or outside of their respective faculties.

In 50% of cases internet use within the faculty is limited to less than an hour a week while in 33% of cases there is between 1 and 5 hours of use per week. This reveals the limited number of internet posts available in each faculty, outside the faculties the hours spent navigating are much greater with only 14% of students connected to the net for less than an hour a week – a similar score to 10-20 hours of use and more than 20 hours of use per week.



Graph. 0.10 Reasons for Connecting to the Internet. Percentage Distribution taken from multiple responses (3079) in 1158 valid cases.

The students were further asked to express their 3 principal reasons for connecting to the internet. The analysis of their multiple responses is recorded in Graph 3.10 (above)

The principal reasons for navigating were “general information” and “study related research”. These results confirm the evidence in the paragraph on services that the principal interest of the students is for institutional use. To this we can add the 12.3% who use the web for bibliographical research. From this data we can speak of a consolidated use of the web for learning in a social context.

Only 13.7% saw on-line courses as one of the 3 reasons for connecting to the net. Games (2.3%) and Chat (4.4%) were of minor importance compared to the other aims. 11.6% of respondents indicated “other” reasons for connecting which were not specified.

At this point it is interesting to investigate the use made of the mailing list. The questionnaire included a question with 6 modes of response of which the students could choose as many as they wanted. The following chart shows the results obtained from the multiple responses.

Tab. 0.13 Use of the mailing list: Distribution Percentage From Multiple Responses (1036) of 638 valid cases.

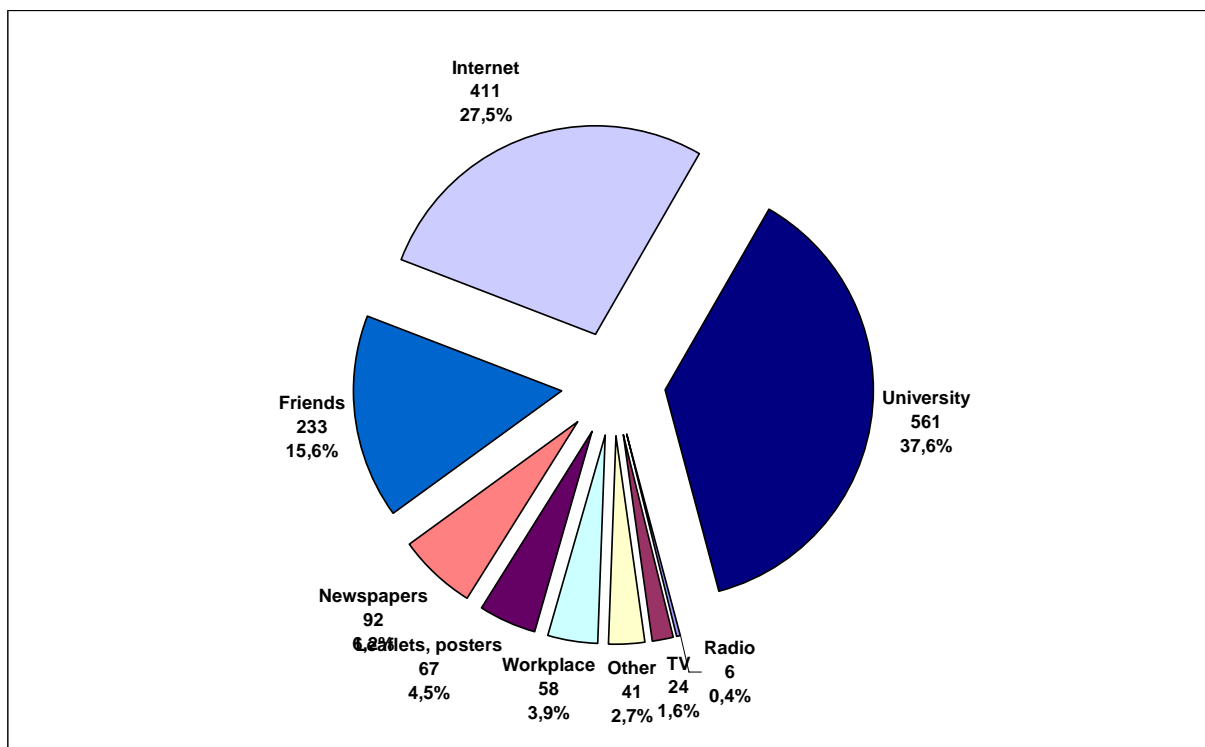
Use of the mailing list	Count	% of Responses	% of Cases
Exchange didactic information with my university	420	40.5	65.8
Exchange information on university services with my university	220	21.2	34.5
Meet other colleagues	122	11.8	19.1
Exchange news and information with students from other universities	98	9.5	15.4
Increase my circle of friends and acquaintances in and out of my universities	89	8.6	13.9
Exchange/promote autonomous/cultural initiatives within my university	87	8.4	13.6
Total responses	1036	100	162.4

The first point to make is that there were relatively few responses (an average of 1.6 for each of the 638 students who replied) which suggests that either the mailing list has a different list to that predicted by the question or is of little use at all.

The majority of responses concern information on the University. In particular 40% of these focussed on the exchange of didactic information while 21.2% concerned information on the services.

However few were drawn to the possibility of meeting colleagues, student exchanges with other universities, enlarging their circle of friends or the promotion of initiatives within the university. These last options were selected only by around 15% of those who responded to this question (638) – not even 10% of the total number of students (1199).

Graph 10 confirms where the students primarily got their information on on-line courses. Predominantly this was from the universities themselves (37.6%) followed by the internet (27.6%) and word of mouth (15.8%). Less effective were forms of advertising such as posters, leaflets, TV and Radio (less than 5%). The channels of access to on line course information replicate those of the consolidated channels (university and friends which total more than 52%) and emerging channels such as the internet.



Graph. 0.11 First source of information about on line courses: Percentage Distribution of multiple responses (1493) of 972 valid cases.

Table 3.14 records the multiple responses (maximum 2) of the reasons for choosing on-line instruction rather than traditional methods, the main reason being “to save time” (24.6%).

It seems that the courses on-line were chosen for their “novelty” or economic reasons. In fact, reasons related to the possible benefits of the courses, such as “Better Preparation” (13%), “Up to Date Courses” (12%), “Better Results” (5.8%) or to avoid course restrictions were of comparatively minor importance.

It is also interesting to note that 2 predicted responses, relating to work needs or work/life balance, were not chosen by anyone.

Table. 0.14 Reasons for On-line Instruction as opposed to Traditional Methods. Percentage Distribution of multiple Responses (1210) from 855 Valid Cases.

Reason for on line instruction	total	%of Responses	%of Cases
By chance	476	39.3	55.7
I wanted something to save time	298	24.6	34.9
The on line courses prepare you well	159	13.1	18.6
I wanted something up to date	150	12.4	17.5
On line courses get better results	70	5.8	8.2
To bypass course number restrictions	57	4.7	6.7
Total responses	1210	100	141.5

Looking now at certification, only 26% of respondents held a certificate (ECDL, Europass or others). The internet has a social use but the practical qualifications for this type of knowledge are only slowly emerging.

Turning to the cost of on-line courses: 66% students felt that costs were too high, however the rest of the population did not respond to this question, which perhaps means that they have not yet used a course that they have had to pay for.

Tab. 0.15 Expectations of Distance Learning. Percentage Distribution of multiple Responses (1482) from 888 Valid Cases.

Distance learning allows you:	total	% of Responses	% of Cases
To enrich your learning experience	442	29.8	49.8
To access and use knowledge in circulation	440	29.7	49.5
To learn specific skills	283	19.1	31.9
To take part in work groups and/or networks	217	14.6	24.4
To meet new people	100	6.7	11.3
Total responses	1482	100	166,9

Table 3.15 deals with the perceived possibilities of Distance learning. Students felt that such training enriched their learning experience (29.8%) or provided greater access to knowledge in circulation. Of relative importance is the value given to learning specific skills (19.1%) and participating in a work group or network (14.6%). Considering that the students could respond to all the items, little value is attributed to distance learning as a means of meeting new people (only 6.7%) this is because the students already belong to a highly socialised context and use the internet to maintain contacts already established.

Tab. 0.16 Evaluation of Accessibility to Distance Learning. Absolute/Percentage/Cumulative Frequency.

Levels of access to the distance learning	Frequency	%age	Valid %age	Cumulative %age
Easily Accessible	151	12.6	21.0	21.0
Adequately Accessible	405	33.8	56.3	77.3
Accessible after some difficulty	104	8.7	14.5	91.8
Inaccessible	11	0.9	1.5	93.3
I don't know	48	4.0	6.7	100
Total	719	60.0	100	
Missing: NA	480	40.0		
Total	1199	100		

From table 3.16 we can see that the majority of the students were happy with the accessibility of distance learning, while only a small percentage (16% in total) expressed any dissatisfaction.

In the following table (3.17) we present all the possible combinations of the 3 responses to the last question of the questionnaire (q.33). This aimed to allow the students to express their view of their own student profile. Three responses were provided: Firstly to express their competency (or lack

of) as regards distance learning, secondly their need to improve their distance learning skills and thirdly, whether they were interested in developing their skills in this area.

Tab. 0.17 Cross tabulation of the self evaluation of own profile as student of distance learning

		I need to improve my distance learning skills			
		No	Yes	Total	
Not competent at distance learning	I am not interested in developing my distance learning skills	No	89	646	735
		Yes	190	3	193
	<i>Total</i>	279	649	928	
Competent at distance learning	I am not interested in developing my distance learning skills	No	261	6	267
		Yes	—	4	4
	<i>Total</i>	261	10	271	

Four principal typologies emerged from cross-referencing these 3 possible responses.

Firstly, students who judged themselves as competent were in the minority. Positive responses numbered only 271 - around 20% of the total. This group can be defined as **Super-competent** including those who are not only already competent but are still interested in developing distance learning skills even if they don't have the need.

However, those respondents who considered themselves "incompetent" fall into 3 typologies.

The first group is those **In Need**, who recognise the limitation of their current skills and express both an interest and a need to improve them. This group, comprising 646 students, is more consistent and is probably the one which the originators of on-line courses will turn their attention to.

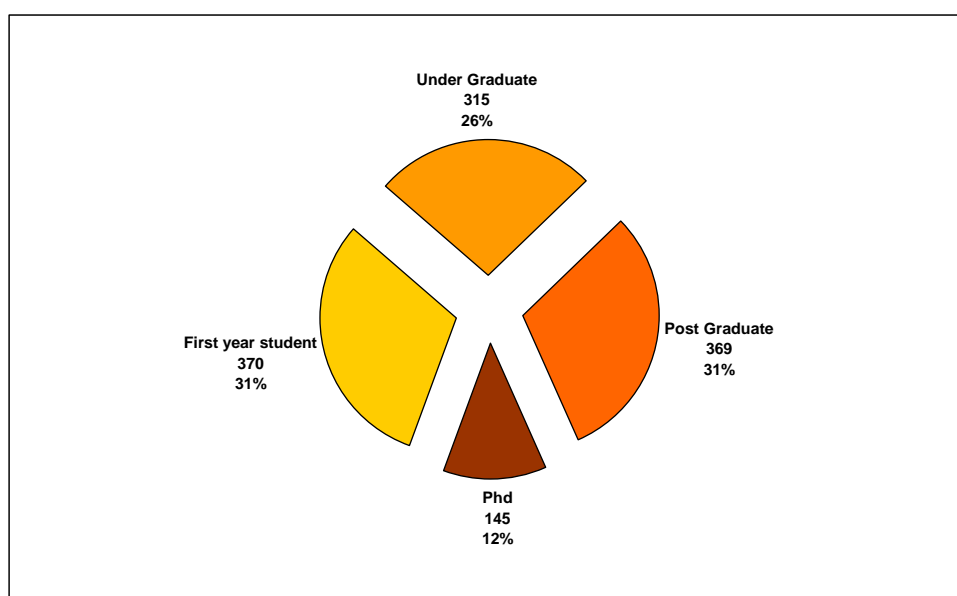
The third group of 89 students expressed an interest in distance learning but at the same time saw no need to improve their skills in this area. This group can be classified as **Superficial Users**.

The final group (comprising 190 students, around 16% of the total) declared that they had no skills, no interest in and no need for developing distance learning skills. We can label this group as Disinterested.

3.3.5 The Students: Different Needs of First Year, Under graduate, Post graduate and Doctorate Students

Here we keep track of the different needs of the natural groups based on university status – first year and other under graduate, post graduate and doctorate students.

In the first graph we can see the number of each of the 4 groups. Almost 60% of the student population who replied to the questionnaire had not yet graduated (31% first year and 26% under graduate students). A further 31% was made up of post graduate students while a much smaller group (12%) was doctorate students.



Graph 0.12 Distribution of the Student Population (1199) according to University Status.

It is of added interest to see how these 4 groups are distributed in each of the 6 countries of the study (see table 3.8) especially as the training offered in each country is so different (see chapter 1).

In Belgium (43% under graduate) and Poland (54.5% undergraduate), first year or undergraduate students dominated. In both countries, few responses came from graduates (the Polish survey had only 9 graduates).

In Spain and Hungary, however, the majority of responses came from graduates (54.3% and 68.8% respectively). The 2 countries differed though, in the distribution of the remainder of the population. In Spain the second highest response came from first years (21.6%) but there were very few responses from the other 2 groups (little more than 10% each). Hungary had a 27.5%

response from doctorate students but just 2 first year responses and no under graduate responses.

In Italy around 90% of the survey divided evenly over the first 3 categories (with a slight prevalence of post graduates) and a smaller score for PhD. students (11.3%). With only 12 respondents, the results from the United Kingdom had little relevance.

Tab. 0.18 Distribution of the Population by Country and University Status. Total Values and Percentages.

	University status				Total
	First year student	Under Graduate	Post Graduate	PhD	
Belgium	32 33.0%	43 44.3%	9 9.3%	13 13.4%	97 100%
Hungary	2 3.9%	—	35 68.6%	14 27.5%	51 100%
Italy	180 26.1%	183 26.5%	249 36.1%	78 11.3%	690 100%
Poland	127 54.5%	71 30.5%	9 3.9%	26 11.2%	233 100%
Spain	25 21.6%	15 12.9%	63 54.3%	13 11.2%	116 100%
United Kingdom	4 33.3%	3 25.0%	4 33.3%	1 8.3%	12 100%
Total	370 30.9%	315 26.3%	369 30.8%	145 12.1%	1199 100%

We can now see the uses that these 4 groups made of the 28 services presented in paragraph 3.3.3.

The following 4 tables deal with the type of use⁵ - Institutional (3.19), Independent (3.20), interested (3.21) and Indifferent (3.22). Every table lists the first seven frequency distribution scores of the services considered (28) within each of the 4 groups (First year student; Under-graduate; Post-graduate; PhD).

Tab. 0.19 The Top 7 Services used by Students of the “Institutional Use” Group.

Pos itio n	Institutional Use			
	First year student	Under-graduate	Post-graduate	Phd
1	Downloads of tools/slides/papers/articles	Communication with teachers	Course management (timetables, lessons...)	Downloads of tools/slides/papers/articles
2	Course management (timetables, lessons...)	Downloads of tools/slides/papers/articles	Duplicate lecture notes	Communication with teachers

⁵ For a full explanation of these typologies see paragraph 3.3.3.

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		les	
3	Communication with teachers	Course management (timetables, lessons...)	Procedures for Enrollment
4	Duplicate lecture notes	Duplicate lecture notes	Communication with teachers
5	Secretary's office	Payment of Fees	Downloads of tools/slides/papers/articles
6	Payment of Fees	Secretary's office	Info on Masters
7	Procedures for Enrollment	Procedures for Enrollment	On line library services

The services which all 4 groups put to an “institutional” use are related to:

- The collection of didactic material (“Downloads of tools/slides/papers/articles” and “Duplicate lecture notes”);
- The development of academic courses (“Course management (timetables, lessons...)” but also “Communication with teachers”);
- Procedures for the payment of fees.

This is in line with the fact that these services are used formally by nearly 70% of the total population (1199 students). Post graduate and doctorate groups however favoured the on-line library service. This data only explains that post graduates are the only ones who have a formal use for information services for masters courses available.

Tab. 0.20 The Top 7 Services Used by Students of the “Independent Use” Group.

Independent Use				
Position	First year student	Under-graduate	Post-graduate	Phd
1	Info on scholarships	Info on scholarships	Info on Masters	Chat
2	Chat	Chat	Info on Doctorate	Info on scholarships
3	Study advisory service	Study advisory service	Info on scholarships	Info on Doctorate
4	Info on research projects	Info on research projects	Chat	Welcome service
5	Info on work experience placements	Info on work experience placements	Info on work experience placements	Info on work experience placements

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6	Info on Masters	Info on Masters	Info on research projects	Info on research projects
7	Welcome service	Welcome service	Study advisory service	Payment of Fees

Even if the 4 groups come back to the same services of “Independent Use” we can detect some peculiarities in each group. To summarise, Post graduates tend to look “elsewhere” for information on masters and doctorate courses and, as opposed to the others, orientation services do not come up and welcome services are not used. Finally, we need to show that there is no difference in the university structure of the services within the first year students and under-graduate groups.

Tab. 0.21 The Top 7 Services Used by Students of the “Interested Use” Group.

Interested Use				
Pos itio n	First year student	Under-graduate	Post-graduate	Phd
1	Video Conferences	Psychological Services	Video Conferences	Video Conferences
2	Psychological Services	Video Conferences	Short Films - Video Clips	Psychological Services
3	Virtual sites	Virtual sites	Virtual sites	Virtual sites
4	Short Films - Video Clips	Career advisory service	Psychological Services	Info on work experience placements
5	On line workgroups	On line workgroups	On line workgroups	Info on research projects
6	Info on research projects	Tutoring on university curriculum	Career advisory service	On line workgroups
7	Tutoring on university curriculum	Short Films - Video Clips	Tutoring on university curriculum	Short Films - Video Clips

Tab. 0.22 The Top 7 services Used by Students of the “Indifferent Use” Group

Indifferent Use				
Pos itio n	First year student	Under-graduate	Post-graduate	Phd
1	Video Conferences	Virtual sites	Psychological Services	Virtual sites
2	Psychological Services	Video Conferences	Short Films - Video Clips	Video Conferences
3	Virtual sites	FAQ	Virtual sites	Short Films - Video Clips
4	Info on Doctorate	Psychological Services	Video Conferences	Psychological Services
5	Info on Masters	Info on Doctorate	On line work groups	FAQ
6	On line work groups	Short Films - Video Clips	FAQ	On line workgroups
7	Info on research projects	On line work groups	Chat	Tutoring on university curriculum

Looking at the services for “Interested Users” all groups, apart from doctorate students, expressed a need for the introduction of tutoring services on the university curriculum. Under and Post graduate groups also requested a careers advisory service while the Doctorate group viewed information on work placement and research projects as more important.

Interestingly, first year students also wanted information on research projects. This request also appears in the same group for Indifferent Users but perhaps in this case the socialisation process has only just started and we are really talking about a lack of awareness.

If we continue to look at the services of the Indifferent Users we can see that first year students in particular show little interest in Masters and Doctorate information services (under-graduates are similarly disinterested in doctorate information). Presumably this is because it is too early to consider in their training. The different groups did not express much interest in the FAQ’s and finally in the post-graduate group we can see “Chat” amongst the top 7 services.

We can conclude that the need for more complex on-line services grow with the development of the student’s university and post university career.

