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## **DIFFUSION AND USES OF INTERNET IN CATALONIA AND IN SPAIN**

A Commented Summary of Available Evidence, as of 2001.

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**WORKING PAPER**

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## KEYWORDS

Internet, Catalonia, Spain, statistics, diffusion, Internet uses, socio-demographic characteristics.

## ABSTRACT

This working paper summarizes and analyzes the statistics provided by available studies on the spread and uses of Internet in Catalonia, in Spain, and in selected Spanish regions circa 2001. A data base was established by collecting and evaluating studies and surveys from various sources. Their methodology is described in the study. Relevant variables are identified, and tables are built for each variable bringing together data from various sources. An analytical commentary highlights the main findings concerning the relationships between Internet and society in Catalonia, in Spain, and in the Spanish Regions. A number of hypotheses on these relationship are suggested.

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The data for the Spanish Regions are very similar to those reflected in the Spanish summary, but every Region has certain peculiarities.

The percentage of households connected to the Internet vary for every Region, being the differences among them quite significant. While in Navarra the studies reported 14.5% of households connected to the Internet for 2000, in Euskadi, the reported percentage is 23%<sup>142</sup> for 2001. This difference is also reflected in the number of Internet users: in Navarra 18.5% of the population uses Internet, while in Euskadi the percentage of Internet users is 20.7%. The Region with the lowest percentage of Internet users is Castilla La Mancha (11,2%) (See Fig 9). The evolution of Internet users for the period 1997-2001 shows that there has been a high growth rate of Internet users<sup>143</sup>. However, the current percentage of Internet users in every region is quite different. We could think the causes for these differences are the amount of population for each region or the technical development of it.

Fig 9 - % Persons connected to the Internet (% over total population)

Region	EGM (2001)	AIMC (2001)*
	% Persons connected to the Internet	% Persons connected to the Internet
Andalucía	16.6%	11.8%
Aragón	13.5%	2.8%
Asturias	19.1%	3.3%
Baleares	20.3%	1.8%
Canarias	17.5%	3.8%
Cantabria	15.6%	1.2%
Castilla y León	14.3%	5.6%
Castilla La Mancha	11.2%	2.8%
Catalunya	24.8%	21.1%
Comunidad Valenciana	20.1%	9.1%
Extremadura	13.7%	1.8%
Galicia	12%	4.7%
Madrid	22.8%	19.8%
Murcia	14.8%	2%
Navarra	18.5%	1.4%
País Vasco (Euskadi)	20.7%	5.9%
La Rioja	22.9%	0.7%
Ceuta y Melilla		0.2%
Doesn't know or doesn't answer		0.4%
Total	-	100%

\* Percent distribution of the surveyed people. For this reason total is 100%

Taking a snapshot of one particular city, the study reporting data about a town in Murcia, Cieza, referring to the percentage of Internet users according to household dimension are very similar to Spain: the highest percentage of Internet users belongs to households where four people live (39%), while the lowest percentage refers to households with eight people (2%)<sup>144</sup>. In addition, the household income clearly defines the percentage of Internet users: in La Rioja households with 210,000- 420,000 show the highest percentage of users (25.5%)<sup>145</sup>, which represent the medium class. The age of Internet users also follows the trend in Spain: 48.8% of users in La Rioja are between 18 and 31 years old, and in Navarra 28% of users are between 15 and 24 years old<sup>146</sup>.

<sup>142</sup> See V.1c and V.1a

<sup>143</sup> See V.5

<sup>144</sup> See V.124

<sup>145</sup> See V.126

<sup>146</sup> See V.134a and V.134b

The gender distribution in the regions is also similar to Spain: in La Rioja 66.5% of Internet users are men, and 33.5% are women<sup>147</sup>, while in Navarra the percentage for men is 61% and 39% for women<sup>148</sup>. Regarding the educational level, the highest percentage of Internet users belongs to Internet users with an University degree: in Euskadi, 43.4% of the population<sup>149</sup> and La Rioja, 48.1% of Internet users<sup>150</sup>. The exceptions are Navarra and Cieza (Murcia), where the percentage of Internet users with secondary education is the highest (41% of users in Navarra and 37% of the users in Cieza)<sup>151</sup>.

Once the socio-demographic features of Internet users have been stated, we have to study the typology of uses of the Internet. There is not much information about the Regions in this field in the several surveys. We only have data from Navarra and they are surprising because they do not show the general trend of the uses of the Internet in Spain. While in Spain the most important activity of Internet users is the search for information, in Navarra it is chat (44.8% of Internet users who connect from home do it), followed by the search for information (40.8% of Internet users who connect from home). We would like to have more information about what is the main activity of the Internet of users who connect from other places to check the importance of the Internet as an informational tool. It is also important the leisure/entertainment typology : 32.1% of Internet users in Navarra download music, which is similar to the situation in Spain (39.4% of Internet users)<sup>152</sup>.

Another relevant data is the percentage of mobile phone users. While in Navarra 43.6% of the population use a mobile phone, in Catalonia 77.3% of the population use it<sup>153</sup>. It could be hypothesized that there is a positive correlation between the percentage of mobile users and the percentage of Internet users. However we need more information about the rest of the regions to check the hypothesis.

Place of connection and frequency of connection of Internet users have also to be taken into account. Like in Spain, the place where most Internet users connect is their household (21% of population in Euskadi and 55.9% of Internet users in Catalonia), followed by the place of work (15% of population in Euskadi and 36.6% in Catalonia). However, Navarra shows the opposite trend: the percentage of population who connect to the Internet from work is higher than the percentage of population who connect from household (9.8% the former and 14.9% the latter)<sup>154</sup>. Regarding the frequency of connection, Internet users prefer to connect weekly both in Euskadi and in Murcia<sup>155</sup>. In addition, the favourite days of the week for users to connect in Navarra are Saturday (64.2% of users) and Sunday (62.5%)<sup>156</sup>. We could think that there is an increase of Internet use on the weekends due to the higher amount of free time of the user. However, it has to be pointed that the increase of Internet use in weekends does not necessarily mean that the Internet is mostly used as a leisure tool.

The information about use of on-line education by Internet users is very scarce. We only know the number of IT PhD and IT Degrees by Region. Catalonia offers the highest number of courses (133), while Extremadura, Cantabria and Navarra offer the lowest number of courses (2 courses every Region). We don't know the percentage of these IT PhD and IT Degrees which are offered on line<sup>157</sup>.

Let's consider now the Public Administration sector. The percentage of Public Administration regional institutions with an accessible website report that the lowest percentage belongs to Cantabria (66.7%) and the highest belongs to Navarra (100%). However, we need to go further, because not all Regions have the same number of institutions, so the percentages may be a little tricky: it's easier for a Region to have a higher percentage if the number of institutions is lower (See Fig.10 to have a clearer idea of the actual situation)

Fig 10 - % of Public Administration institutions with an accessible website by Region

<sup>147</sup> See V.130b

<sup>148</sup> See V.130a

<sup>149</sup> See V.139a

<sup>150</sup> See V.139c

<sup>151</sup> See V.139b and V.139d

<sup>152</sup> See V.26

<sup>153</sup> See V.14a and V.14b

<sup>154</sup> See V.19a, V.19b and V.19c

<sup>155</sup> See V.16a and V.16b

<sup>156</sup> See V.24

<sup>157</sup> See V.116

eEspaña 2001			
Region	Total Administration institutions	Public Administration institutions with an accessible website	% of Public Administration institutions with an accessible website (% over the total)
Andalucía	79	58	73.4%
Aragón	7	5	71.4%
Asturias	10	7	70%
Baleares	13	12	92.3%
Canarias	25	17	68%
Cantabria	6	4	66.7%
Castilla-La Mancha	19	15	78.9%
Castilla y León	24	18	75%
Catalunya	86	77	89.5%
Ceuta	2	2	100%
Comunidad Valenciana	49	41	83.7%
Extremadura	11	9	81.8%
Galicia	23	18	78.3%
La Rioja	3	2	66.7%
Madrid	30	22	73.3%
Melilla	2	1	50%
Murcia	15	13	86.7%
Navarra	6	6	100%
País Vasco (Euskadi)	22	18	81.8%

The immediate question which arises is : what kind of e-information is available for the citizen on the Public Administration institutions websites? Of course, every institution has its own information, but in general 67% of the websites display information about public competition, followed by 63% of websites containing information about subventions. On the contrary, 34% of the websites display information about proceedings and only 32% about taxes (See Fig 11). What is curious is that if the second highest percentage of IT use inside Public Administration institutions is set in the tax management area (90% of IT use)<sup>158</sup>, how can it be possible that the tax area is the one in which the citizen has the least possibilities of using IT? . It could be hypothesized that Public Administrations institutions use IT as an informational tool rather than an instrumental tool, maybe because the use of IT is not so much spread over the population or that the possibilities of reducing bureaucracy with IT are still unknown.

Fig 11 - % of e-information available for the citizen in the Public Regional Administrations

eEspaña 2001	
Competition for a job	67%
Subsidies	63%
Contest	62%
General information	60%
Application forms	57%
Publications	45%
Claims	38%
Proceedings	34%
Taxes	32%

As far as business firms are concerned, by 2000, the highest percentages of firms with Internet access was set in Madrid (68%), and Catalonia (64%), and the lowest in Extremadura (40%)<sup>159</sup>. If we look at the percentage of Internet users by region, we see that there is a positive correlation between the percentage of Internet users and the percentage of firms with Internet access by region. It could be hypothesized that the higher use in firms the higher use in particular users and viceversa. Regarding the kind of use of Internet in firms, it is very similar to the use of particulars: the main purpose of Internet is the search for information

<sup>158</sup> See VT.98

<sup>159</sup> See V.53a

(74.2% of firms with Internet access in Navarra) and the use of e-mail (78% of firms with Internet access in Cieza and 91% of firms with access in Baleares). E-bank is also an important firm's use in Navarra, much more important than the particular's use (53.1% of firms use e-bank versus 24.5% of e-bank particular users in Navarra). However, the lowest percentage of Internet use of firms refer to e-commerce: 6.9% of firms in Navarra with Internet access purchase goods and services by the Internet, and only 3.9% of firms sale products<sup>160</sup>. However, it should be interesting to have data concerning the incomes of e-commerce to hypothesize properly about the situation of e-commerce in every region. The data for the Regions show that the percentage of firms with e-commerce is still not very high, although the data for a region from different studies are significantly different (see Fig 12). The possible causes for the low percentage of firms with e-commerce, as in the Spain case, could be the few customers (43% of firms with e-commerce in Baleares report this statement as a medium problem for e-commerce)<sup>161</sup> and the lack of security of Internet (21% of firms without e-commerce report this statement as a big barrier for e-commerce)<sup>162</sup>. However, it is very difficult to elaborate statements with so few data for Regions, but it could be said that e-commerce is still less spread than particular use, so firms should trust more in IT or there could be a digital divide between particular users and business firms regarding IT use.

Fig 12 - % of business firms with e-commerce by Regions

Region	eEspaña 2001		Tecnologías SSI (2000)
	% of business firms with e-commerce over firms with Internet presence	% of business firms with e-commerce over the total of business firms	% of business firms with e-commerce over the total of business firms
Andalucía	33.9%	10.5%	8%
Aragón	22.6%	9.6%	12%
Asturias	36.3%	11.9%	13%
Baleares	42%	16.5%	7%
Canarias	40.9%	8.2%	10%
Cantabria	29.7%	8.6%	16%
Castilla-La Mancha	28.4%	5.1%	15%
Castilla y León	8.5%	2.2%	10%
Catalunya	33%	10.9%	14%
Comunidad Valenciana	28.8%	9.6%	15%
Extremadura	41.4%	7.8%	5%
Galicia	25.4%	9.3%	14%
Madrid	46%	20.4%	23%
Murcia	51%	13.7%	13%
Navarra	18.6%	4.9%	4%
País Vasco (Euskadi)	20.5%	4.9%	4%
La Rioja	25.5%	5.6%	25%

In sum, the situation in Spanish Regions is quite similar to the situation in Spain at large, specially concerning the sociological features of particular users or the situation of e-commerce. However, the regions show significant differences in aspects such as the penetration rate. It has to be taken into account that every region has certain cultural, economic, and geographical peculiarities which make them different one from another, and these may also affect the use of the Internet. Indeed, we observe a difference in the rate of penetration between regions, and this difference is closely correlated with the level of economic development, and with the educational status of the population. In the Baleares the rate of penetration of Internet is lower than would correspond to their status as the wealthiest region of Spain. However, this is because of the fact that average income in the Baleares is inflated by the high concentration of income in the top 20% of the population of the islands. Overall, Catalonia and Madrid continue to signal their economic and educational preeminence, while the less developed regions of Spain (the Castillas, Galicia, Extremadura) lag in the diffusion of the Internet as they lag in most other indicators of development. Since the learning curve in the use of the Internet is dependent on the time of its adoption, it seems necessary a deliberate regional policy that would have the diffusion of Internet as an important feature of the strategy to reduce regional inequality in the information economy. An interesting example of this kind of regionally-based initiatives is the

<sup>160</sup> See V.56a, V.56b and V.56c

<sup>161</sup> See V.72

<sup>162</sup> See V.73

policy of the Comunidad de Murcia concerning the Ciez@net program for the city of Cieza. Otherwise there could be a danger of a growing digital divide between the Spanish Regions.

#### 4.1. Tables on Spanish Regions (\*)

(Organized by Variables)

(\*) We have organized the tables according to the variables we have studied on the basis of available data. We have numbered the variables, given one number to each variable, as per the list of variables shown in the appendice of this working paper.

Thus, tables do not have numbers, variables do. Each number is unique for each variable. All data concerning the variable from various sources are included in the table characterizing each variable. However, since our study concerns three different contexts: Catalonia, Spain, and Spanish Regions, tables are presented in three different blocks at the end of each section of the paper. For each context, we continue to identify the variables by their unique number, but naturally the data for the same variable are different in each one of the three contexts, and so are the tables that share the same number of the end of the three sections.

In each table we have indicated the specific source for each one of the statistics displayed in the table. Statistics may differ and usually do. This is exactly the purpose of our study: to show the diversity of estimates for the same variable, referring the reader to the methodological note in appendice for her/him to evaluate the reliability of each one of the sources presented.



#### 4.1.1. Internet use variables (Spanish Regions)

*Access to Internet and use by households and persons in Spanish Regions*

1. a) % Households in País Vasco connected to the Internet

OSIE (2001)	
% Households in País Vasco connected to the Internet	23%

1. b) % Households in La Rioja connected to the Internet

Fundación Riojana (2001)	
% Households in La Rioja connected to the Internet	19.1%

1. c) % Households in Navarra connected to the Internet

Instit. Estad. Navarra (2000)	
% Households in Navarra connected to the Internet	14.5%

1. d) % Households in Catalunya connected to the Internet

	Estadístiques SI (2001)	Òmnibus Municipal <sup>163</sup> (2001)	Encuesta metropolitana (2000)
% Households in Catalunya connected to the Internet	27.1%	37.1%	23.2%

3. a) % Persons connected to the Internet (% over total population)

Region	EGM (2001) % Persons connected to the Internet	AIMC (2001) <sup>164</sup> % Persons connected to the Internet
Andalucía	16.6%	11.8%
Aragón	13.5%	2.8%
Asturias	19.1%	3.3%
Baleares	20.3%	1.8%
Canarias	17.5%	3.8%
Cantabria	15.6%	1.2%
Castilla y León	14.3%	5.6%
Castilla La Mancha	11.2%	2.8%
Catalunya	24.8%	21.1%
Comunidad Valenciana	20.1%	9.1%
Extremadura	13.7%	1.8%
Galicia	12%	4.7%
Madrid	22.8%	19.8%
Murcia	14.8%	2%
Navarra	18.5%	1.4%
País Vasco (Euskadi)	20.7%	5.9%
La Rioja	22.9%	0.7%
Ceuta y Melilla		0.2%
Doesn't know or doesn't answer		0.4%
Total	-	100%

3. b) % Persons connected to the Internet in La Rioja (% over total population)

Fundación Riojana (2001)	
% Persons connected to the Internet	22.3%

<sup>163</sup> All the surveyed people in the Òmnibus Municipal study live in Barcelona

<sup>164</sup> % Distribution of the surveyed people. For this reason total is 100%

3. c) % Persons connected to the Internet in Navarra (%over total population<sup>165</sup>)

Instit. Estad. Navarra (2000)	
% Persons connected to the Internet in Navarra	28.9 %

4. % Persons connected to the Internet in Catalunya over total population<sup>166</sup> (distributed by frequency of use. )

Estadístiques SI (2001)	
Occasionally	42.9%
Once or more times per month	35.4%
Once or more times per week	29.8%
Daily	14.4%

<sup>165</sup> Population aged 15 or more

<sup>166</sup> Population aged 15 or more

5. Evolution of percentage of persons connected to the Internet (1997 – 2001)

[illegible]

<sup>167</sup> Both eEspaña 2001 and Telefonica (2001) report data from the EGM (2001) source

6. Evolution of percentage of persons connected to the Internet<sup>168</sup> in Catalunya (distributed by frequency of use. ) (2000-2001)

Estadístiques SI (2001)								
	Occasionally		Once or more times per month		Once or more times per week		Daily	
	% of persons connected to the Internet over total population	Growth rate (%)	% of persons connected to the Internet over total population	Growth rate (%)	% of persons connected to the Internet over total population	Growth rate (%)	% of persons connected to the Internet over total population	Growth rate (%)
2000	33.3%	-	24.8%	-	20.6%	-	10%	-
2001	42.9%	28.8	35.4%	42.7	29.8%	44.6	14.4%	44
Total 2000-2001		28.8		42.7		44.6		44

9. a) % Households in la Rioja with a computer

Fundación Riojana (2001)	
% Households with a computer	46.1%

9. b) % Households in Navarra with a computer

Instit. Estad. Navarra (2000)	
% Households in Navarra with a computer	42.9%

9. c) % Households in Catalunya with a computer

	Estadístiques SI (2001)/ Fundación Riojana (2001)	Ómnibus Municipal (2001)	Encuesta metropolitana (2000)
% Households with a computer	45.7%	57.9%	49.1%

14. a) % of mobile phone users in Navarra over total population

Instit. Estad. Navarra (2000)	
% of mobile phone users in Navarra	43.6%

14. b) % of mobile phone users over Catalan population

Estadístiques SI (2001)	
% of mobile phone users over Catalan population	77.3%

16. a) Distribution of Internet users according to their frequency of connection to the Internet in Cieza (Murcia) (% over Internet users)

Cieza (2000)	
Less than once a month	4%
Once a month	2%
Several times per month	12%
Several times per week	36%

<sup>168</sup> Over total population aged 15 or more

Less than once a day	11%
More than once a day	35%
Doesn't know/ doesn't answer	1%

16. b) Distribution of Internet users according to their frequency of connection to the Internet in País Vasco (% of persons over total surveyed people)

	Osie (2001)
Daily	10%
Every two or three days	8%
Once a week	12%
Never	7%
Doesn't know or doesn't answer	63%

19. a) % of Internet users by place of Internet connection in País Vasco (over total population)

	OSIE (2001)
Household	21%
Work	15%
University / Centre of studies	14%
Other / Doesn't know or doesn't answer	11%

19. b) % of Internet users by place of Internet connection in Navarra (over total population)

	Instit. Estad. Navarra (2000)
Household	9.8%
Work	14.9%
University / Centre of studies	52.1%

19. c) % of Internet users by place of Internet connection in Catalunya (over total Internet users)<sup>169</sup>

	Estadístiques SI (2001)	Ómnibus Municipal (2001)	Terrassa (1999)
Household	55.9%	77.7%	46%
Work	36.6%	42.6%	23%
University / Centre of studies	21.4%	14.7%	13%
Public places /Administration	12.5%		
Other places	23.9%	3.6%	

23. Monthly average time of connection to the Internet in Navarra (Measured in days /month)

	Instit. Estad. Navarra (2000)
Monthly average time of connection to the Internet	16.2 days/month

24. Intensity of Internet use by day of the week in Navarra (% of Internet users over Internet users)<sup>170</sup>

	Instit. Estad. Navarra (2000)
Monday	43.5%
Tuesday	43.3%
Wednesday	49.4%
Thursday	45.5%
Friday	52.5%
Saturday	64.2%
Sunday	62.5%

26. Distribution of Internet users in Navarra according to their kind of activity in the Internet (% of Internet users over Internet user who connect from home)

<sup>169</sup> The total sum of percentages is higher than 100% because many of the surveyed persons marked two or more answers

<sup>170</sup> The total sum of percentages is higher than 100% because many of the surveyed persons marked two or more answers

	Instit. Estad. Navarra (2000)
Bank services	24.5%
Newsgroups	24.5%
Search for information	40.8%
Chat	44.8%
Download music	32.1%
Download software	10%

38. % of Internet users in Navarra with a personal website (% over Internet users)

	Instit. Estad. Navarra (2000)
% Internet users in Navarra with a personal website	8.6%

*E-business related uses by persons and households in Spanish Regions*

40. Distribution of Internet shoppers in Navarra according to the product they shop on the Internet

	Instit. Estad. Navarra (2000)
Books / Magazines	6%
Cd's	7%
Journeys /Entertainment / Spare time /	5%
Hardware	4%
Software	3%
Electronic items	4%
Video /DVD	3%
Sportive clothes	1%
Information	1%
Financial services	2%
Tickets	7%

44. Distribution of Internet shoppers in Navarra according to the mode of payment on the Internet

	Instit. Estad. Navarra (2000)
Credit card	51.7%
Debit card	4.6%
Payment upon reception	19.9%
Bank charge	2.7%
Other	21.2%

*Internet access and uses by business firms in Spanish Regions*

53. a) % of business firms with Internet access

	Tecnologías SI (2000)
Region	% business firms connected to the Internet
Andalucía	45%
Aragón	45%
Asturias	43%
Baleares	54%
Canarias	63%
Cantabria	44%
Castilla y León	42%
Castilla La Mancha	52%

Catalunya	64%
Comunidad Valenciana	61%
Extremadura	40%
Galicia	52%
Madrid	68%
Murcia	52%
Navarra	52%
País Vasco (Euskadi)	41%
La Rioja	61%

53. b) % of business firms in Baleares with Internet access

IBIT (2001)	
% of business firms in Baleares with Internet access	60%

53. c) % of business firms in Navarra with Internet access

Instit. Estad. Navarra (2000)	
% of business firms in Navarra with Internet access	46.1%

53. d) % of business firms in Catalunya with Internet access<sup>171</sup>

	Estadístiques SI (2001) <sup>172</sup>	Tecnologías SI (2000)	Terrassa 1999
Access to the Internet	83.8%	64%	40.9%
Not access to the Internet	16.2%	36%	59.1%

55. Distribution of business firms in Baleares connected to the Internet by year of website presence

IBIT (2001)	
Less than a year	31%
1 year	30%
2 years	22.5%
3 years	11.5%
>3 years	5%

56. a) Distribution of business firms in Navarra with Internet connection according to the kind of use of the Internet

Instit. Estad. Navarra (2000)	
Sales of goods and services	3.9%
I+D	12.5%
Chats / Newsgroups	12.5%
Training	13%
Automatisation of production / distribution	20%
Purchase of goods and services	6.9%
Deal with Public Administration	16%
Access to data base of customers	20%
Advertising and marketing	29%
Downloading programs	31%
Access to data base of purveyors	33%
Information of business firms	41.9%
Get information from Public Administration	44.6%
e-bank	53.1%
Search for information	74.2%

<sup>171</sup> In the Bellmore Consulting (2000) study the percentage is 100% because this study is made to business firms with e-commerce

<sup>172</sup> The data refer to business firms of 10 or more employees

56. b) Distribution of business firms in Cieza (Murcia) with Internet connection according to the kind of use of the Internet

Ciezanet (2001)	
e-mail	78%
Information	56%
Read digital press	18%
Relation with the customer	50%
e-commerce sales	12%
Banks. Treasure	56%

56. c) Distribution of business firms in Baleares with Internet connection according to the kind of use of the Internet

IBIT (2001)	
e-mail	91%
Surfing the Internet	49.5%
B2C commerce	14.5%
B2B commerce	4%

59. a) % of business firms in Baleares connected to the Internet with a website

IBIT (2001)	
% of business firms with a website	30.5%

59. b) % of business firms in Navarra connected to the Internet with a website

Institut. Estad. Navarra (2000)	
% of business firms with a website	9.6%

59. c) % of business firms in Catalunya connected to the Internet with a website<sup>173</sup>

	Estadístiques SI (2001)	Terrassa 1999
With a website	49.9%	17.5%
Without a website	50.1%	82.5%

60. a) Distribution of business firms in Baleares with a website according to the kind of use of their webpage

IBIT (2001)	
Intranet	3%
Extranet	1%
B2B commerce	4%
B2C commerce	14.5%
Product information	28%
Business firm's information	35%

60. b) Distribution of business firms in Catalunya with a website according to the kind of use of their webpage

Bellmore Consulting (2000)	
Give information of their products / services	81.6%
Interact with the customer	39.3%
Transactions	20.9%

<sup>173</sup> In the Bellmore Consulting (2000) study the percentage is 100% because this study is made to business firms with e-commerce



65. % of business firms with e-commerce by Regions

Region	eEspanya 2001 <sup>174</sup>		Tecnologies SSI (2000)
	% of business firms with e-commerce over firms with Internet presence	% of business firms with e-commerce over the total of business firms	% of business firms with e-commerce over the total of business firms
Andalucía	33.9%	10.5%	8%
Aragón	22.6%	9.6%	12%
Asturias	36.3%	11.9%	13%
Baleares	42%	16.5%	7%
Canarias	40.9%	8.2%	10%
Cantabria	29.7%	8.6%	16%
Castilla-La Mancha	28.4%	5.1%	15%
Castilla y León	8.5%	2.2%	10%
Catalunya	33%	10.9%	14%
Comunidad Valenciana	28.8%	9.6%	15%
Extremadura	41.4%	7.8%	5%
Galicia	25.4%	9.3%	14%
Madrid	46%	20.4%	23%
Murcia	51%	13.7%	13%
Navarra	18.6%	4.9%	4%
País Vasco	20.5%	4.9%	4%
La Rioja	25.5%	5.6%	25%

66. Distribution best sold products on the Internet by Regions (% of business firms which sale every kind of product)

Eespanya 2001 <sup>175</sup>													
Region	Food	Drinks	Domestic shopping	Electronic	Learning	Hardware	Books	Spare time	Software	Accommodation booking	Trip booking	Clothes	Other products
Andalucía	26.6%									27.3%			
Aragón	24%										27.9%		
Asturias			22.5%						12.7%	72.1%			
Baleares										37.8%	55.1%		
Canarias				53.2%									44.6%
Cantabria										19.5%			26.9%
Castilla-La Mancha				19.5%									
Castilla y León		52.1%		41.7%									
Catalunya					25.8%		25.8%						
Comunidad Valenciana	41.6%											12.5%	
Extremadura									16.6%				58%
Galicia	30.4%									37%			
Madrid				29.4%									
Murcia						76.9%			76.9%				
Navarra								29.7%		29.7%			
País Vasco							32.6%		32.6%				
La Rioja	14.5%			20.5%									

<sup>174</sup> Original source (AECE 2000)

<sup>175</sup> Original source: AECE (2000)

69. Percent distribution of business firms in Balears with a website according to the total annual costs of the maintenance of their B2C

IBIT (2001)	
< 250.000 ptas	28.5%
251.000 – 500.000	14.5%
500.001 – 1.000.000 pts	7%
1.000.001 – 5.000.000 pts	14.5%
5.000.000 pts	5%
Doesn't know or doesn't answer	31%

72. Distribution of business firms in Balears with B2C e-commerce according to the main problems they have to sell their products on the Internet (Distributed by evaluation of the problem)

IBIT (2001)				
	Big problem	Medium problem	No problem	Doesn't know
Transport	0%	5.5%	63%	31.5%
Cash	0%	8.5%	83%	8.5%
Few customers / demand	0%	43%	51.5%	6.5%
High costs	3%	17%	71.5%	8.5%
Technology	0%	23%	71.5%	5.5%
Communication network	5.5%	37%	51.5%	5.5%
Technical security	3%	23%	65.5%	8.5%
Legal security	0%	3%	88.5%	8.5%
Purveyor	0%	20%	74.5%	5.5%

73. Distribution of business firms in Balears connected to the Internet according to their main barriers for e-commerce (Distributed by size of the problem)

IBIT (2001)				
	Big problem	Medium problem	No problem	Doesn't know
Internet is not secure	21%	28%	32%	18.5%
Few customers use Internet	18.5%	33%	31%	17.5%
Lack of knowledge / qualification	15.5%	32.5%	48%	4%
My products are difficult to classify	8.5%	12%	77%	2.5%
Transport problems	6%	11%	59.5%	24%
Not good service providers in Balears	7.5%	15.5%	23.5%	53.5%
Expensive implementation	4.5%	13.5%	65%	17%
I need partners	3.5%	18.5%	62%	16.5%

75. Distribution of business firms in Navarra which do not sell their products on-line according to their reasons for not selling their products on-line

Instit. Estad. Navarra (2000)	
Preference for the current model	60.6%
The customers are not ready	28.8%
It is not necessary	23.3%
The employees are not trained	19.3%
Lack of incentives	18.1%
Lack of public finance	17%

*Internet uses of Public Administration & Health Organizations in Spanish Regions*

97. % of Public Administration institutions with an accessible website by Region

eEspaña 2001			
Region	Total Public Administration institutions	Total Public Administration institutions with an accessible website	% of Public Administration institutions with an accessible website (% over the total)
Andalucía	79	58	73.4%

Aragón	7	5	71.4%
Asturias	10	7	70%
Baleares	13	12	92.3%
Canarias	25	17	68%
Cantabria	6	4	66.7%
Castilla-La Mancha	19	15	78.9%
Castilla y León	24	18	75%
Catalunya	86	77	89.5%
Ceuta	2	2	100%
Comunidad Valenciana	49	41	83.7%
Extremadura	11	9	81.8%
Galicia	23	18	78.3%
La Rioja	3	2	66.7%
Madrid	30	22	73.3%
Melilla	2	1	50%
Murcia	15	13	86.7%
Navarra	6	6	100%
País Vasco (Euskadi)	22	18	81.8%

98. % of IT use in the different management areas of the Public Regional Administrations

eEspaña 2001 <sup>176</sup>	
Accountant / Financial	91%
Tax /public finance	90%
Human Resources	87%
Economy	85%
Social welfare	78%
Employment	78%
Agriculture. Fishing	76%
Health	76%
Education	76%
Public attention	73%
Transport	72%
Public works	71%
Urbanismo y vivienda	68%
Environment	68%
Commerce	65%
Shopping	60%
Tourism	58%
Culture and sports	52%

99. % of e-information available for the citizen in the Public Regional Administrations

eEspaña 2001 <sup>177</sup>	
Competition for a job	67%
Subsidies	63%
Contest	62%
General information	60%
Application forms	57%
Publications	45%
Claims	38%
Proceedings	34%
Taxes	32%

100. Evaluation of the effectiveness of the IT impact in the Public Regional Administrations

eEspaña 2001 <sup>178</sup>
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<sup>176</sup> Original source: Paloma Sánchez & others

<sup>177</sup> Original source: Paloma Sánchez & others

<sup>178</sup> Original source: Paloma Sánchez & others

Better public attention	73%
Better internal communication	71%
Better external knowledge of the AC <sup>179</sup>	68%
Reduction of time spent in the management and resolution of proceedings	64%
Better management of the AC competences	64%
Better quality of the social services offered by the AC Administration	62%
Better information about citizens	58%
Better information about purveyors	54%
Better tax collection	53%
Expenses reduction	50%
Promotion of employment in the Public Administration	44%
Self-learning	40%

101. Evaluation of the importance of the barriers to IT penetration in the Public Regional Administrations

eEspaña 2001 <sup>180</sup>	
Problems derived from the organisational structure of the AC	46%
High purchasing costs	43%
High maintenance costs	40%
Quickly old fashioned equipment	38%
It is not strategical for the AC	33%
Distrust in IT	28%
Lack of employee qualification	28%
Difficult use of the hardware/software	27%
Refusal of the employees	25%
Language problems	25%
Problems with the IT purveyors	23%
Network limitations	22%
Lack of information about equipment, services and possibilities	16%

106. % of town halls of towns with more than 20.000 inhabitants according to the accessibility of their webpage (Distributed by Regions)

eEspaña 2001			
Region	Total town halls	Total town halls with an accessible website	% of town halls with an accessible website (% over the total)
Andalucía	62	42	67.7%
Aragón	3	1	33.3%
Asturias	8	5	62.5%
Baleares	9	8	88.9%
Canarias	16	9	56.3%
Cantabria	3	1	33.3%
Castilla-La Mancha	13	9	69.2%
Castilla y León	14	9	64.3%
Catalunya	45	39	86.7%
Ceuta	1	1	100%
Comunidad Valenciana	42	34	81%
Extremadura	7	5	71.4%
Galicia	18	13	72.2%
La Rioja	1	1	100%
Madrid	24	16	66.7%
Melilla	1	1	100%
Murcia	12	10	83.3%
Navarra	3	3	100%
País Vasco (Euskadi)	17	13	76.5%

<sup>179</sup> AC stands for Autonomous Communities

<sup>180</sup> Original source: Paloma Sánchez & others

*Access and use of on-line education by Internet users in Spanish Regions*

116. Number of IT PhD . IT masters degrees and IT professional degrees by Region

eEspaña 2001				
Region	Number of institutions	Number of PhD	Number of Masters	Number of professional degrees
Andalucía	3	-	3	1
Asturias	1	2	-	-
Baleares	1	-	2	-
Canarias	1	2	-	-
Cantabria	1	-	1	-
Catalunya	13	8	41	71
Extremadura	1	-	1	-
Galicia	3	4	3	3
Madrid	12	10	15	13
Navarra	1	-	1	-
País Vasco (Euskadi)	1	-	1	1
C.Valenciana	4	27	4	1
Zaragoza	2	1	-	2

#### 4.1.2. Demographical and sociological variables of Internet users (Spanish Regions)

##### *Persons and households*

127. Distribution of Internet users in Cieza (Murcia) according to household dimension (% over all households with access to the Internet)

Ciezanet (2000)	
Households with 1 person	0%
Households with 2 persons	6%
Households with 3 persons	12%
Households with 4 persons	39%
Households with 5 persons	28%
Households with 6 persons	9%
Households with 7 persons	4%
Households with 8 persons	2%

126. Distribution of Internet users in La Rioja according to income levels per household (% over all Internet users)

Fundación Riojana (2001)	
Households with income levels of less than 125,000 ptas/month	1%
Households with income levels of 125.001-210,000 ptas./month	11.5%
Households with income levels of 210.001-420,000 ptas./month	25.5%
Households with income levels of more than 420,000 ptas/month	2.9%
Doesn't know or doesn't answer	59.1%

128. Distribution of Internet users in Navarra according to city / town dimension

Instit. Estad. Navarra (2000)	
Less than 1.000 inhabitants	3%
Between 1,000 – 5,000 inhabitants	16%
Between 5,001 – 20,000 inhabitants	8%
More than 20,000 inhabitants	3%
Pamplona and surrounding towns	71%

130. a) Distribution of Internet users in Navarra according to their gender (% over Internet users)

Instit. Estad. Navarra (2000)	
Male	61%
Female	39%

130. b) Distribution of Internet users in La Rioja according to their gender (% over Internet users)

Fundación Riojana (2001)	
Male	66.5%
Female	33.5%

130. c) Distribution of Internet users in Cieza (Murcia) according to their gender (% over Internet users )

Ciezanet (2000)	
Male	50%
Female	49%

131. a) % of Internet users in País Vasco according to their gender (% over total population)

Osie (2001)	
Male	33.2%

Female	23.1%
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131. b) % of Internet users in Catalunya according to their gender (% over total population)

	Estadístiques SI (2001)	Ómnibus municipal (2001)
Male	38.3%	48.7%
Female	21.8%	31.4%

134. a) Distribution of Internet users in País Vasco by their age (Distributed by frequency of use) (% over Internet users)

Osie (2001)			
	Daily	Every two or three days	Once a week
Between 18 – 24 years old	16.7%	18.9%	23.7%
Between 25 – 34 years old	12.4%	11.6%	19.6%
Between 35 – 49 years old	12.9%	7.7%	12%
Between 50 – 64 years old	6.2%	3.4%	4.7%
> 65 years old	1.6%	0.6%	0.9%

134. b) Distribution of Internet users in Navarra by their age (% over Internet users)

	Instit. Estad. Navarra (2000)
Between 15 – 24 years old	28%
Between 25 – 34 years old	25%
Between 35 – 44 years old	26%
Between 45 – 54 years old	12%
Between 55 – 64 years old	6%
> 65 years old	2%

134. c) Distribution of Internet users in La Rioja by their age (% over Internet users)

	Fundación Riojana (2001)
Between 18 – 31 years old	48.4%
Between 32 – 45 years old	28.8%
Between 46 – 59 years old	17.3%
> 60 years old	5.4%

134. d) Distribution of Internet users Cieza (Murcia) by their age (% over Internet users)

	Ciezanet (2000)
<17 years old	23%
Between 18 – 29 years old	30%
> 30 years old	47%

135. % of Internet users in Catalunya by their age (% over total population)

	Estadístiques SI (2001) <sup>181</sup>
Between 15 –24 years old	64.8%
Between 25 – 39 years old	44.4%
Between 40 – 54 years old	20.6%
>55 years old	3.4%

	Ómnibus municipal (2001)
Between 16 –24 years old	73.9%
Between 25 – 34 years old	66.1%
Between 35 – 44 years old	53.6%
Between 45 – 54 years old	44.2%

<sup>181</sup> The data refer to weekly Internet users

Between 55 – 64 years old	19.4%
> 65 years old	3.5%

139. a) % of Internet users in País Vasco according to their educational level (% over total population)

OSIE (2001)	
No studies	2.4%
Primary education (EGB / ESO)	5.5%
Secondary education (BUP / FP)	25.2%
University degree	43.4%

139. b) % of Internet users in Navarra according to their educational level (% over total Internet users)

Instit. Estad. Navarra (2000)	
No studies	
Primary education (EGB / ESO)	22%
Secondary education (BUP / FP)	41%
University degree	38%

139. c) % of Internet users in La Rioja according to their educational level (% over total Internet users)

Fundación Riojana (2001)	
No studies	0%
Primary education (EGB / ESO)	11.6%
Secondary education (BUP / FP)	40.3%
University degree	48.1%

139. d) % Internet users in Cieza (Murcia ) according to their educational level (% over Internet users)

Ciezanet (2000)	
No studies	3%
Primary education (EGB / ESO)	30%
Secondary education (BUP / FP)	37%
University degree	30%

139. e) % Internet users in Catalunya according to their educational level (% over total population)

	Estadístiques SI (2001) <sup>182</sup>	Terrassa 1999
No studies	5.3%	0%
Primary education (EGB / ESO)	10.8%	7%
Secondary education (BUP / FP)	50.9%	23%
University degree	60.5%	52%

143. Distribution of Internet users in Navarra according to their cultural / geographical origin

Instit. Estad. Navarra (2000)	
Pamplona	73%
North	7%
Center	7%
South	12%

144. % of weekly Internet users in Catalunya according to their cultural / geographical origin (% over total population)

Estadístiques SI (2001)	
Barcelona	32.4%

<sup>182</sup> In the Estadístiques SI (2001) study the Internet users are weekly Internet users



Girona	18%
Lleida	21.3%
Tarragona	24.9%

145. Distribution of Internet users in Navarra according to their job

Institut. Estad. Navarra (2000)	
Work in his /her own business	14%
Work for a firm / organisation	48%
Student	21%
Unemployed	7%
Doesn't work	1%
Housewife	6%
Retired	2%
Other situations	1%

146. % of weekly Internet users in Catalunya according to their job (% over total population)

Estadístiques SI (2001)	
Work in his /her own business	39.9%
Work for a firm / organisation	39.9%
Student	70.4%
Unemployed	20.5%
Housewife	
Retired	

#### Business firms

148. % of business firms in Balears with a website according to their dimension (over the total of business firms)

IBIT (2001)	
Between 6-10 employees	17%
Between 11-25 employees	28%
Between 26-50 employees	44%
Between 50-250 employees	50%

150. % of business firms in Balears with a website according to their activity

IBIT (2001)	
Food	23%
Shoes / Leather / Fashion	35%
Pearls / Jewelry	33.5%
Wood	15%