



<http://www.uoc.es/in3>

DIFFUSION AND USES OF INTERNET IN CATALONIA AND IN SPAIN
A Commented Summary of Available Evidence, as of 2001.

Manuel Castells
María Isabel Díaz de Isla
Researchers, IN3-UOC

December 2001

PROJECT INTERNET CATALONIA (PIC)
PIC Working Paper Series
PICWP/1201

<http://www.uoc.es/in3/wp/picwp1201>

WORKING PAPER

| WORKING PAPER | |
|----------------------|---|
| TITLE | DIFFUSION AND USES OF INTERNET IN CATALONIA AND IN SPAIN A Commented Summary of Available Evidence, as of 2001. |
| RESEARCHERS | Manuel Castells María Isabel Díaz de Isla Researchers, IN3-UOC |
| DATE | December 2001 |
| PROJECT | PROJECT INTERNET CATALONIA (PIC) <i>PIC Working Paper Series</i> PICWP/1201 |

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.

SUMMARY

1. INTRODUCTION

2. THE CATALAN NETWORK SOCIETY. A commented summary of the evidence on the uses of Internet in Catalonia, 1999-2001.

2.1. Tables on Catalonia (Organized by Variables)

2.1.1. Internet use variables

2.1.2. Demographical and sociological variables of Internet users

3. THE SPANISH NETWORK SOCIETY. A commented summary of the evidence on the uses of Internet in Spain, 2000-2001.

3.1. Tables on Spain (Organized by Variables)

3.1.1 Internet use variables

3.1.2. Demographical and sociological variables of Internet users

4. THE NETWORK SOCIETY IN THE SPANISH REGIONS. A commented summary of the evidence on the uses of Internet in Spanish Regions, 2000-2001

4.1. Tables on Spanish Regions (Organized by Variables)

4.1.1. Internet use variables

4.1.2. Demographical and sociological variables of Internet users

5. METHODOLOGICAL NOTE

5.1. Procedure followed in the elaboration of this analytical summary

5.2. Description of Studies & Surveys included in the Data Base

5.2.1. List of Studies

5.2.2. Characteristics of each study

6. APPENDICE: LISTING OF VARIABLES ANALYZED

6.1. Internet use variables

6.2. Demographical and sociological variables of Internet users

6. APPENDICE: LISTING OF VARIABLES ANALYZED

6.1. Internet use variables

Access to Internet and use by households and persons

1. % Households connected to the Internet
2. Evolution of percentage of households connected to the Internet
3. % Persons connected to the Internet
4. % Persons connected to the Internet (distributed by frequency of use.)
5. Evolution of percentage of persons connected to the Internet
6. Evolution of percentage of persons connected to the Internet (distributed by frequency of use.)
7. Distribution of households connected to the Internet by year of connection
8. Distribution of persons connected to the Internet by year of connection
9. % Households with a computer
10. Evolution of percentage of households with a computer
11. % Internet connected persons among persons with access to a computer
12. Distribution of households with mobile phone according to the number of phones
13. Evolution of percentage of households with mobile phone by the number of phones
14. % of mobile phone users over ... population
15. Evolution of mobile phone users
16. Distribution of Internet users according to their frequency of connection to the Internet (% of Internet users over total Internet users)
17. Evolution of percentage of Internet users by frequency of connection to the Internet (% of Internet users over total Internet users)
18. % of Internet users distributed by place of connection and by frequency of use
19. % of Internet users by place of Internet connection (over total persons connected to the Internet)
20. Evolution of percentage of Internet users by place of Internet connection (over total persons connected to the Internet)
21. Distribution of households connected to the Internet according to their weekly average time of connection to the Internet (% over weekly Internet users in households)
22. Weekly average time of connection to the Internet
23. Monthly average time of connection to the Internet (Measured in hours/month)
24. Intensity of Internet use by day of the week
25. % of Internet users who substitute the time spent in Internet for other activities
26. Distribution of Internet users according to their kind of activity in the Internet
27. Evolution of Internet users according to the kind of activity on the Internet
28. Distribution of Internet users according to the kind of activity when surfing the web
29. Distribution of Internet users according to the language of visited webs
30. Distribution of Internet users according to their first language
31. % Internet users who use Napster
32. % Internet users who visit adult websites
33. Distribution of Internet users according to the main problems they face when surfing Internet
34. Most visited .es domains over most visited websites (ordered by number of visits)
35. Distribution of email users according to the weekly average of sent / received emails
36. Distribution of email users according to the email software used
37. Distribution of email users according to the frequency of received spamming
38. % of Internet users with a personal website
39. Distribution of Internet users by number of bookmarks stored in their browsers

E-business related uses by persons and households

40. Distribution of Internet shoppers according to the product they shop on the Internet
41. Distribution of Internet shoppers according to the yearly amount of money they have spent when shopping on the Internet
42. Distribution of Internet shoppers according to their reasons for shopping on the Internet
43. Distribution of Internet users according to their reasons for not shopping on the Internet (% over Internet users who don't shop on the Internet)
44. Distribution of Internet shoppers according to the mode of payment on the Internet
45. Distribution of Internet users according to their opinion about credit card security on the Internet
46. % of on-line banking over Internet users (distributed by kind of use)
47. % of weekly Internet users visiting Health and Public Administration websites
48. % of weekly Internet users who deal with Health organisations and Public Administration by the Internet

Infrastructures related to the use of Internet

49. % of Internet hosts per 100 inhabitants (geographical area)
50. % of web servers per 1000 inhabitants (geographical area)
51. % of secure web servers per 100.000 inhabitants (geographical area)
52. % of household Internet users with a high speed Internet access (distributed by kind of access)

Internet access and uses by business firms

53. % of business firms with Internet access
54. Distribution of business firms connected to the Internet by year of connection
55. Distribution of business firms connected to the Internet by year of website presence
56. Distribution of business firms with Internet connection according to the kind of use of the Internet
57. % of business firms whose main activity is developed on the Internet
58. Distribution of business firms with Internet access according to the number of full time employees needed for the presence of the firm on the Internet
59. % of business firms connected to the Internet with a website
60. Distribution of business firms with a website according to the kind of use of their webpage
61. Distribution of websites of business firms according to the kind of hosting
62. Distribution of websites of business firms according to the size of the site (measured in Mb)
63. Distribution of websites of business firms according to the kind of access
64. Distribution of websites of business firms according the monthly traffic of the website
65. % of business firms with e-commerce
66. Distribution best sold products on the Internet by Spanish Regions (% of business firms which sale every kind of product)
67. Distribution of services/products offered by business firms on the Internet according to the kind of product/service
68. Distribution of business firms on the Internet according to their kind of e-commerce (B2B, B2C, B2B/C)
69. Percent distribution of business firms with a website according to the total annual costs of the maintenance of their B2C
70. Evolution of e-business in Spain in the B2C (Business to Consumer) e-commerce
71. Evolution of e-business in Spain in the B2B (Business to Business) e-commerce
72. Distribution of business firms with B2C e-commerce according to the main problems they have to sell their products on the Internet (Distributed by evaluation of the problem)
73. Distribution of business firms connected to the Internet according to their main barriers for e-commerce (Distributed by size of the problem)
74. Distribution of business firms which sell products on-line according to the main problems they have to sell their products on the Internet
75. Distribution of business firms which do not sell their products on-line according to their reasons for not selling their products on-line

76. Percent distribution of Internet portals by activity
77. % of employees of business firms with intranet access by department
78. Distribution of business firms according to the kind of free access content of their intranet (% over business firms with intranet)
79. Percent distribution of business firms according to the level of penetration of IT
80. Evaluation of the IT impact on business firms according to the level of penetration of IT
81. Evaluation of the expectation of the IT impact on business firms according to the level of penetration of IT
82. Evaluation of the importance of the barriers to IT penetration in business firms (Evaluated by business firms with no IT access)
83. Ranking of Areas by level of IT penetration (Comparison Spain – World + Spanish Regions)
84. Percent distribution of business firms according to the frequency of IT training among their employees
85. Evaluation of the importance of the barriers to telecommuting in business firms (% of mentions of the surveyed firms)
86. % of telecommuters over the total of the working population
87. Percent distribution of the most valuable aspects of online bank according to online bank customers
88. Percent distribution of barriers to online bank use according to Internet users
89. Forecast of growth of online bank users
90. Percent distribution of business firms according to the main objectives of the firms in relation to their website
91. Percent distribution of business firms with a website according to the total annual costs of the maintenance of their website
92. Percent distribution of business firms with a website according to the human resources annual costs of the maintenance of their website
93. Percent distribution of business firms with a website according to their forecast of the trend in costs of the maintenance of their website in a short term
94. Percent distribution of business firms with a website according to the total annual income due to their website
95. Percent distribution of business firms with a website according to the annual sale of products /services on-line income
96. Percent distribution of business firms with a website according to their forecast of the evolution in income in a short term due to their website

Internet uses of Public Administration & Health Organizations

97. % of Public Administration institutions with an accessible website
98. % of IT use in the different management areas of the Public Regional Administrations
99. % of e-information available for the citizen in the Public Regional Administrations
100. Evaluation of the effectiveness of the IT impact in the Public Regional Administrations
101. Evaluation of the importance of the barriers to IT penetration in the Public Regional Administrations
102. Distribution of town halls connected to the Internet
103. % of town halls with email
104. Percent distribution of town halls according to their website presence
105. Percent distribution of town halls of towns with more than 20.000 inhabitants according to their website presence
106. % of town halls of towns with more than 20.000 inhabitants according to the accessibility of their webpage
107. Distribution of town halls according to their IT penetration level
108. % of health organisations connected to the Internet

Access and use of on-line education by Internet users

109. % schools connected to the Internet
110. % school-rooms with Internet access
111. % of primary and secondary students with Internet access
112. Internet use frequency at schools (see Astrolabi)
113. Median of computers with Internet access per school (Distributed by kind of school)
114. Number of students per computer connected to the Internet
115. Distribution of primary and secondary students according to the IT use frequency at schools (Distributed by courses)
116. Number of IT PhD , IT masters degrees and IT professional degrees
117. % of organisations which offer on-line education by kind of organisation
118. Distribution of e-learning offer according to the kind of content offered by e-teaching organisations
119. Distribution of organisations according to the number of courses taught by each one
120. Distribution of Internet portals according to the educational content they offer
121. % of on-line courses according to the kind of organisation teaching them
122. Distribution of total amount of on-line courses according to the amount of teaching
123. Distribution of professional masters degrees in Spain (on-line and traditional) according to the cost per credit

6.2 Demographical and sociological variables of Internet users

Persons and households

124. Distribution of Internet users according to household dimension (% over all households with access to the Internet)
125. % of households with access to the Internet according to the household dimension (% over all households)
126. Distribution of Internet users according to income levels per household
127. % of households with access to the Internet according to their monthly income levels (% over all households)
128. Distribution of Internet users according to city / town dimension
129. % of households with access to the Internet according to city / town dimension (% over all households)
130. Distribution of Internet users according to their gender
131. % of Internet users according to their gender (% over total population)
132. Evolution of percentage of Internet users according to their gender
133. Evolution of difference in Internet use between genders (Male-Female percentages)
134. Distribution of Internet users by their age
135. % of Internet users by their age
136. Evolution of percentage of Internet users by their age
137. Distribution of Internet users according to their marital status
138. Distribution of Internet users according to their educational level
139. % Internet users according to their educational level
140. Distribution of Internet users according to their social class
141. Evolution of Internet users according to their social class
142. Distribution of Internet users according to their ethnicity
143. Distribution of Internet users according to their cultural / geographical origin
144. % of weekly Internet users according to their cultural / geographical origin (% over total population)
145. Distribution of Internet users according to their job
146. % of weekly Internet users according to their job (% over total population)

Business firms

147. % of business firms connected to the Internet according to their dimension (over the total of business firms)
148. % of business firms with a website according to their dimension (over the total of business firms)

- 149. % of business firms with connection to the Internet according to their activity
- 150. % of business firms with a website according to their activity
- 151. Distribution of schools connected to the Internet according to their educational level (Primary, Secondary, etc)