

MEASURING INFORMATION SOCIETY 2000

A Eurobarometer survey carried out for
the European Commission
by INRA (Europe) – European Coordination Office
in Spring 2000

ANALYTICAL REPORT

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1. FOREWORD

The Standard Eurobarometer is a face to face survey carried out for the European Commission by INRA (Europe) E.C.O., a European Network of Market and Public Opinion Research agencies. The survey covers the population of the respective nationalities of the European Union Member Countries, aged 15 years and over, resident in each of the Member Countries.

The basic sample design applied in all Member Countries is a multi-stage, random (probability) one. In each EU country, a number of sampling points was drawn with probability proportional to population size (for a total coverage of the country) and to population density. The points were drawn systematically from each of the "administrative regional units", after stratification by individual unit and type of area. They thus represent the whole territory of the Member Countries according to the Eurostat-NUTS II (or equivalent) and according to the distribution of the resident population of the respective EU-nationalities in terms of metropolitan, urban and rural areas. In each of the selected sampling points, a starting address was drawn, at random. Further addresses were selected as every Nth address by standard random route procedures, from the initial address. In each household, the respondent was drawn, at random. All interviews were face-to-face in people's homes and in the appropriate national language.

The sample is at least 1,000 people per country with the exception of Luxembourg (600), Germany (2,000) and the United Kingdom (1,300). In order to further refine representativeness of the sample, weighting matrices are calculated for each country on the basis of comparisons between the sample and the universe as described by Eurostat population data or from national statistics (using marginal and intercellular weighting). As such in all countries, minimum sex, age, region NUTS II and size of locality were introduced in the iteration procedure. For international weighting (i.e. EU averages), INRA (Europe) applies the official population figures as published by Eurostat in the Regional Statistics Yearbook (data for 1997 or 1996).

Wave 53.0 of the Standard Eurobarometer was carried out between 1 April and 31 May 2000. In total, 16,078 individuals were interviewed for this survey, representative of the European population aged 15 and over.

Readers are reminded that survey results are estimations, the accuracy of which, everything being equal, rests upon the sample size and upon the observed percentage. The following table shows confidence intervals for samples of 1,000 (values per country) and of 16,000 (values considered for the entire European Union).

Observed percentages	10% or 90%	20% or 80%	30% or 70%	40% or 60%	50%
Confidence intervals(*)					
for n = 1,000	± 1.9 % pt	± 2.5 % pt	± 2.8% pt	± 3.0 % pt	± 3.1 % pt
for n = 16,000	± 0.5 % pt	± 0.6 % pt	± 0.7 % pt	± 0.8 % pt	± 0.8 % pt

(*) At a confidence level $(1-\alpha) = 95\%$

Note that all graphics were willingly drawn using the same full range scale of 0 to 100 per cent so as to ensure unbiased perception and comparisons of proportions observed for all variables.

This report is structured in five parts. The first section looks at the ownership and use of various information and communication technologies. The second focuses on the interest raised by these technologies and intentions to purchase them. The last three sections investigate the use of the Internet (applications and services, impact on other activities and connection).

The social-demographic variables used in this report are:

- 1) Country
- 2) Gender
- 3) Age (in four bands: 15-24, 25-39, 40-54 and 55 years or more)
- 4) Professional status (in three groups: Self-employed, Employed and Not working)
- 5) Household income (harmonised in four bands)
- 6) Size of household (number of people living in household)
- 7) Level of education (Terminal Education Age, i.e. age when finished full time education, in four bands: age of 15 or less, 16-19, 20 years or more, still studying)
- 8) Media use index (aggregate of three questions regarding exposure to *news* media – radio, television and newspapers-, in four groups)

When possible and appropriate, relevant variables are considered for cross-tabulation with various social-demographic variables so as to determine the amplitude, if any, of inter-group differences.

This report was prepared by François Heinderyckx, PhD, lecturer at the University of Brussels (ULB), Chairman of the department of Communication, information and journalism.

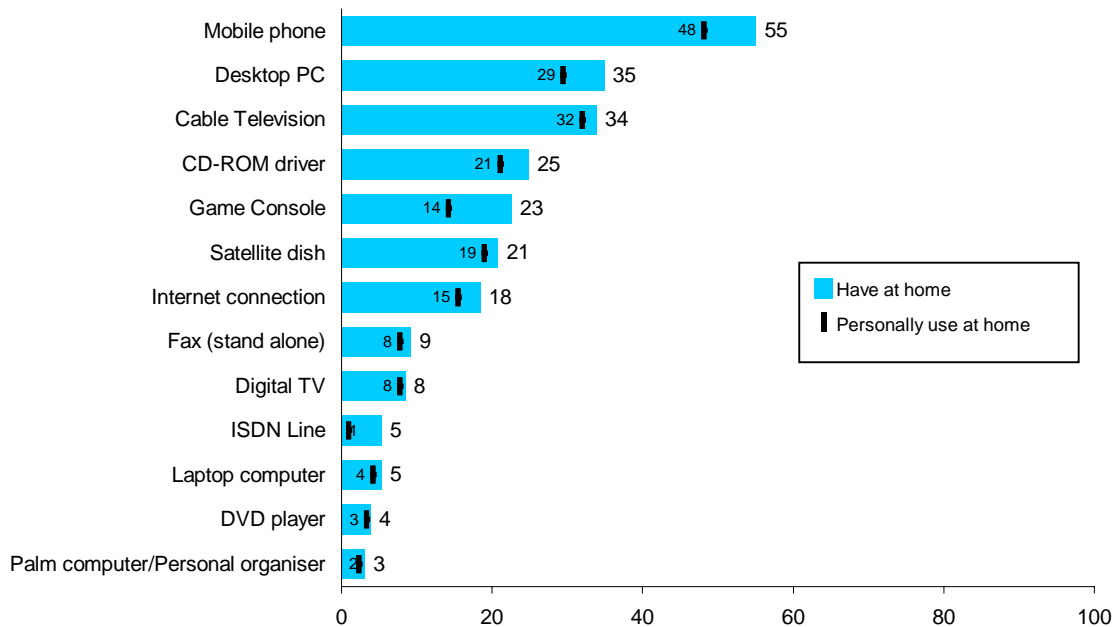
2. OWNERSHIP AND USE OF TECHNOLOGIES

Two separate sets of questions surveyed *ownership* and *use* of thirteen different technologies at home. The ownership set of questions (q79a) can be considered as household equipment, while the questions querying the use (q79b) can be read as individual use of the corresponding equipment. The reader is warned that this study is not aimed at measuring penetration levels of the various technologies. The results described and analysed below are mere indications of trends and contrasts and should not be used as exact household penetration figures.

In order to directly confront figures of ownership and use, both series were plotted on the same graph. Note that European average figures (EU15) are weighted averages (values observed for each country are given a weight proportional to the total population size of that country).

The proportions of respondents who actually *use* the different technologies that they have at home show a variety of patterns depending on the technologies and the groups considered. It can be assumed that where proportions of these two variables are close in value, the equipment considered is used by many of the household members (e.g. cable television or satellite dish), while diverging proportions indicate usage by certain members only (e.g. game console).

Figure 1: Technologies that respondents have/use at home



Base: all respondents (n=16,078)

Thirteen technologies were surveyed in this study. Among those, mobile phones achieve the highest penetration with 55 per cent of respondents saying that they have a mobile phone at home, and 48 per cent personally using them. Desktop computers and subscription to cable television both achieve a penetration of more than a third. Desktop computers show a slightly

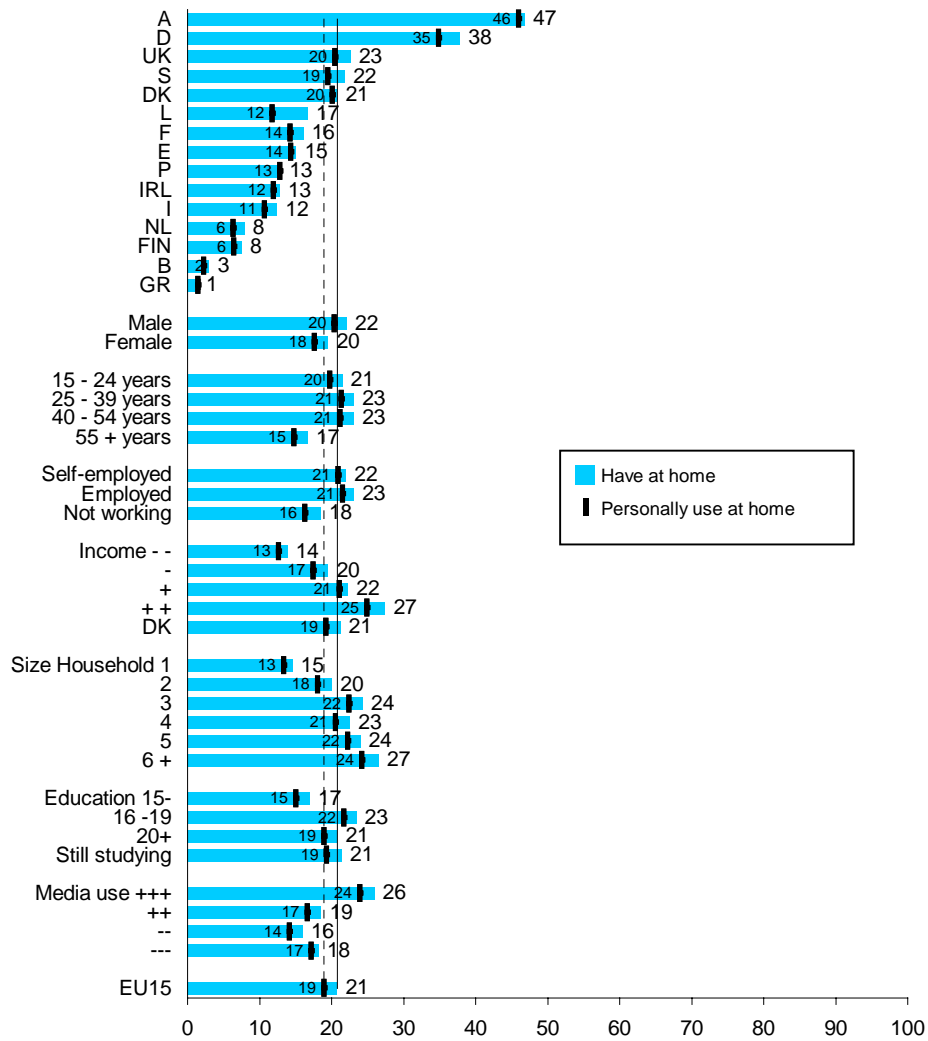
lower level of use, indicating that not everybody in the household uses the computer. One household in four is equipped with a CD-ROM driver connected to a computer.

Nearly a quarter of European home appear to have a game console, but less than 14 per cent of respondents personally use it. This discrepancy indicates that in many cases only certain household members use the game console.

Over one in five have a satellite dish. Nearly 20 per cent of European respondents say they have an Internet connection at home (to be compared with 35 per cent having a desktop computer), slightly less say they personally use it. All other technologies show penetrations below 10 per cent, on average, in the European Union. A more detailed analysis of the data by technology can be found hereafter.

2.1. Satellite dish

Figure 2: Have / Use a satellite dish at home



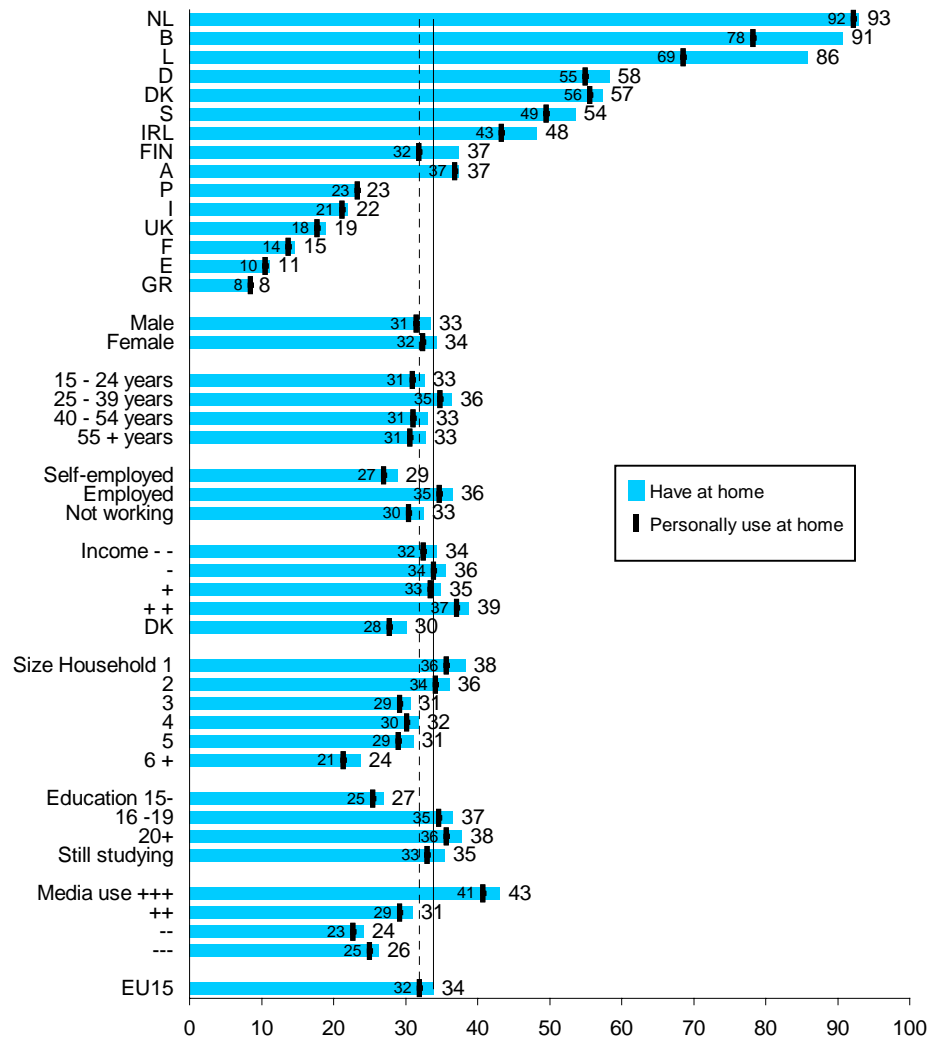
Base: all respondents (n=16,078)

Satellite dishes show varied penetration levels across Europe, between the marginal levels observed in Greece (1.4 per cent) or Belgium (3.1 per cent), and the highest figures in

Germany (38 per cent) and Austria (47 per cent). A significant correlation is observed with household income (over one quarter of upper income household have a satellite dish, less than 15 per cent among the lowest income). Larger families as well as news media heavy users are also more likely to have a satellite dish.

2.2. Cable television

Figure 3: Have / Use cable television at home

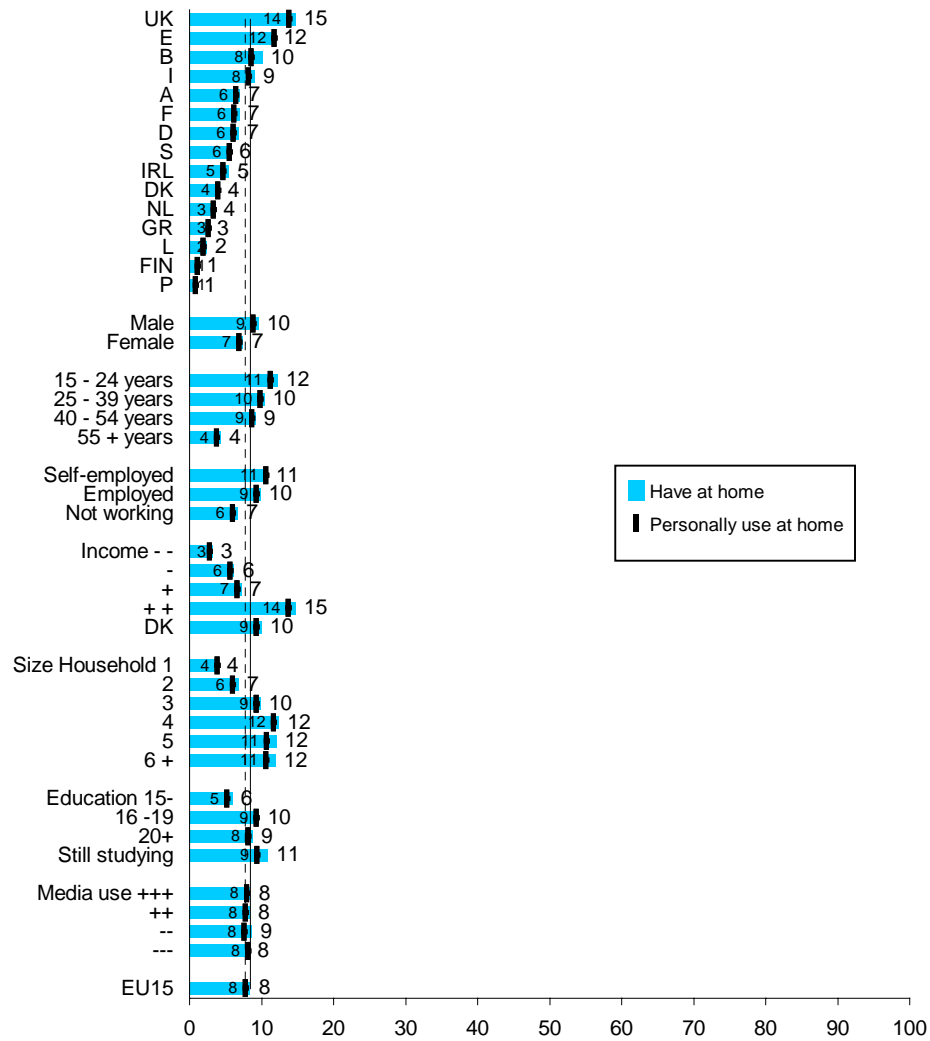


Base: all respondents (n=16,078)

The spectrum of penetration of cable television is particularly marked among countries, ranging from 8 per cent in Greece to more than 90 per cent in Belgium and the Netherlands. Smaller households, highest revenues and news media heavy users show penetration figures above average.

2.3. Digital TV (subscription)

Figure 4: Have / Use digital television at home

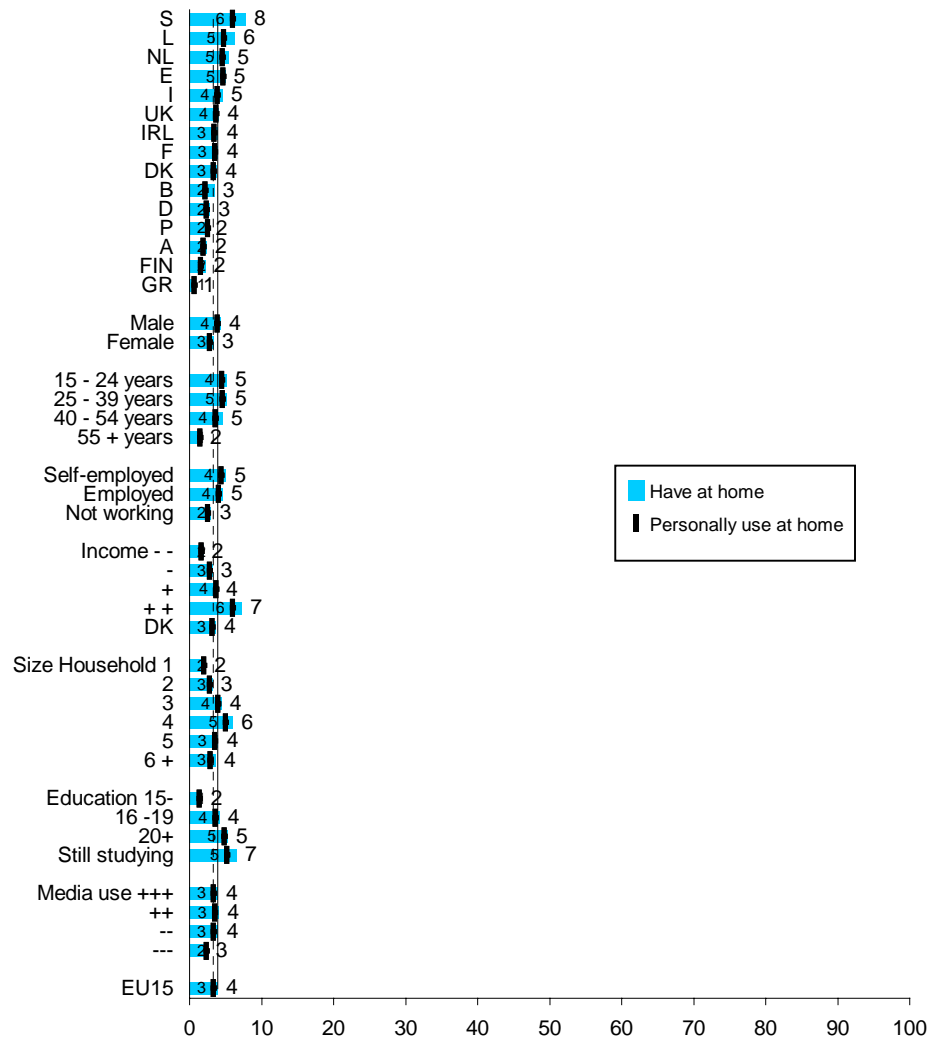


Base: all respondents (n=16,078)

Subscription to digital television packages remains marginal in Europe. Only Belgium, Spain and the United Kingdom show penetration figures of 10 per cent or more. Higher incomes and larger households seem more found of digital television.

2.4. DVD player (connected to television)

Figure 5: Have / Use a DVD player at home

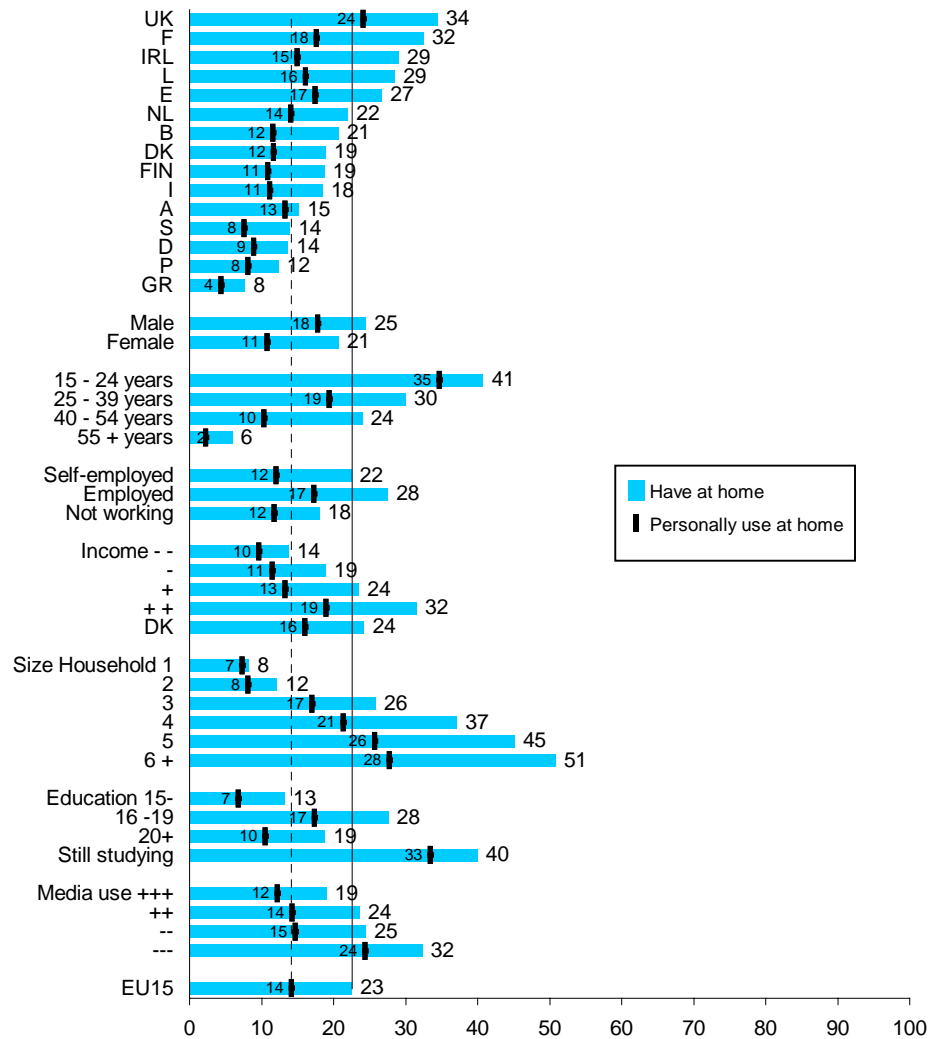


Base: all respondents (n=16,078)

DVD players remain marginal in Europe. They are more frequent among highest income households, and appear particularly popular among students.

2.5. Game console

Figure 6: Have / Use a game console at home



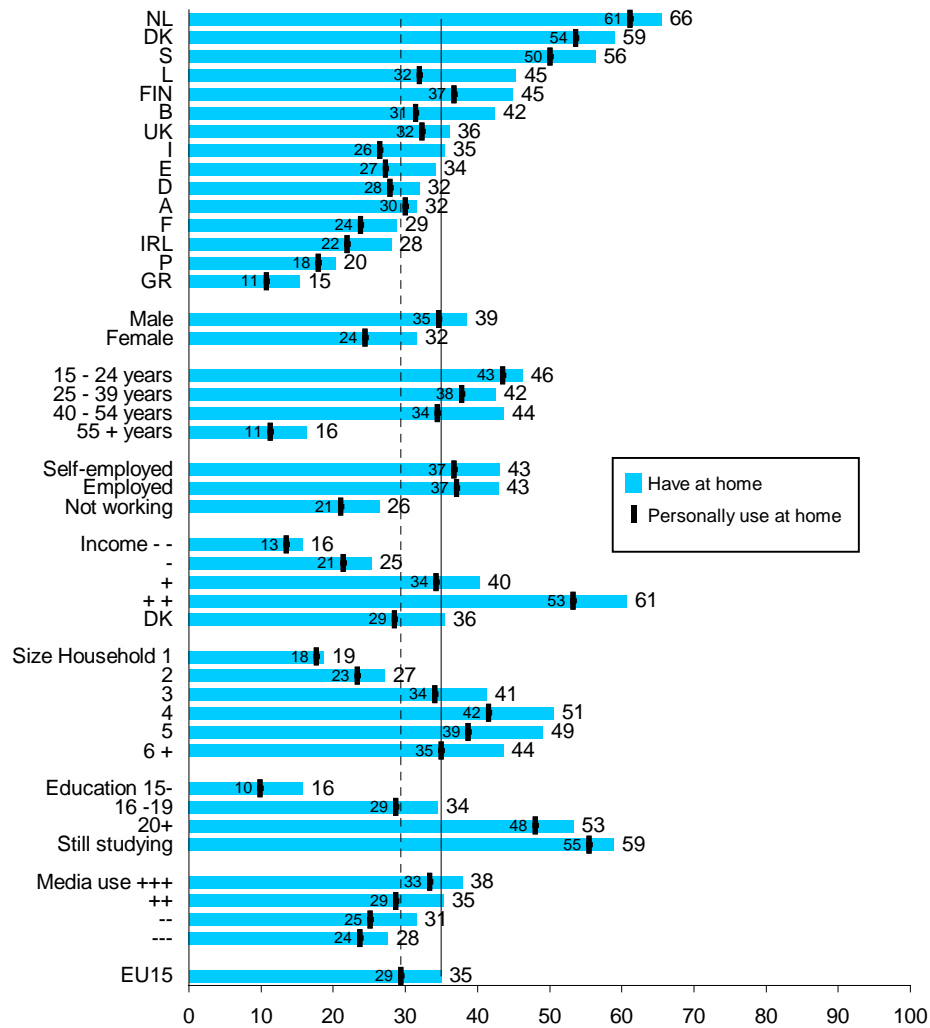
Base: all respondents (n=16,078)

Game consoles ownership is spectacularly contrasted among demographic groups. International differences are marked, although not following any particular geographical pattern: Greece, Portugal, Germany, Sweden and Austria show penetration of 15 per cent or less while Spain, Luxembourg, Ireland, France and the United Kingdom show figures of one quarter up to one third of households equipped with a game console.

Game console ownership decreases rapidly with age, increases with income, and dramatically and linearly increases with size of household. More than half of the largest families (6 people and more) say they own a game console at home. Game consoles are also negatively correlated with news media consumption.

2.6. Desktop computer

Figure 7: Have / Use a desktop computer at home



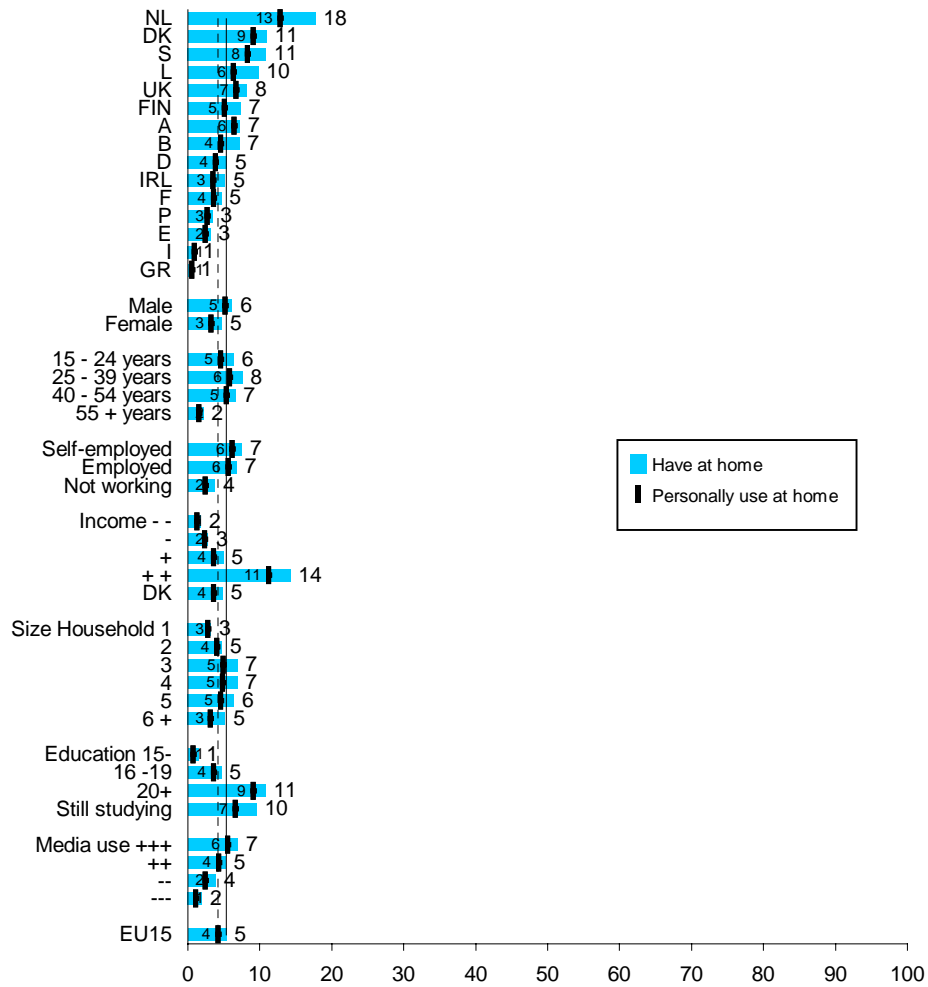
Base: all respondents (n=16,078)

Three countries (Sweden, Denmark and the Netherlands) show more than half of the households equipped with a desktop computer, while that proportion falls to 20 per cent in Portugal and 15 per cent in Greece. Between these two extreme clusters, most countries show rather similar penetration figures around the European average. Senior Europeans (55 years and over) seem particularly impervious to computers (only 16 per cent).

Household income appears crucial with 61 per cent of highest income household equipped versus only 16 per cent of lowest income. Size of household also seems crucial, with a peak level of 51 per cent in households of four people. Education level shows contrasts similar in amplitude to those observed for revenues: only 16 per cent people who finished education at the age of 15 or younger have a computer at home, while this proportion rises to 53 per cent among those who studied at least until the age of 20, and tops at 59 per cent among those currently studying.

2.7. Laptop computer

Figure 8: Have / Use a laptop computer at home

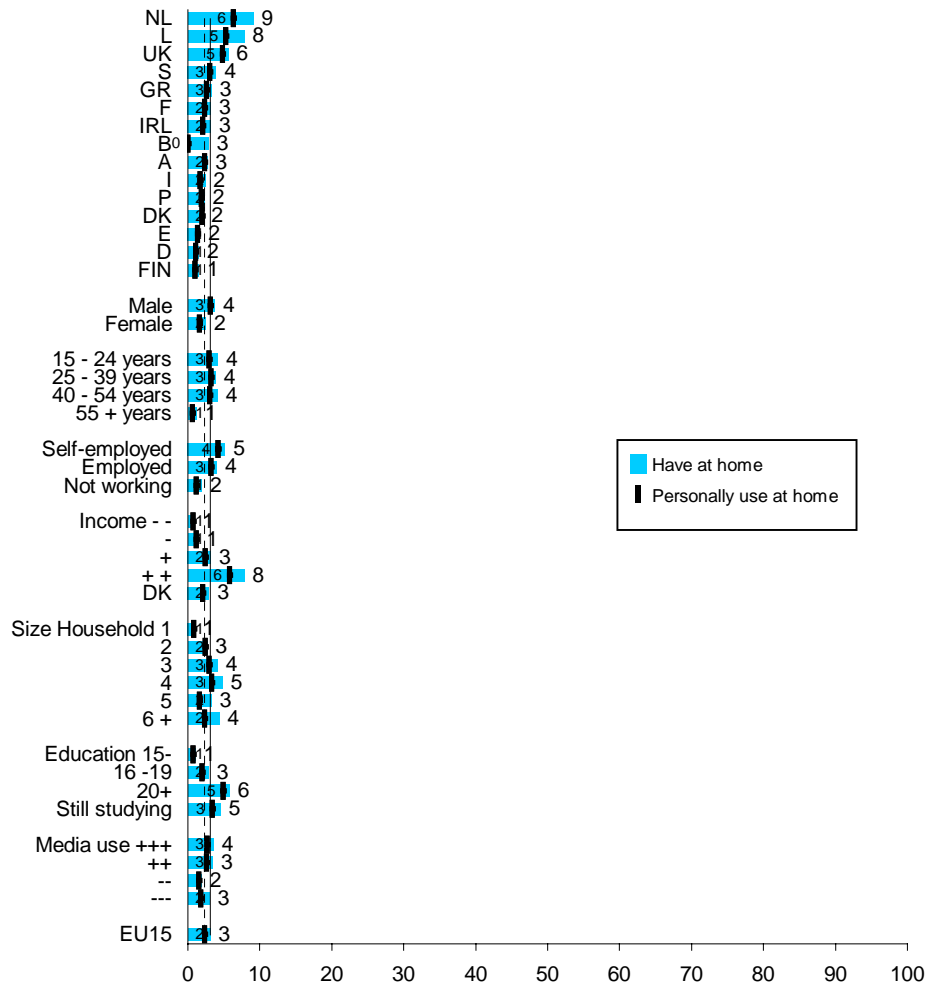


Base: all respondents (n=16,078)

Laptop computers are not widely spread, yet notably more in the Netherlands (18 per cent), and among those highly educated or still studying. The best predictor seem to be household income, with 14 per cent of highest income equipped with a laptop.

2.8. Palm computer or Personal organiser

Figure 9: Have / Use a palm computer or personal organiser at home

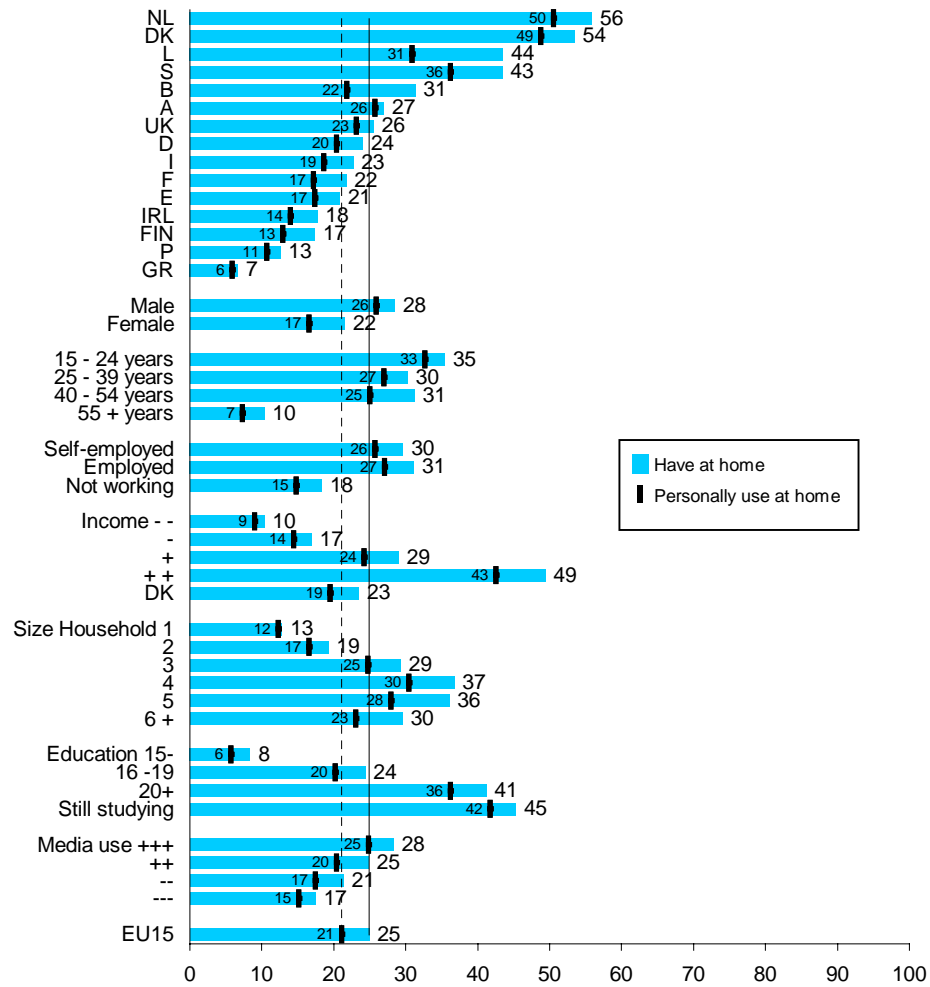


Base: all respondents (n=16,078)

Even more scarce than laptop computers, palm tops and personal organisers are only present in 3 per cent of European household. As for desktop and laptop computers, the Netherlands show the highest penetration level (9 per cent). Income and level of education are also key to owning such a device.

2.9. CD-ROM driver

Figure 10: Have / Use a CD-ROM driver at home

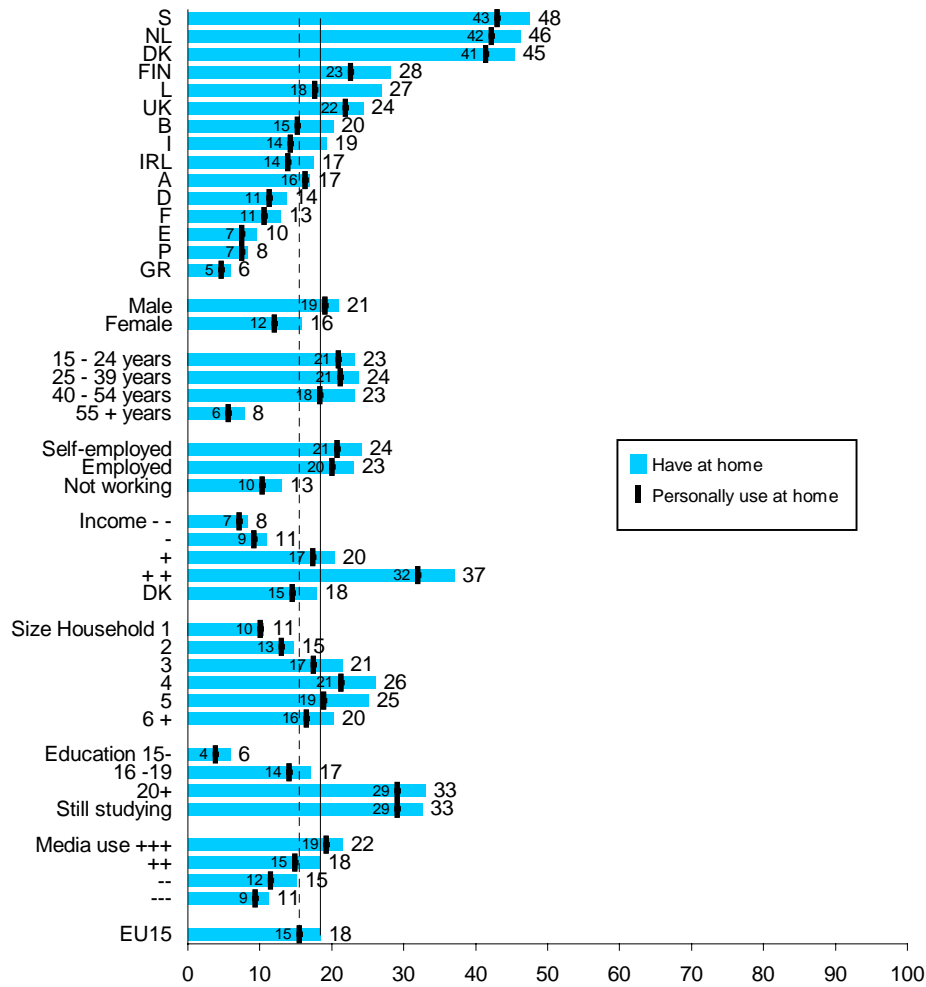


Base: all respondents (n=16,078)

Most observations made for desktop computers can be transposed to the CD-ROM drivers which, in addition, provides an indication of a qualitative assessment of the computers, as CD-ROM drivers are almost a standard feature on recent personal computers. On average, 25 per cent of the European households have a CD-ROM driver, while 35 per cent say they have a desktop computer, i.e. a ratio of about 70 per cent. That ratio varies considerably among countries within a range of less than 50 per cent in Greece to 85 per cent in the Netherlands.

2.10. Internet connection

Figure 11: Have / Use an Internet connection at home



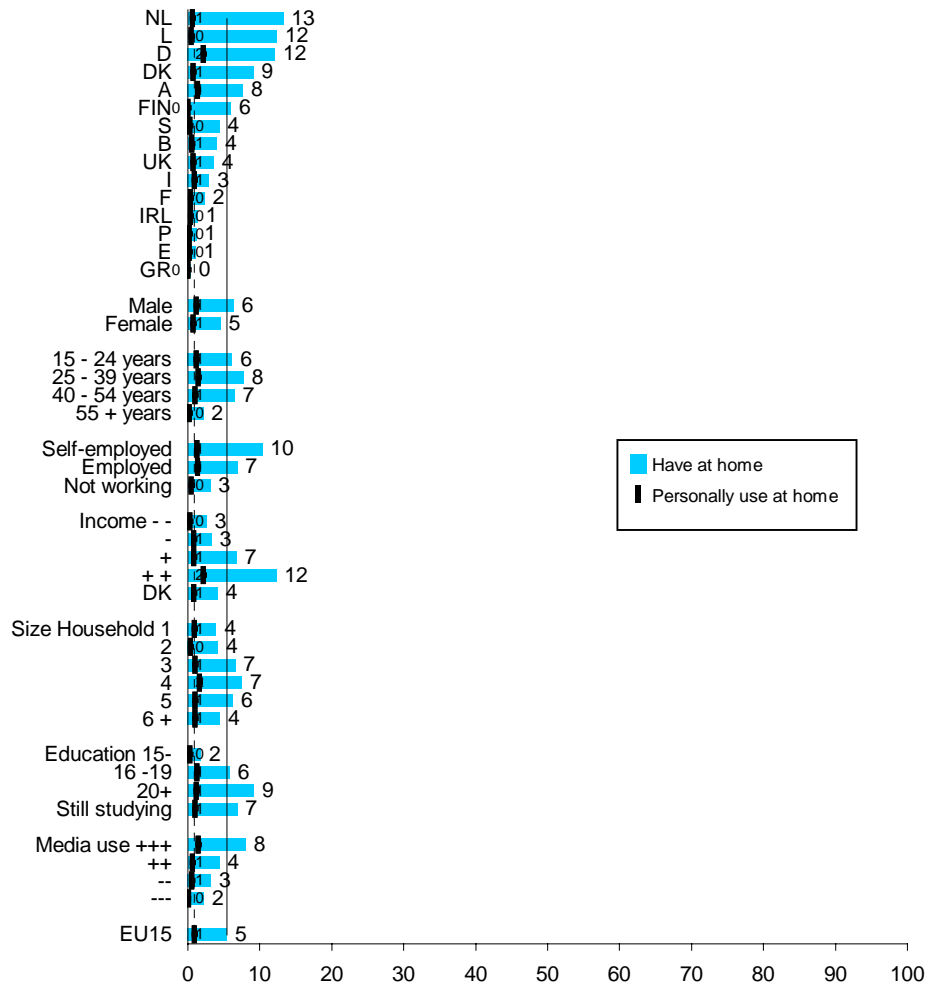
Base: all respondents (n=16,078)

A group of three countries (Sweden, the Netherlands and Denmark) stand out with particularly high levels of Internet connection at home (nearly 50 per cent). Southern European countries show significantly lower levels.

As for computers, older Europeans (55 years and over) are particularly resistant to having an Internet connection at home, as are those not working, with lower income and lower education. These are all classic markers of the ‘Digital divide’. Size of household also bears significant correlation with Internet connection, with larger household more likely to have one. A strong link with news media exposure is also noticeable.

2.11. ISDN Line

Figure 12: Have / Use an ISDN line at home

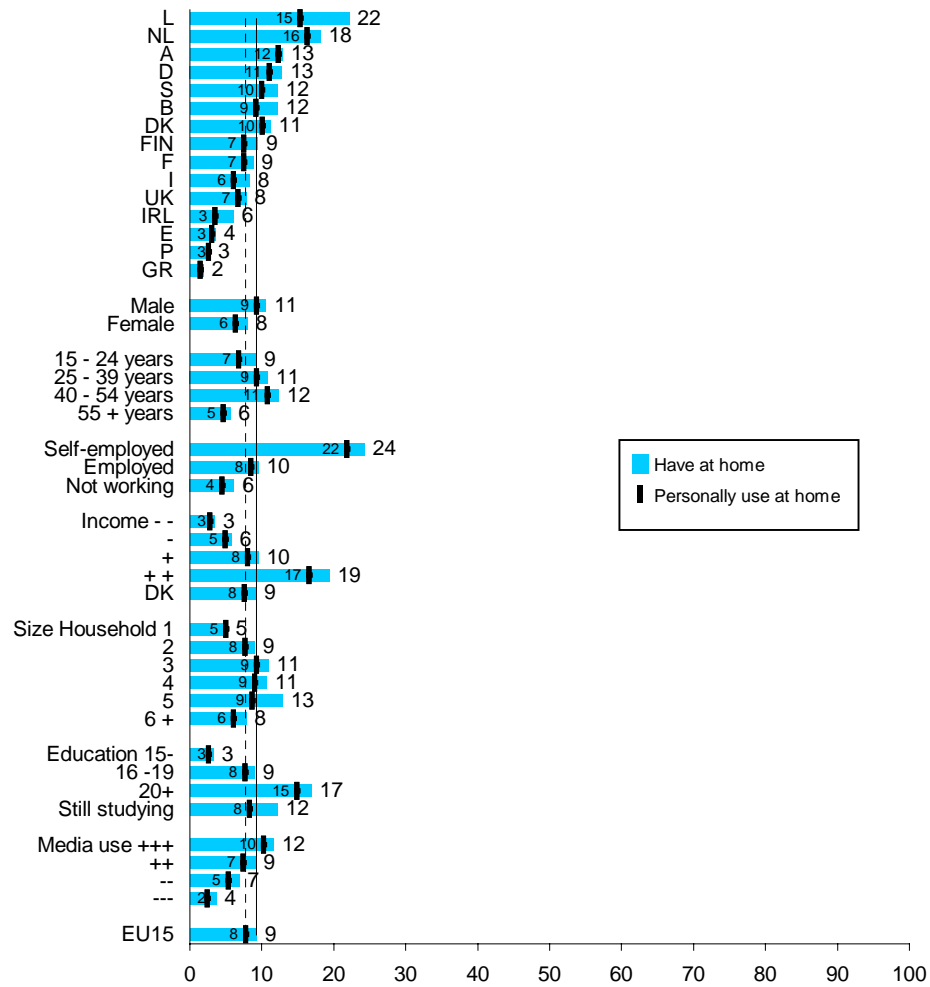


Base: all respondents (n=16,078)

ISDN seems much more successful in the Netherlands, Germany and Luxembourg, while it remains very marginal in Ireland, Portugal, Spain and Greece. Higher income and self-employed seem to resort significantly more to ISDN, as are news media heavy users.

2.12. Fax (stand alone)

Figure 13: Have / Use a stand alone fax at home

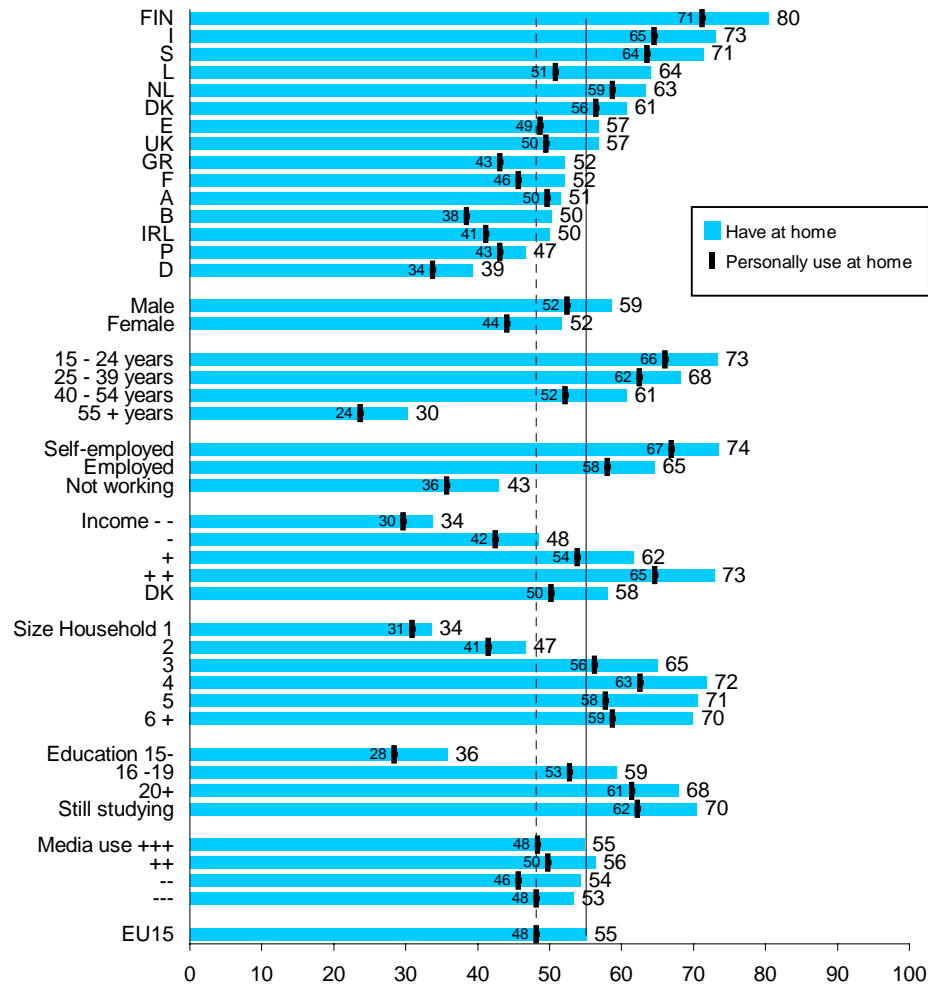


Base: all respondents (n=16,078)

Luxembourg and the Netherlands show significantly higher levels of penetration of faxes in homes. Not surprisingly, stand-alone faxes are particularly popular among self-employed (nearly one quarter on average in the European Union). Highest levels of education and income are also more keen to have a fax at home.

2.13. Mobile phone

Figure 14: Have / Use a mobile phone at home



Base: all respondents (n=16,078)

More than half of the European Union countries show more than 50 per cent of household having a mobile phone, with Finland now reaching 80 per cent, while Germany shows less than 40 per cent. Most demographic variables bring significant contrast. Proportions vary according to professional status: three quarter among self-employed, two thirds among employed and 43 per cent among those not working. Household income shows linear correlation between about one third of lowest income and three quarters of the highest. Larger households are also more likely to have a mobile phone. Level of education also shows a strong positive correlation.

2.14. Inter-group disparities

The use of each technology appears to follow varied patterns among social-demographic groups. Some technologies prove more disparate among groups than others, some social-demographic variables bring more or less contrast among its groups. In order to assess inter-group disparities for the different technologies and for the different social-demographic

variables, a measure of dispersion was processed¹ for inter-group disparities for the use of technologies variables. The table was diagonalised following row and column average disparities.

Figure 15: Inter-group disparities

	Countries (15)	Income (4)	Education (4)	Age (4)	Occupat. (4)	Size hhold (6)	Media use (4)	Gender (2)	Average
ISDN Line	92	70	42	48	40	38	71	25	53
Palm computer	66	79	58	43	44	37	24	32	48
Laptop computer	62	86	63	38	35	20	52	24	48
Fax (stand alone)	53	65	52	30	64	21	45	19	44
Internet connection	64	60	56	39	28	23	27	23	40
Game Console	37	26	60	72	19	45	29	25	39
CD-ROM driver	53	57	54	41	24	28	19	22	37
Desktop PC	41	49	50	39	24	27	13	17	32
DVD player	42	46	40	36	22	29	14	16	31
Digital TV	64	56	21	33	23	33	3	12	31
Satellite dish	74	24	13	14	12	18	20	7	23
Mobile phone	20	27	27	33	25	22	3	9	21
Cable Television	62	5	12	5	10	15	24	1	17
Average	56	50	42	36	28	27	26	18	36

(Variation coefficients, in per cent)

This table shows (last column to the right) that cable television is the used most homogeneously across all groups (similar proportions in all groups), while ISDN lines use is most contrasted (maximum disparities among groups). Note that this factor gives no indication as far as the level of penetration. Therefore, a low disparity factor is not synonymous with universality. As an example, cable television shows a lower disparity than mobile phones, while the latter is more widely used..

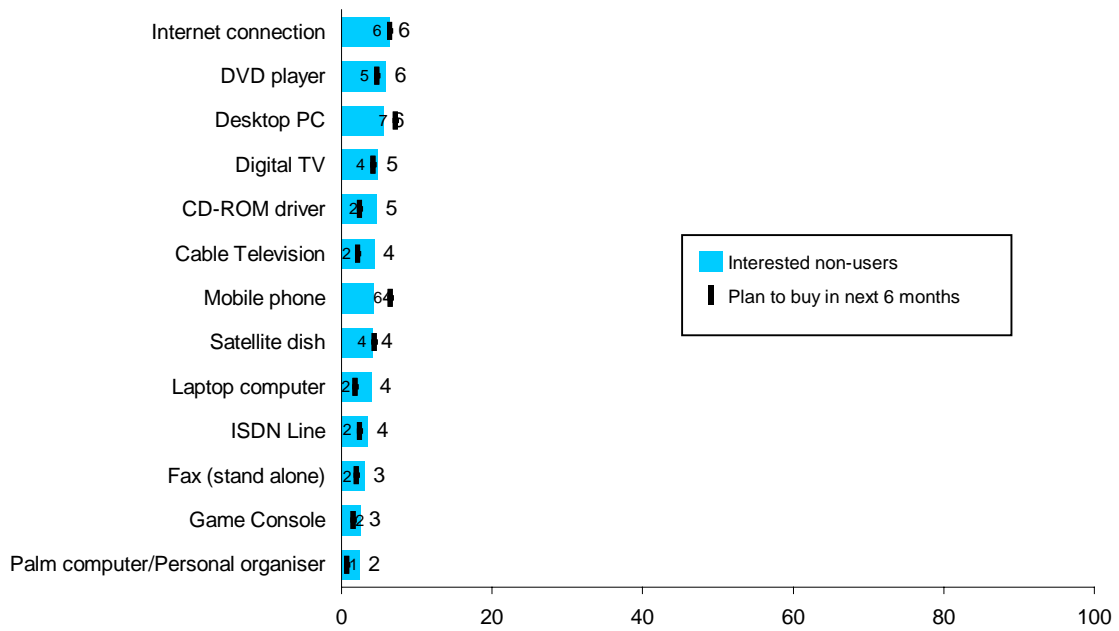
Likewise, the table shows (last row) that gender is, on average, the least discriminating variable, while countries, income and terminal education age are the most significant sources of disparities. This would indicate strong and distinctive national practices and habits, and traces of a complex social divide based on income and level of education.

¹ In order to optimise comparisons, a variation coefficient was used, defined as the standard deviation divided by the average. Variation coefficients are in per cent.

3. INTEREST AND INTENTION TO PURCHASE

Non users of the various technologies were asked whether they were *interested* in these technologies. Moreover, respondents were asked whether they were planning to purchase any of the technologies in the next six months. The following section describes the results of these two sets of questions.

Figure 16: Technologies that non-users are interested in and that respondents plan to purchase in the next six months

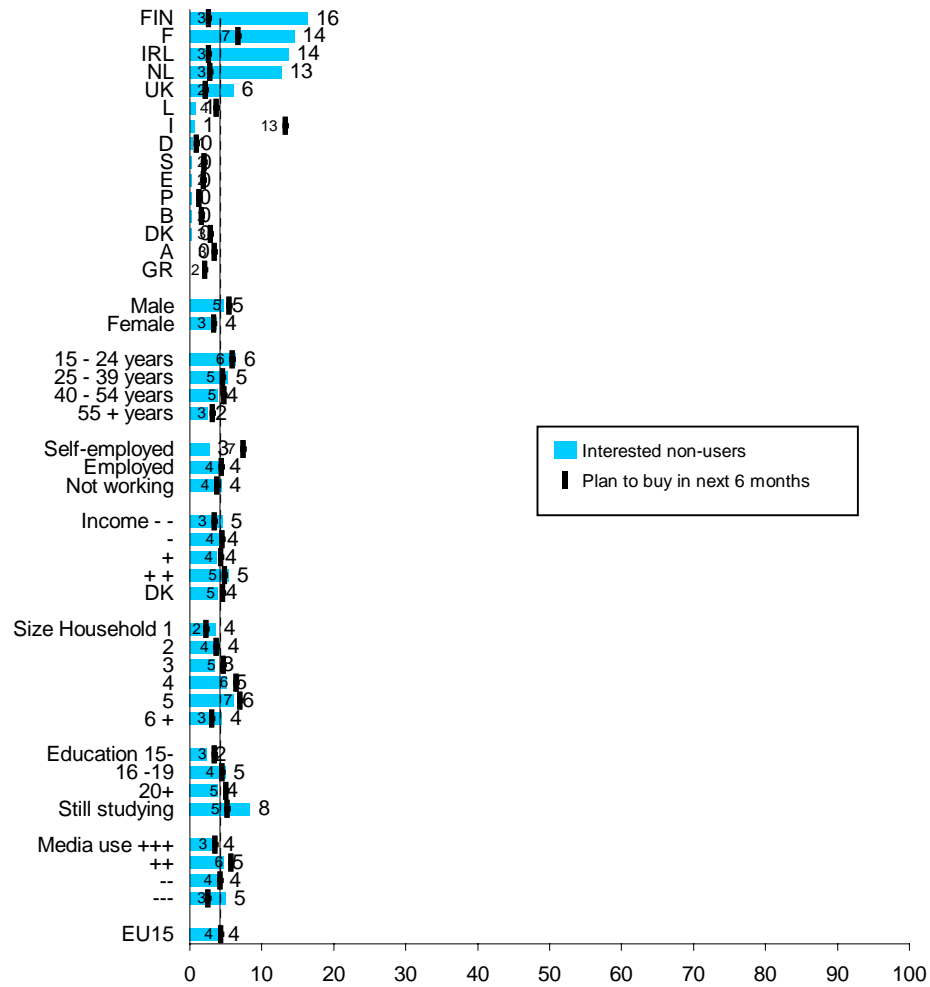


Base: all respondents (n=16,078)

All in all, Internet connection, DVD players and personal computers are the technologies that non-users are most interested in and, likewise, that respondents plan to purchase in the next six months. Note that mobile phones also rank among the technologies most likely to be bought in the next six months.

3.1. Satellite dish

Figure 17: Non users, interested / Plan to buy a satellite dish at home

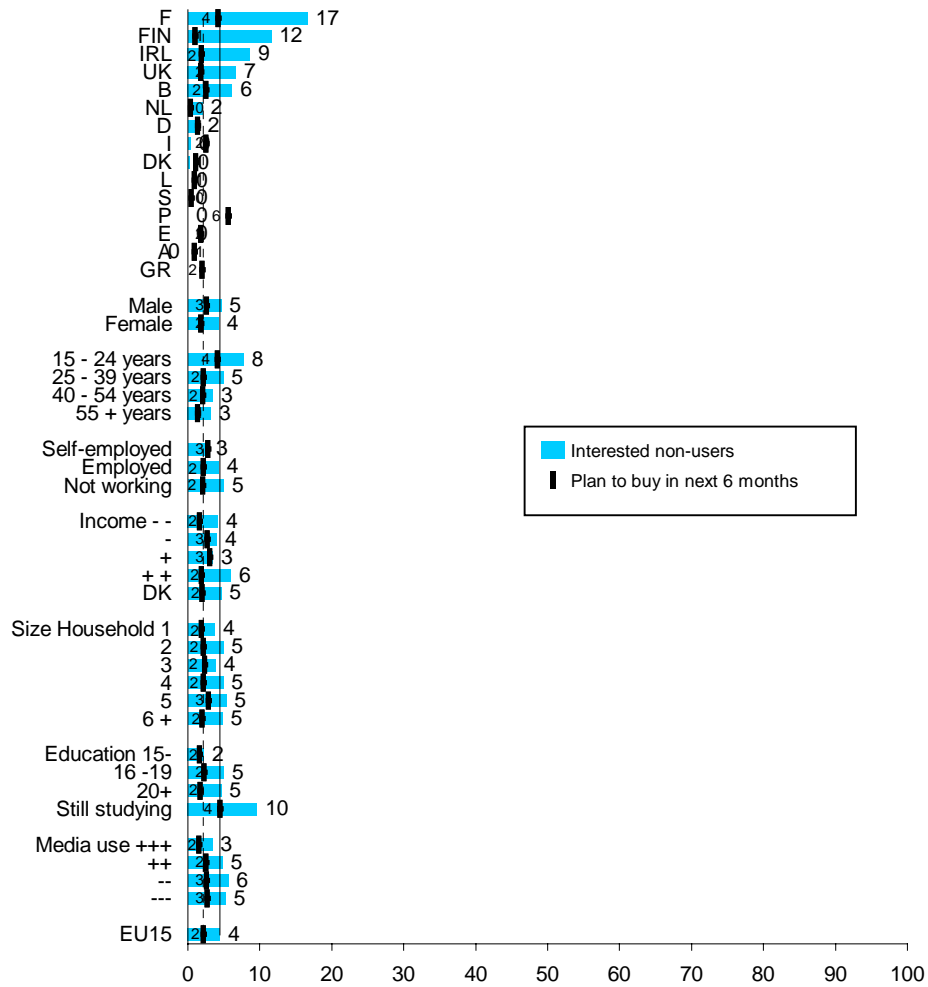


Base: all respondents (n=16,078)

Satellite dishes raise very contrasted interest among European countries. About 15 per cent of Finnish, French, Irish and Dutch respondents claim interest in satellite dishes; that proportion falls to 6 per cent in the United Kingdom and is not significant in all other countries. The size of the household seems to have a considerable impact on the interest for satellite dishes (larger families are more likely to be interested), as does age and education (maximum interest among respondents who are younger, still studying).

3.2. Cable television

Figure 18: Non users, interested / Plan to buy cable television at home

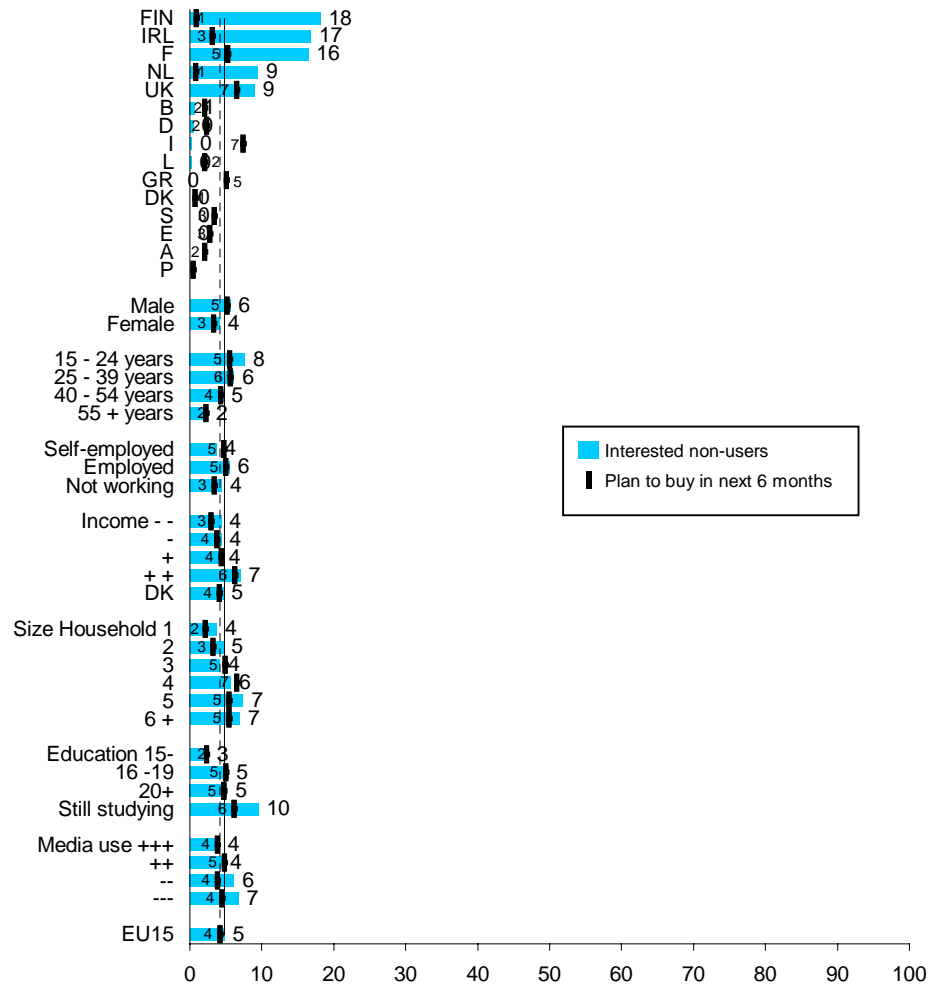


Base: all respondents (n=16,078)

Cable television shows a profile strikingly similar to that of satellite dishes, with a lesser impact of household size.

3.3. Digital TV (subscription)

Figure 19: Non users, interested / Plan to buy digital television at home

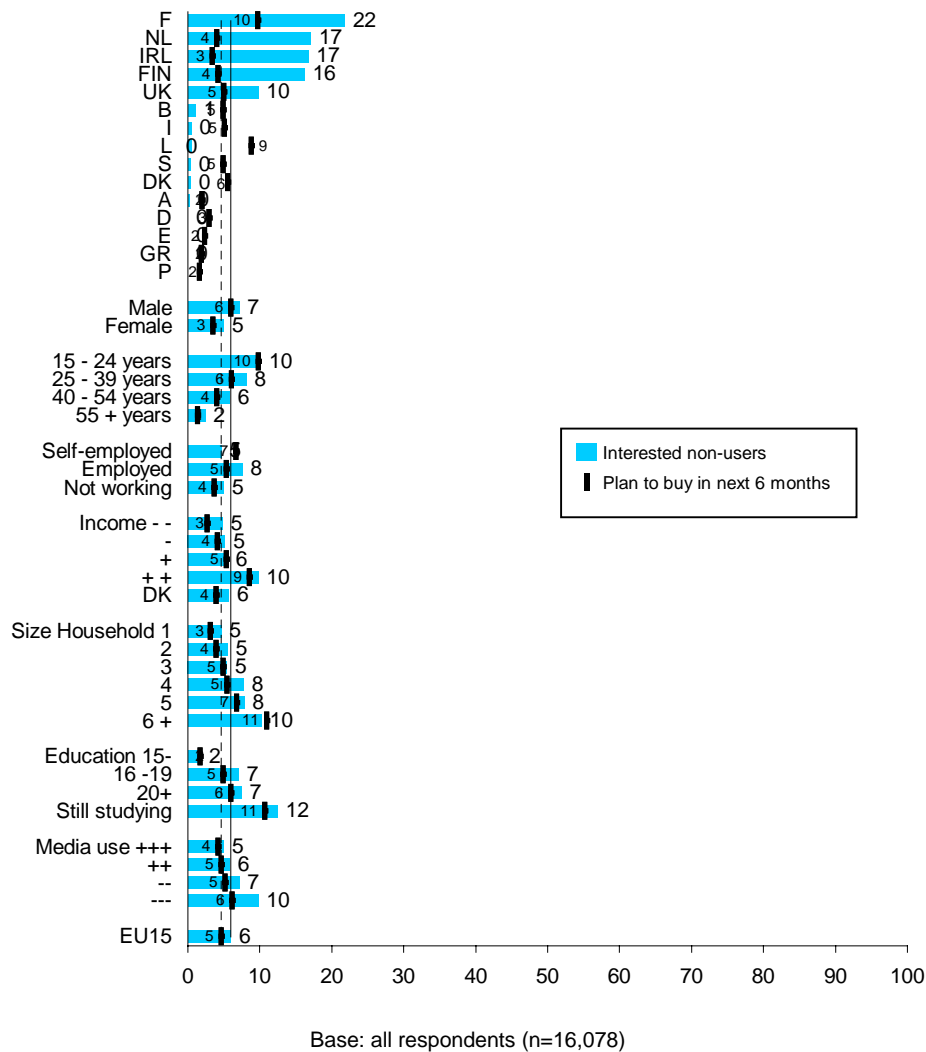


Base: all respondents (n=16,078)

Finland, Ireland and France are, by far, leading the rest of the European Union as regards the interest for subscription to digital television, as was the case for cable television and satellite dishes. Age, education, size of household and income are key variables to interest in this technology.

3.4. DVD player (connected to television)

Figure 20: Non users, interested / Plan to buy a DVD player at home



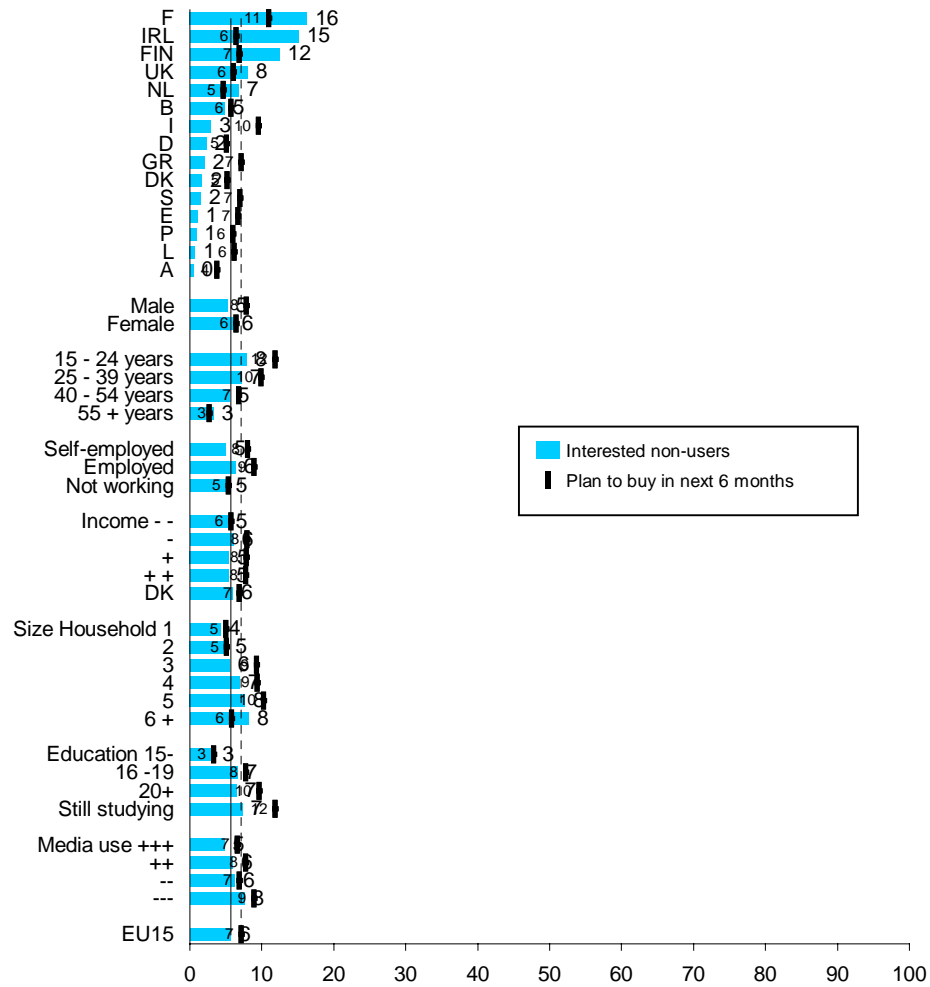
As observed for the television related technologies, France, the Netherlands, Ireland, Finland and the United Kingdom spectacularly stand out for their interest in DVD players. Most demographic variables reveal contrasted values, thus suggesting a relatively clearly defined target segment of young males, still studying, with upper income, living in large households and light users of news media, and preferably living in one of the five countries mentioned above.

3.5. Game console

Interest for game consoles is scarce (less than 3 per cent on average) to the point where demographic break downs would loose most of their relevance. It can be noted that interest is above average in Ireland, Finland and France and, unsurprisingly among youngsters living in large households.

3.6. Desktop computer

Figure 21: Non users, interested / Plan to buy a desktop computer at home

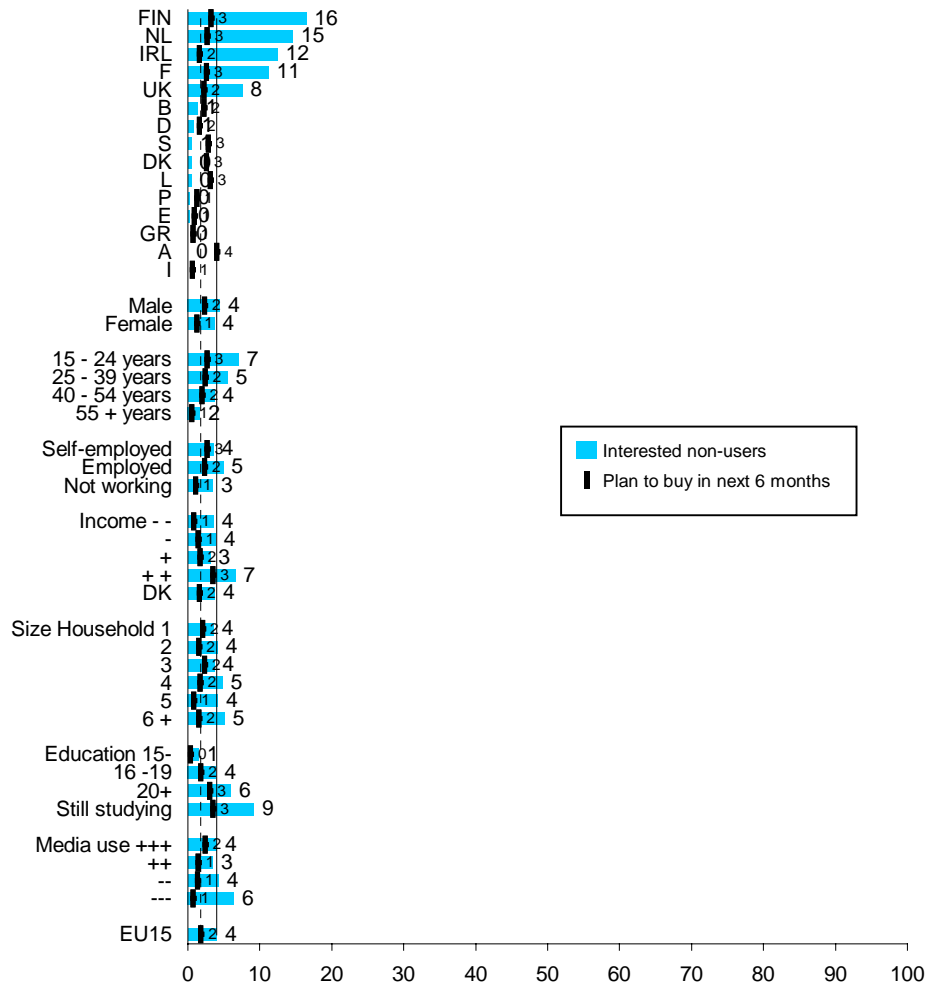


Base: all respondents (n=16,078)

Over 5 per cent of all respondents are planning to buy a personal computer in the next six months. France, Ireland and Finland show the higher proportions of such interest, as do respondents who are younger and still studying, with no significant correlation with household income.

3.7. Laptop computer

Figure 22: Non users, interested / Plan to buy a laptop computer at home



Base: all respondents (n=16,078)

Finland, the Netherlands, Ireland, France and the United Kingdom show above average levels of interest for laptop computers. Age, education and income are key variables to interest in this technology.

3.8. Palm computer or Personal organiser

Interest for palmtop computers is quite marginal in Europe (just over 2 per cent on average). It is significantly higher in the Netherlands and Ireland (10 per cent), as well as in Finland (8 per cent), France (6 per cent) and the United Kingdom (5 per cent). Highest intentions to purchase are found in the Netherlands and among upper income (2 per cent).

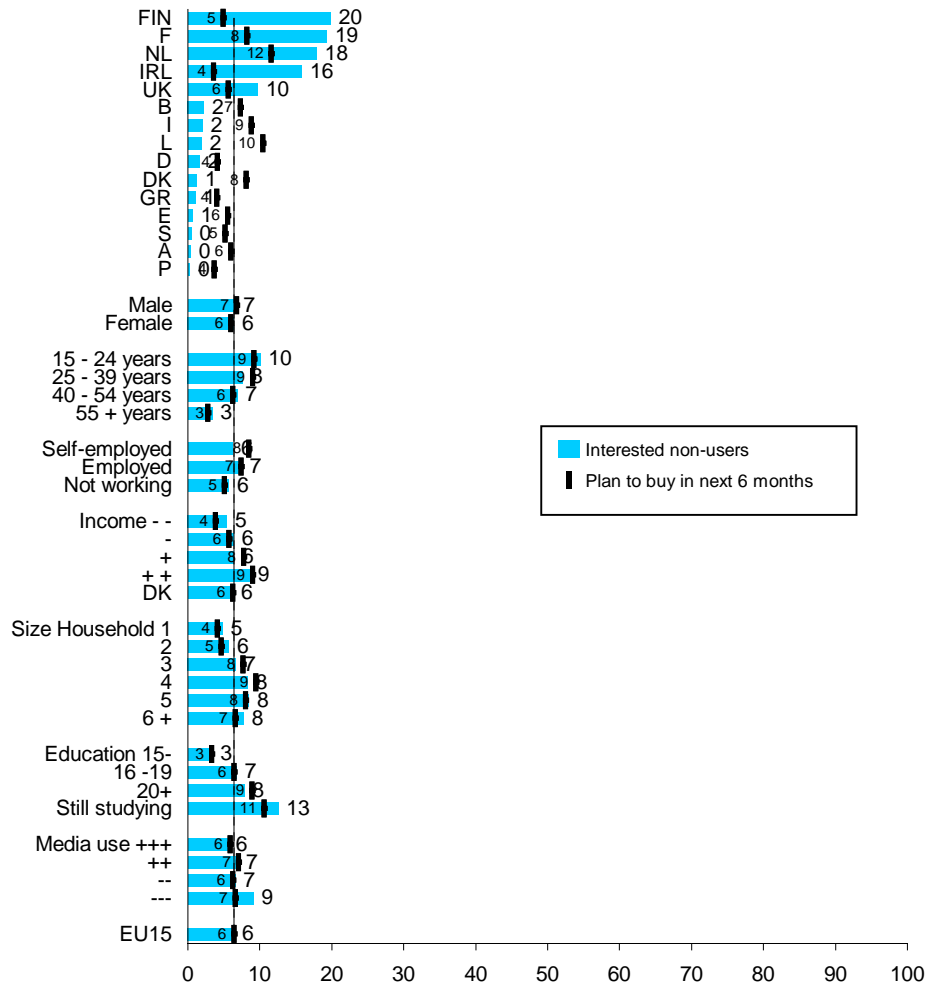
3.9. CD-ROM driver

Relatively low interest for CD-ROM drivers (5 per cent) and even lower intentions to purchase (2 per cent) can be explained by the fact that this device has become relatively

standard with most personal computers. Interest is significantly higher in France (16 per cent), Finland (15 per cent), Ireland (11 per cent) and the Netherlands (9 per cent).

3.10. Internet connection

Figure 23: Non users, interested / Plan to buy an Internet connection at home



Base: all respondents (n=16,078)

Interested non-users of an Internet connection are particularly numerous in Finland, France, the Netherlands and Ireland. Six per cent of Europeans plan to purchase in Internet connection in the next six months. That proportion tops at 12 per cent in the Netherlands. Age, income and education appear to be key predictors, along with size of household.

3.11. ISDN Line

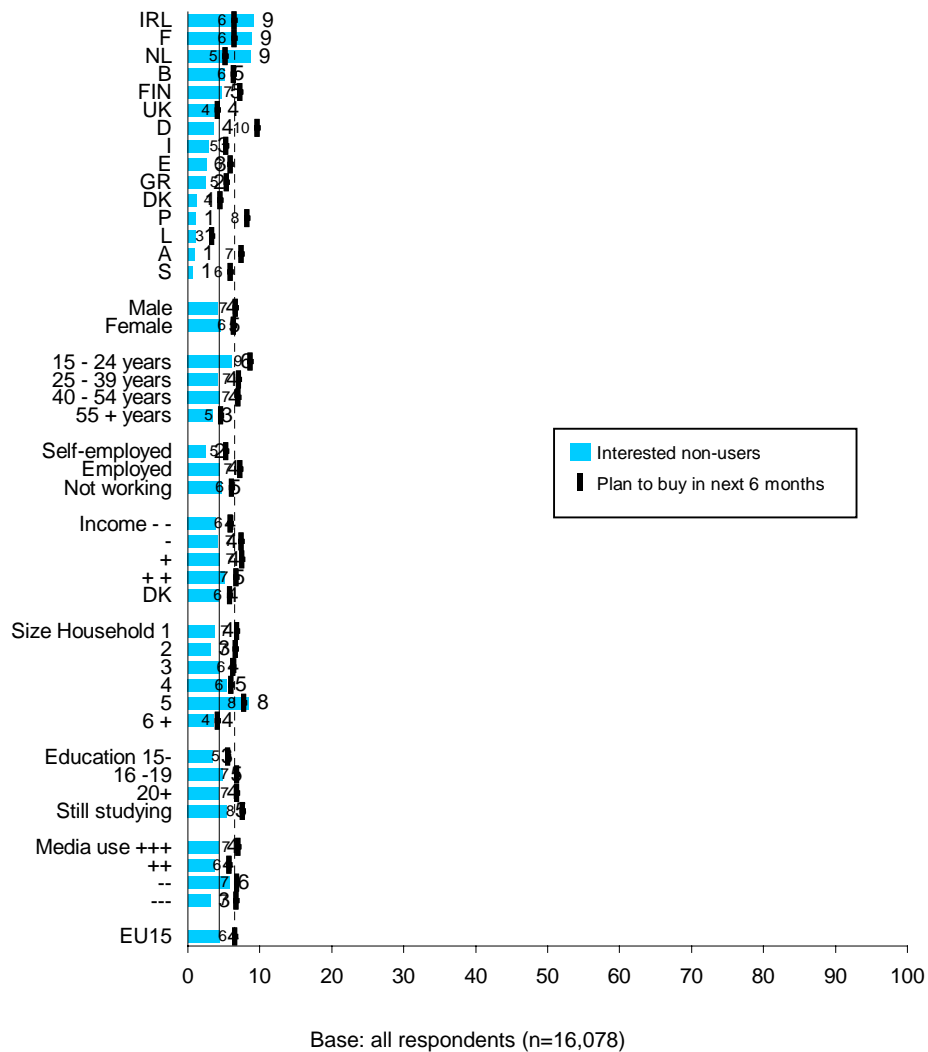
Less than 5 per cent of Europeans show interest in an ISDN line, with significantly higher levels in the Netherlands and Finland, and among higher income households.

3.12. Fax (stand alone)

Stand alone faxes raise little interest among Europeans at large (3 per cent of interest and 2 per cent of intentions to purchase within six months). Students and self-employed, high incomes and large households show slightly more interest than average.

3.13. Mobile phone

Figure 24: Non users, interested / Plan to buy a mobile phone at home



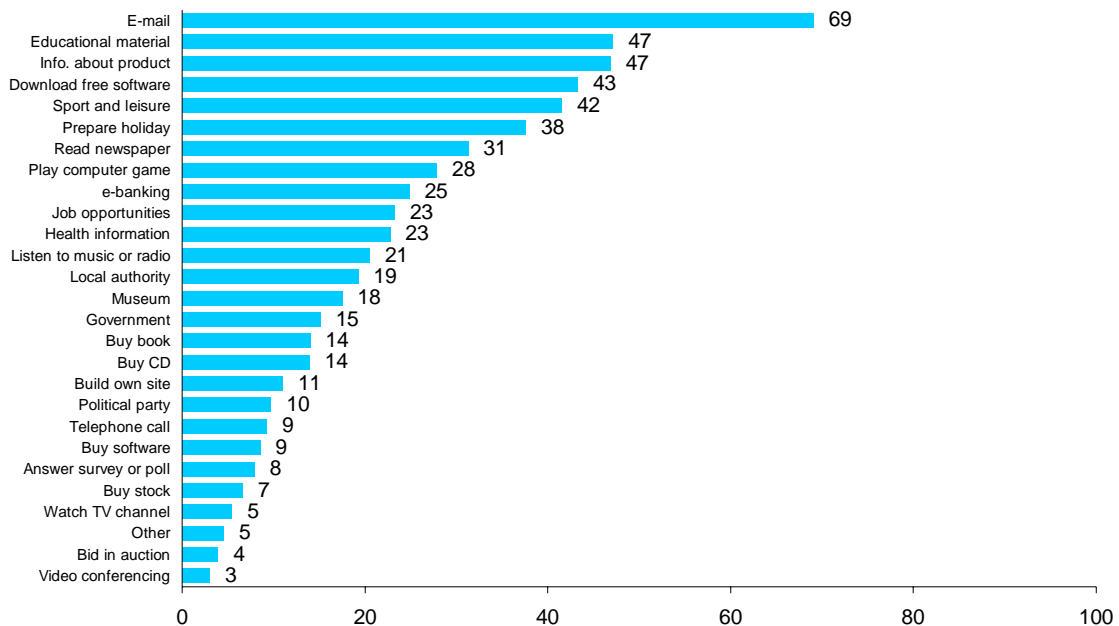
Interest in mobile phones shows very little contrast on all demographic variables. Values slightly above average can be observed among respondents who are younger, live in large households. Ireland, France and the Netherlands also show significantly higher interest (about 9 per cent).

4. THE USE OF INTERNET

4.1. Applications in the past three month

Internet users were asked which applications they have used in the past three months. Considering all internet users among respondents in the entire European Union, the different applications show penetration figures as follows.

Figure 25: Internet applications in the past three months



Base: Internet users (n=3,069)

Electronic mail is by far the most popular on-line application (over two thirds of Internet users have e-mailed family, friends or colleagues in the past three months). Nearly one Internet user in two searches either educational material and documents or information about a specific product. Internet is used for searching job opportunities by nearly a quarter of the Internet users, and about the same proportion seek information concerning health.

Entertainment and leisure also appear to be popular on-line: 42 per cent of users search information about sport and leisure activities, 38 per cent prepare their holidays, 28 per cent play computer games, 17 per cent visit museum sites.

Some commerce and finance related applications are more widespread than others: one Internet user in four carries out operations a bank account, 14 per cent buy books, 14 per cent buy CDs, 9 per cent buy software (while 43 per cent download free software), 7 per cent buy stocks or shares, 4 per cent make bids in on-line auctions.

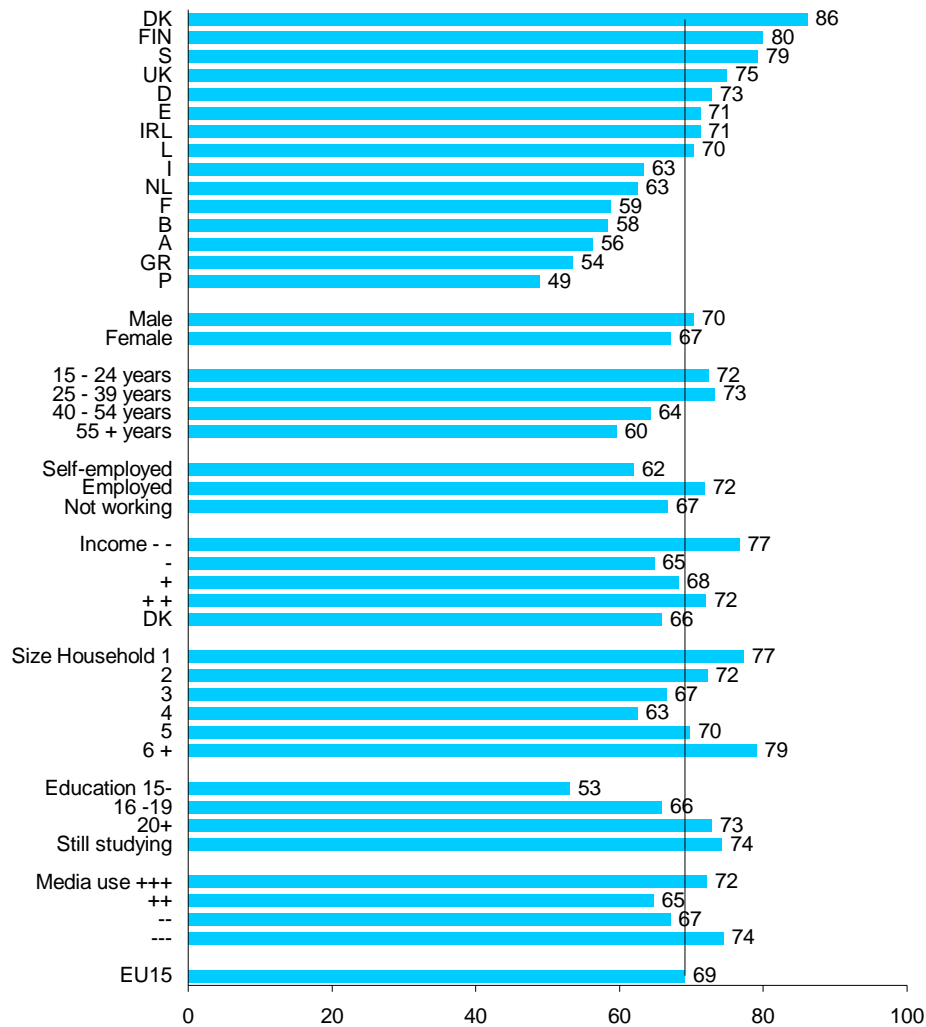
Public authorities are of significant interest to a number of Internet users: 19 per cent visit sites of local authorities, 15 per cent a site of the government, 10 per cent of a political party.

On-line media seem to meet contrasted success: while nearly one third of Internet users say they have read articles on web sites of national newspapers, 20 per cent listened to radio or music on the Internet, and only 5 per cent watched television channels on-line.

Applications used by at least 15 per cent of the Internet users are analysed hereafter. Users of applications showing lower penetration levels cannot be accurately studied beyond the European averages for the reason that error margins associated with small sample sizes are too wide.

4.1.1. Electronic mail

Figure 26: “E-mailed family, friends or colleagues” in the past three months

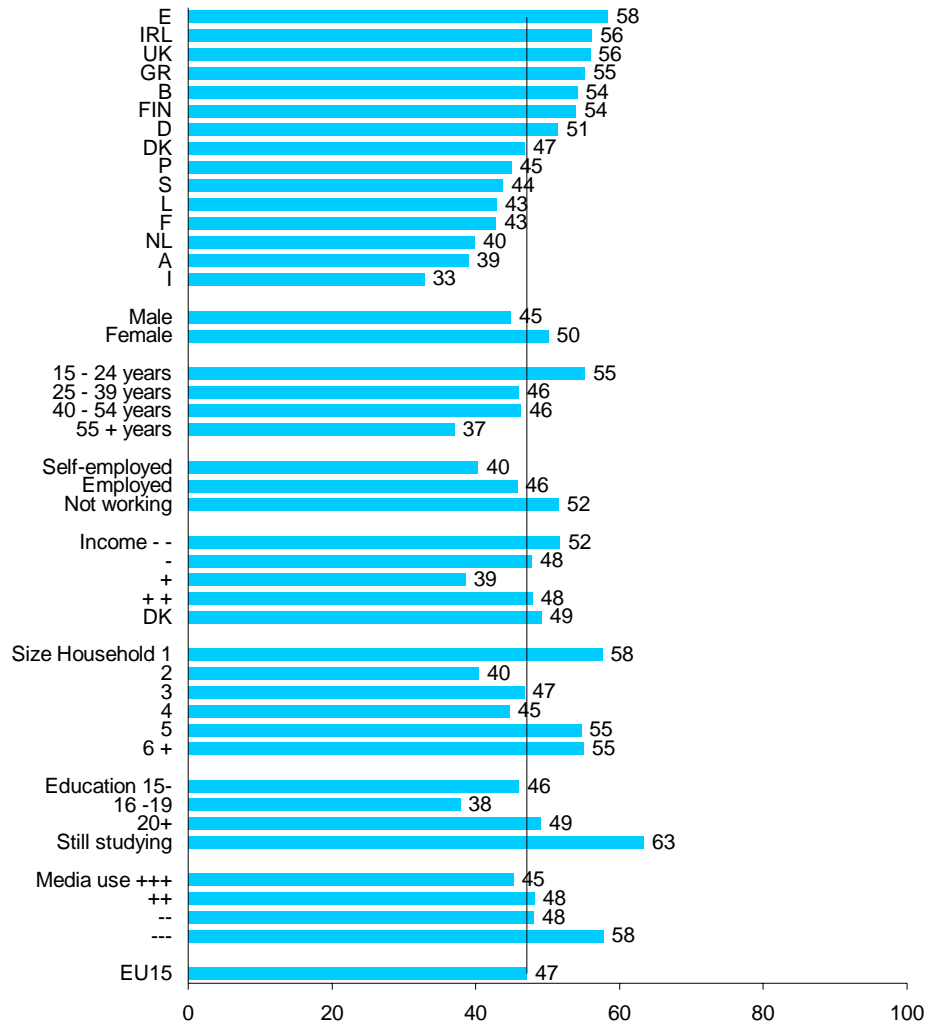


Base: Internet users (n=3,069)

Two thirds of European Internet users practice electronic mailing. Scandinavians are most fond, as are 15-39 year, lowest income, smallest and largest households and students.

4.1.2. Educational material and documents

Figure 27: “Searched for educational material and documents” in the past three months

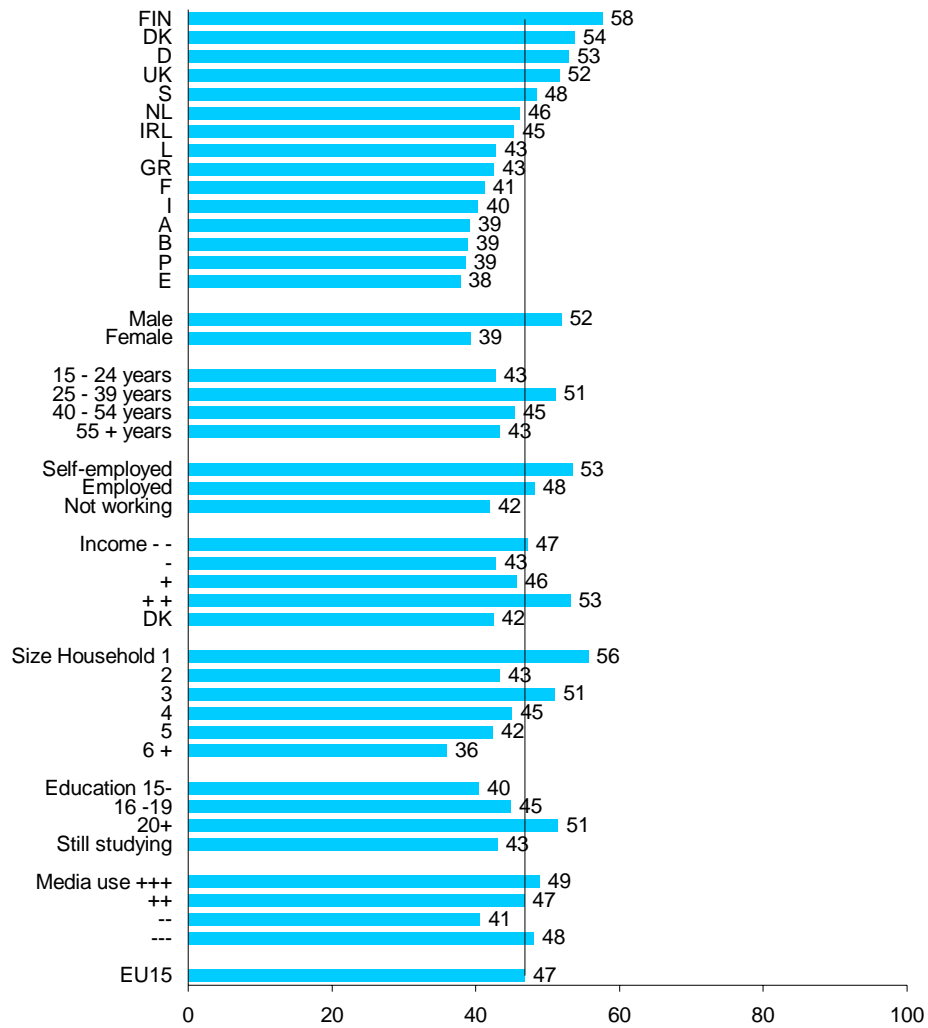


Base: Internet users (n=3,069)

Students clearly appear to be using most heavily the Internet for searching educational material and documents. Also note the significantly above average value among those least resorting to news media.

4.1.3. Information about a specific product

Figure 28: “Searched for information about a specific product” in the past three months

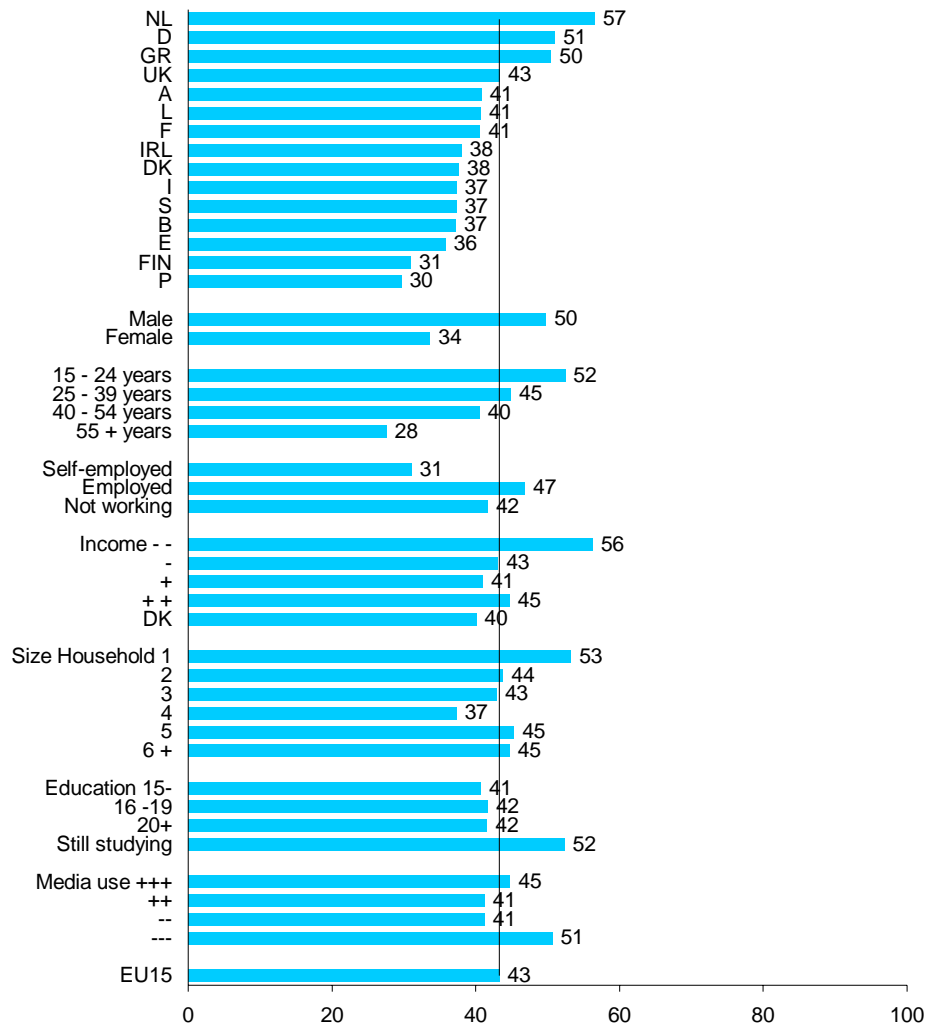


Base: Internet users (n=3,069)

Searching information about a specific product seems more widespread among males, 25-39 years, self-employed, higher income and higher education.

4.1.4. Download free software

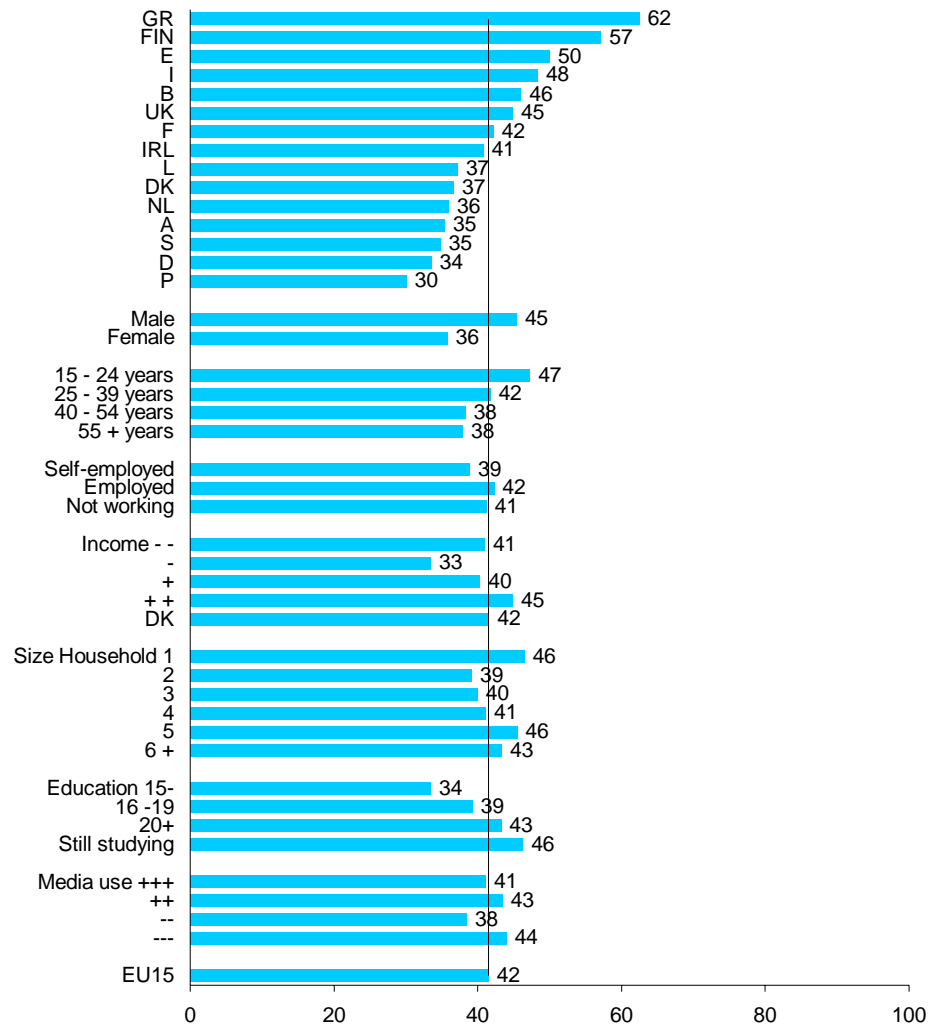
Figure 29: “Downloaded free software” in the past three months



Base: Internet users (n=3,069)

4.1.5. Sport or leisure activities

Figure 30: “Searched for information on sport or leisure activities” in the past three months

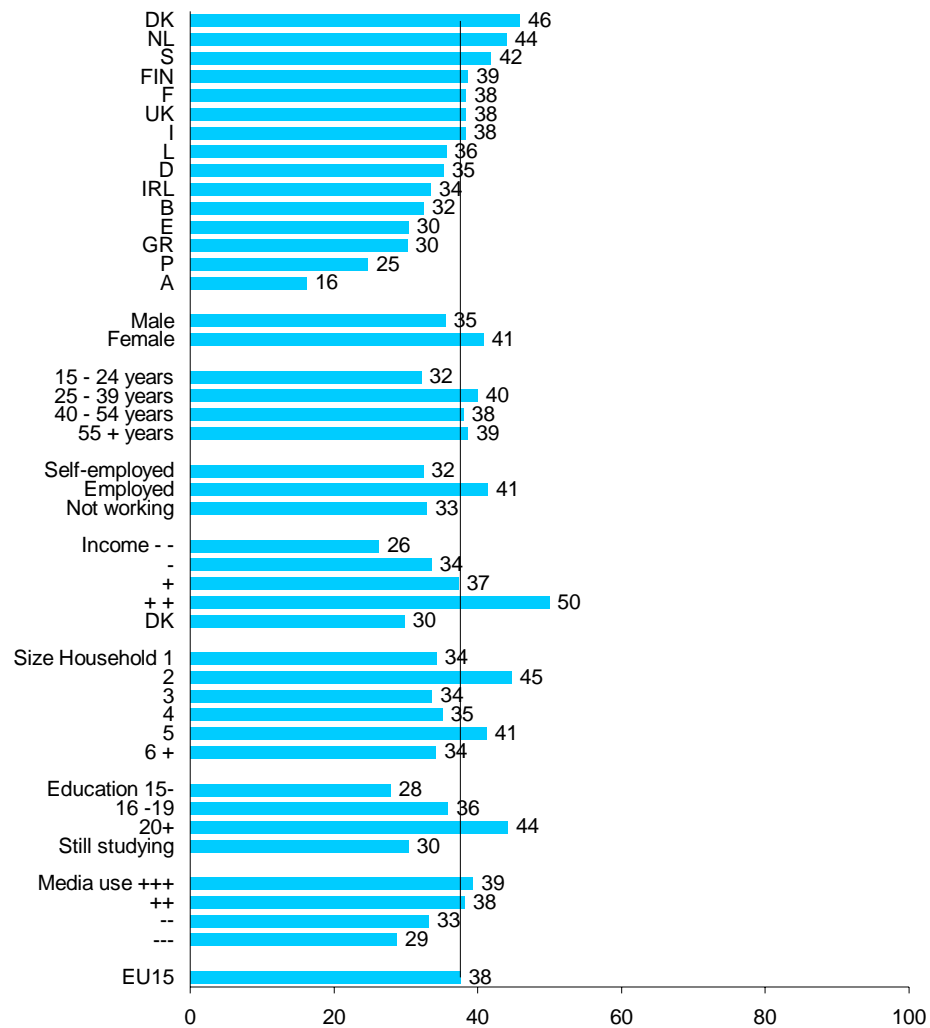


Base: Internet users (n=3,069)

Internet is more a source of information about sport and leisure activities particularly among men, below 25 years and still studying.

4.1.6. Holidays

Figure 31: “Prepared or considered a holiday by searching for places to visit, accommodation, etc.” in the past three months

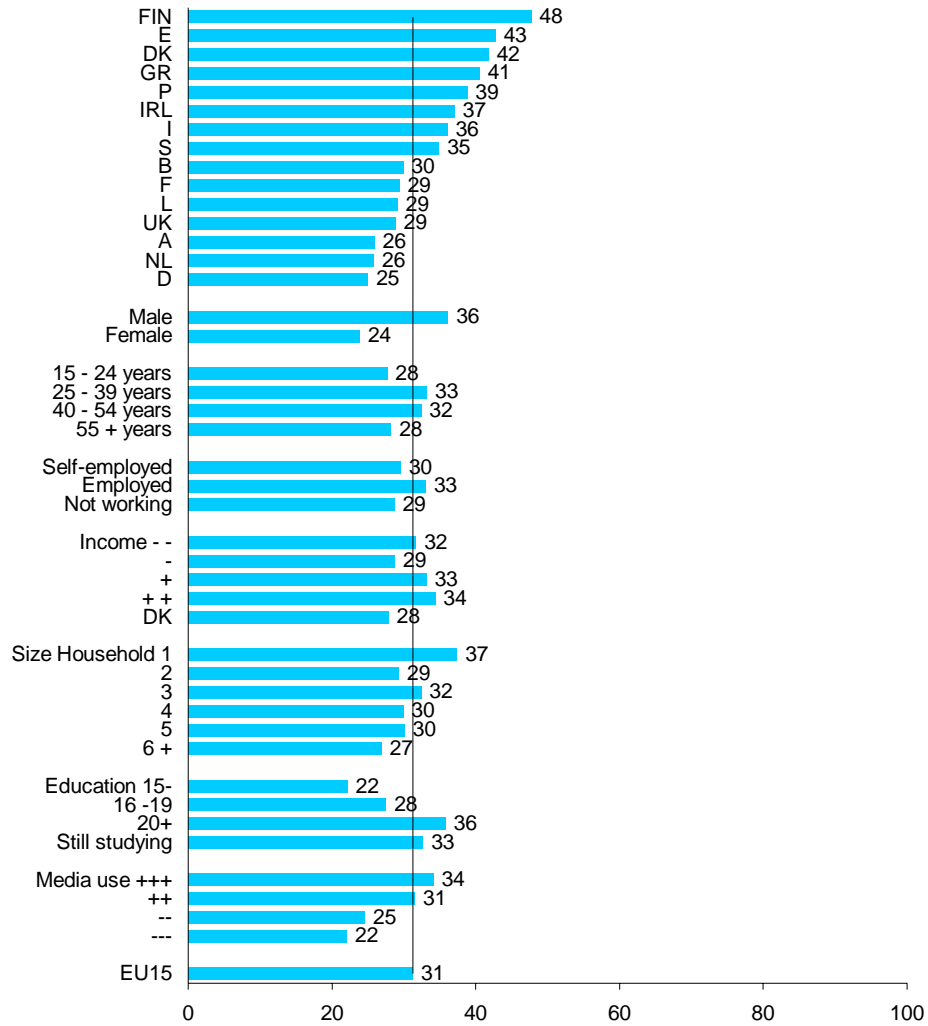


Base: Internet users (n=3,069)

Holiday preparation using the Internet is significantly more common among highest income and highest education groups.

4.1.7. Read national newspapers on-line

Figure 32: “Read articles on the web sites of national newspapers” in the past three months

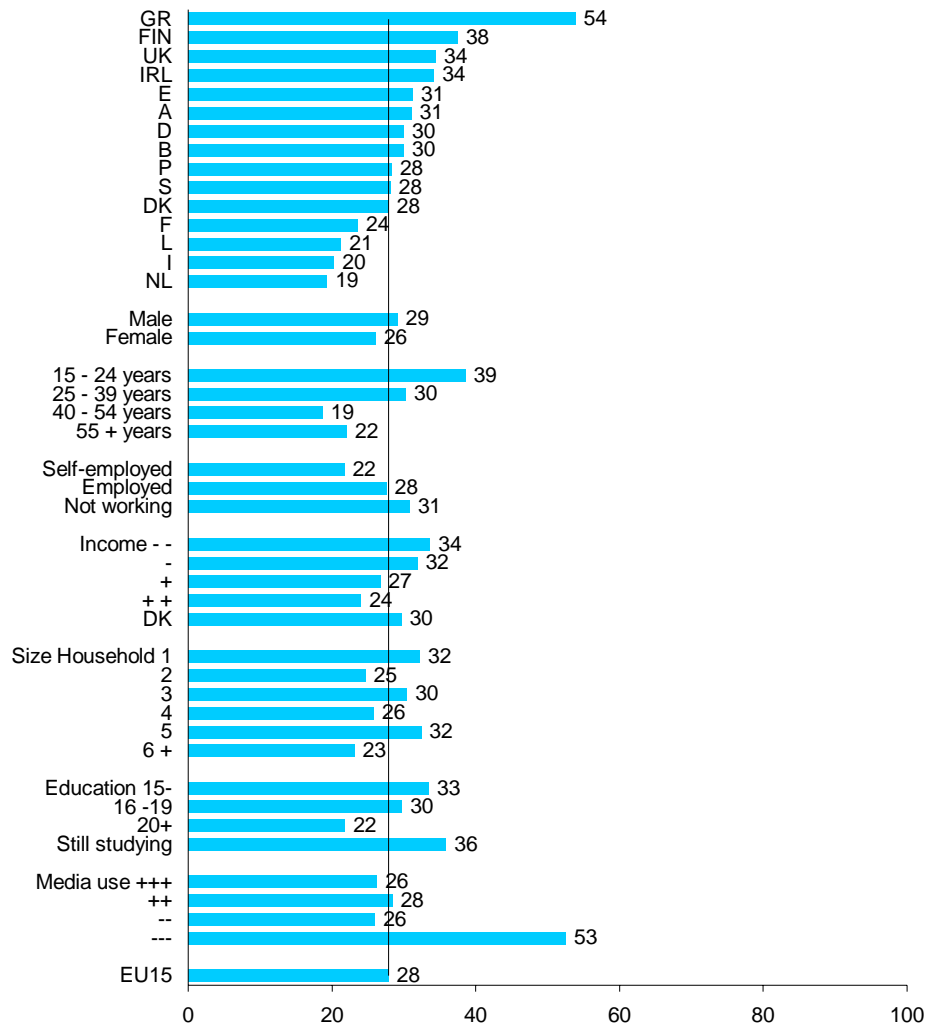


Base: Internet users (n=3,069)

Significantly more men than women read national newspapers online, as do single households, best educated and heavy news media users.

4.1.8. Play computer games on-line

Figure 33: “Played computer games on-line” in the past three months

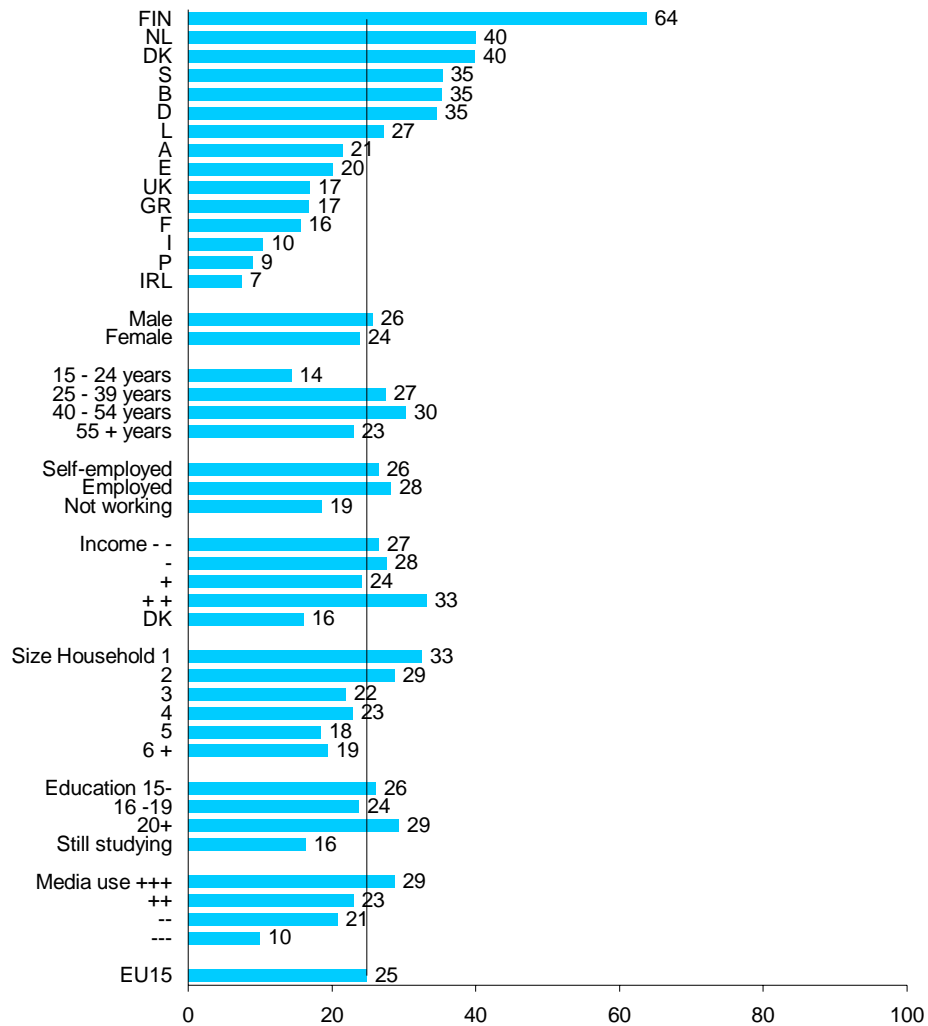


Base: Internet users (n=3,069)

Greek Internet users are, by far, most fond of online computer games. Younger and less educated segments also appear above average. Online gamers are almost twice above average among those resorting the least to news media.

4.1.9. Electronic banking

Figure 34: “Carried out operations on my bank account” in the past three months

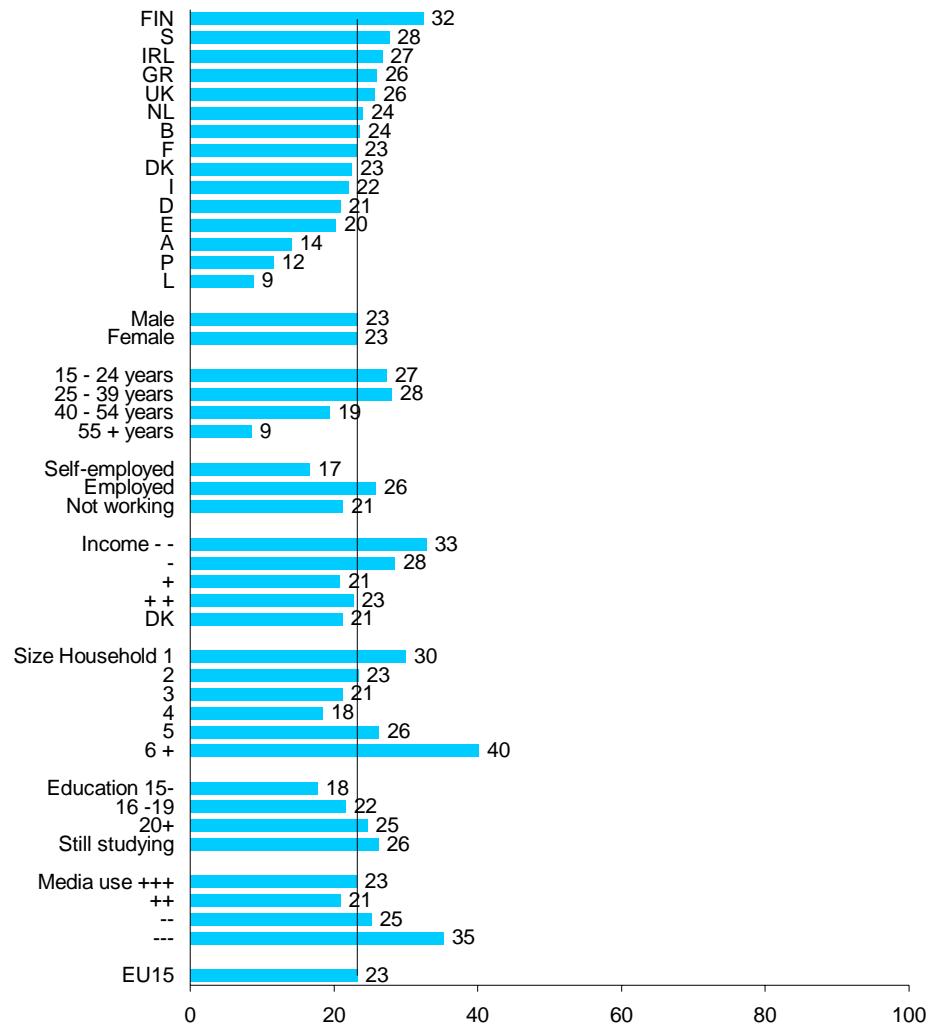


Base: Internet users (n=3,069)

One European Internet user in four resorts to electronic banking. There appears to be quite varied national practices: nearly two thirds of Finnish Internet users carry out operations on their bank account, while only 10 per cent or less do so in Italy, Portugal and Ireland. This application is significantly more popular among 25-54 years, higher incomes, smaller households and heavier users of news media.

4.1.10. Job hunting

Figure 35: “Searched for job opportunities” in the past three months

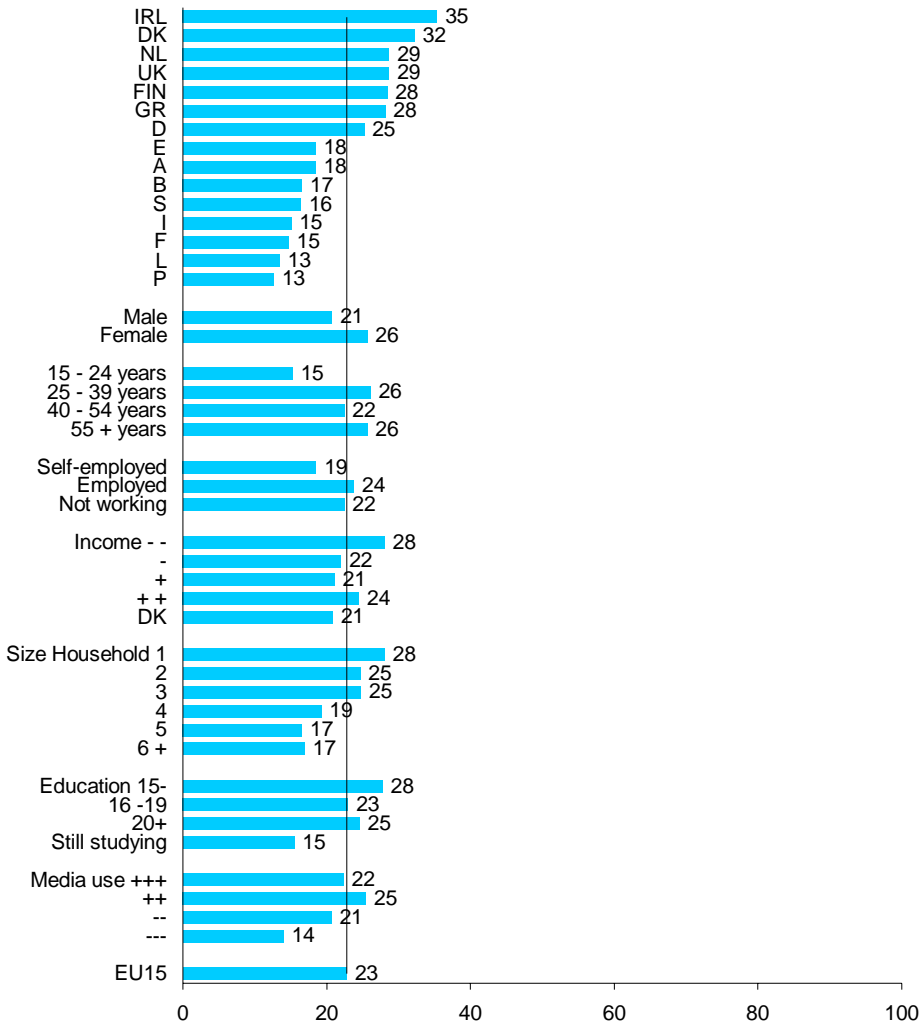


Base: Internet users (n=3,069)

Job hunting on the Internet is most popular among 15-39 years, lower incomes, single or largest households and news media light users.

4.1.11. Health information

Figure 36: “Searched for information which concerns my health” in the past three months

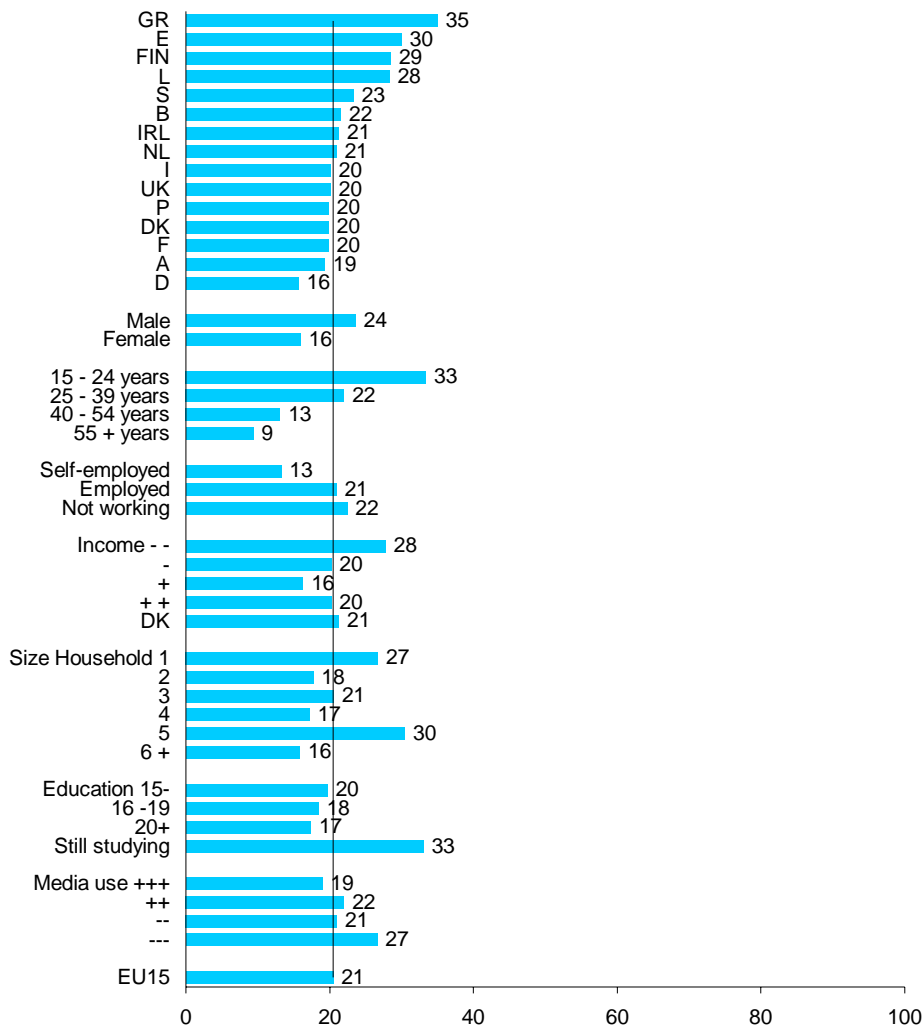


Base: Internet users (n=3,069)

Information about one's health appears to be more of a concern among women, over 25 years in age, lower incomes and smaller households.

4.1.12. Listen to music or radio programmes

Figure 37: “Listened to radio or music on the Internet using RealAudio, Windows Media Player or QuickTime” in the past three months

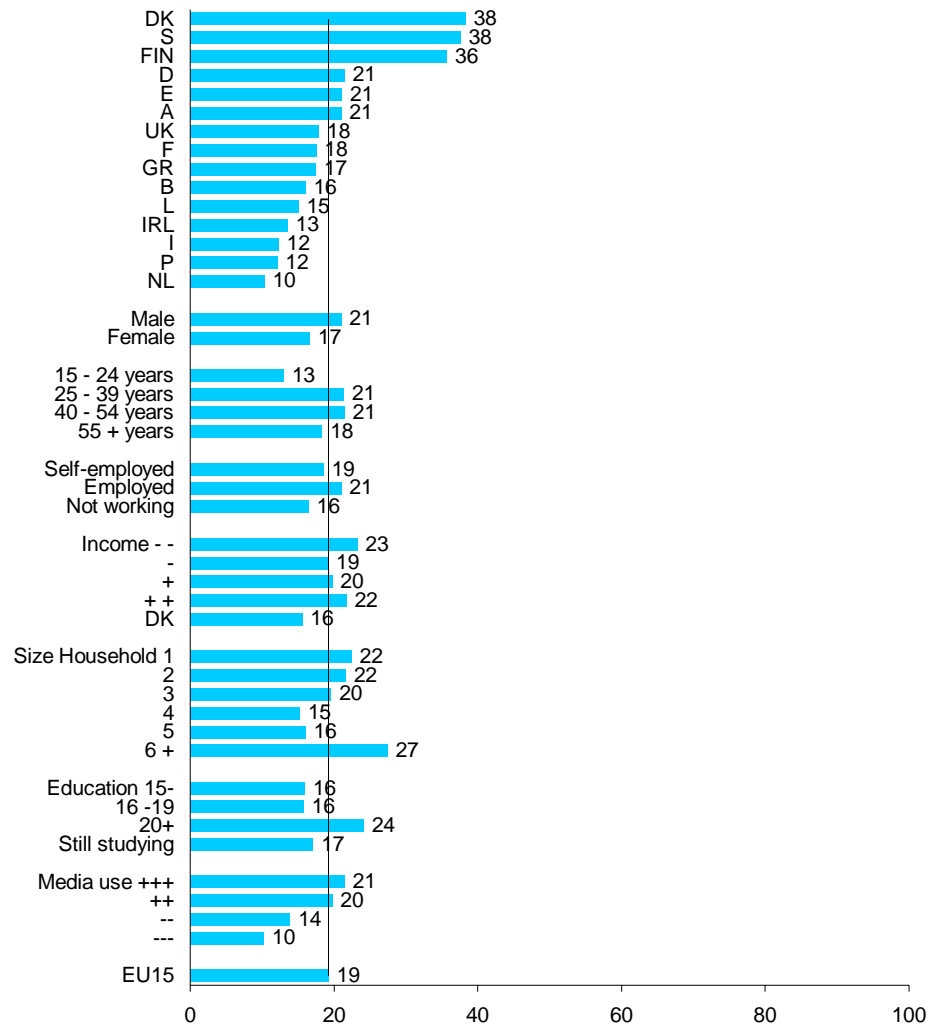


Base: Internet users (n=3,069)

Listening to music or radio programmes on the Internet shows high contrast among demographic groups. It is significantly more popular among men, lower incomes, students and below 25 years of age.

4.1.13. Local authority

Figure 38: “Visited the web site of your local authority” in the past three months

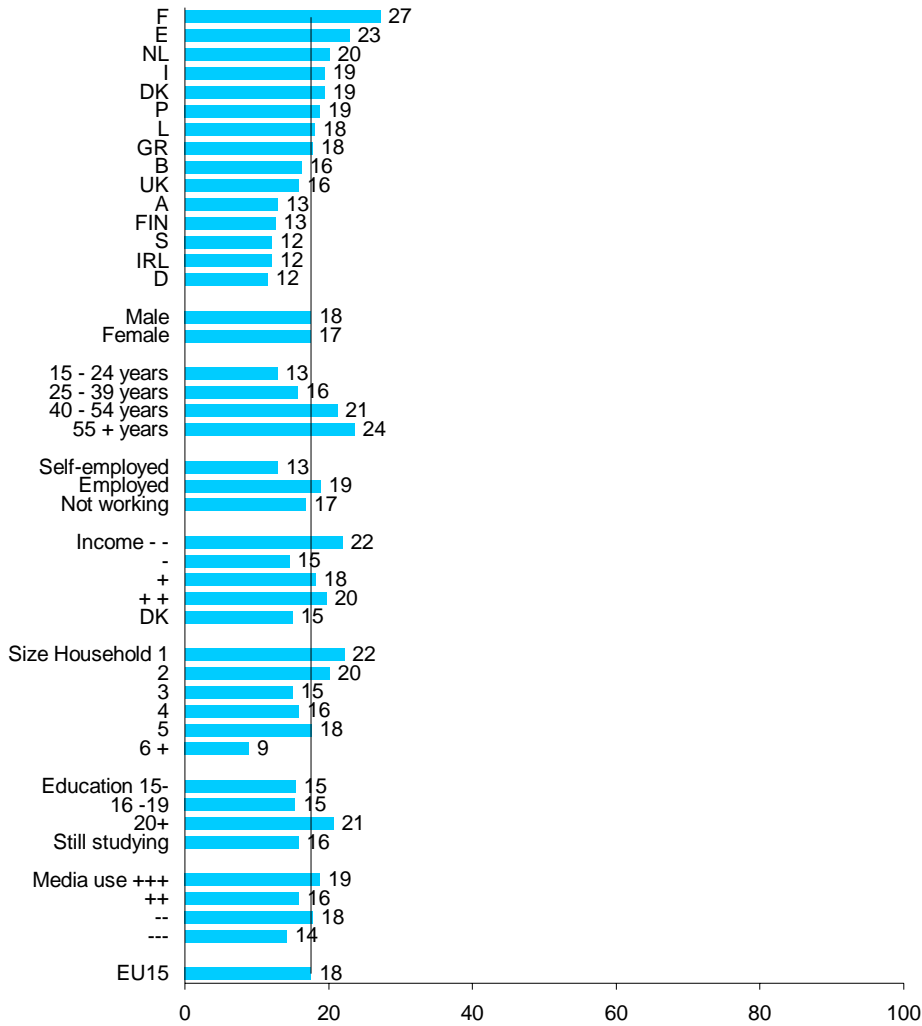


Base: Internet users (n=3,069)

Over one third of Internet users in the three Scandinavian countries say they have visited the web site of their local authority in the past three months, while the European average is slightly under 20 per cent. People with higher education or living in very large households seem more likely to visit such sites.

4.1.14. Museum

Figure 39: “Visited the web site of a museum” in the past three months

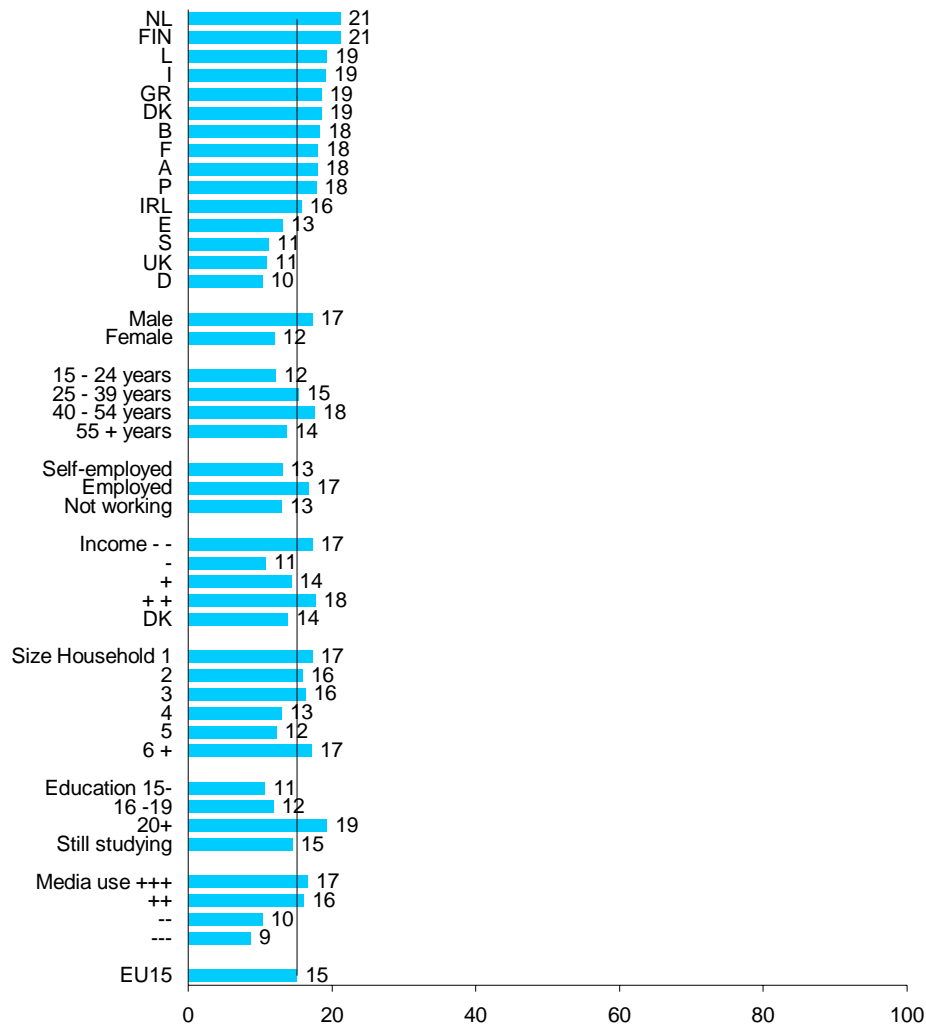


Base: Internet users (n=3,069)

Visiting the web site of a museum is strongly correlated with age. Internet users with higher education also appear significantly more fond of those sites.

4.1.15. Government

Figure 40: “Visited a web site of the government” in the past three months

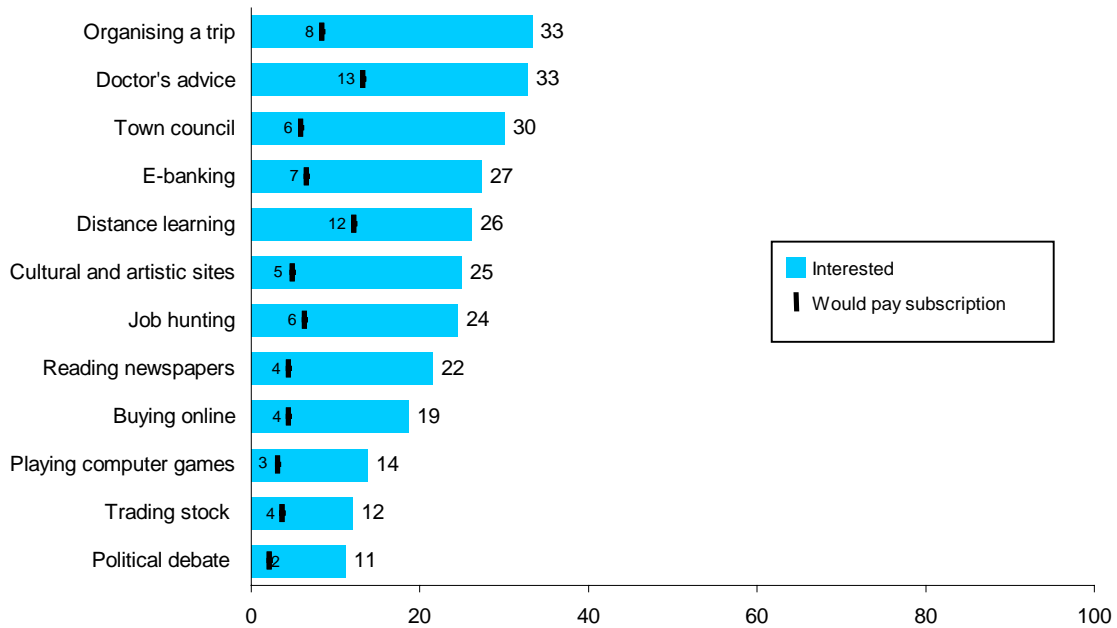


Base: Internet users (n=3,069)

Visitors of web sites of their government are more numerous among males, 40-54 years and highly educated.

4.2. Interest in on-line services

All respondents were asked whether they were interested in certain services they could access by using the Internet. Twelve such services were proposed. A separate set of questions queried, for each of the twelve services, whether respondents would be ready to pay a monthly subscription or access right of €10 (ten euro) in addition to communication costs. Note that the base for the results in this section are all respondents, and not only Internet users.

Figure 41: Interested in on-line services / Ready to pay subscription

Base: all respondents (n=16,078)

About one third of respondents, be they Internet users or not, show interest in resorting to the Internet for travel plans², as well as for a doctor's advice³ and town council information and documents⁴. Electronic banking⁵, distance learning⁶, Cultural sites⁷ and job hunting⁸ raise interest among about a quarter of respondents.

Among these potentially popular services, getting medical advice and distance learning are the two applications for which the largest proportion of Europeans would be ready to pay an additional subscription (13 and 12 per cent).

Reading newspapers on a computer screen⁹ seem tempting for over 20 per cent of respondents, but only 7 per cent would pay an access right for that purpose.

Buying products online¹⁰ falls below the 20 per cent proportion of interested respondents. More targeted applications such as playing computer games¹¹ or trading stocks¹² show even

² "Completely organising a trip from home, by getting information on places, fares, bookings, etc. from web sites"

³ "Getting a doctor's advice online on a health problem, for example receiving explanations about an X-ray, or blood test"

⁴ "Consulting from home, local town or council web sites, in order to get information, advice and documents you need"

⁵ "Managing your personal bank account from home on your computer"

⁶ "Learning and developing new skills or simply taking a qualification or a diploma by following a training programme from home, as if you attended the course in person"

⁷ "Browsing cultural and artistic web sites such as the web sites of Museums"

⁸ "Looking for a job by consulting web sites which advertise job opportunities from private companies"

⁹ "Reading on a computer screen daily newspapers, or magazines"

¹⁰ "Buying online products such as videos, CDs, books, computer software or hardware"

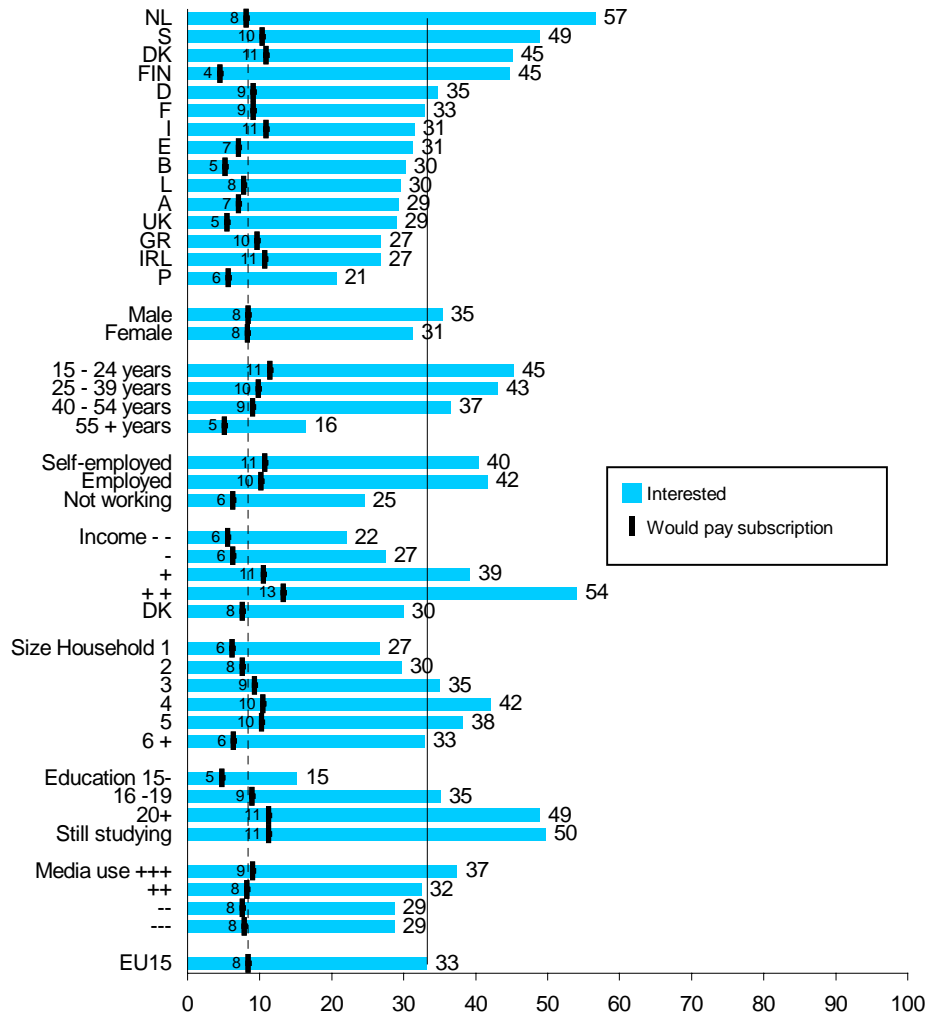
¹¹ "Playing computer games online with people living far away from your home"

lower figures. Finally, the least interesting service of the twelve services tested appear to be online political debate¹³ with only 11 per cent of respondents interested, and 2 per cent ready to pay a subscription.

The data broken down by socio-demographic variables shows significant contrast among groups.

4.2.1. Organising a trip

Figure 42: Interested in / Ready to pay for organising a trip



Base: all respondents (n=16,078)

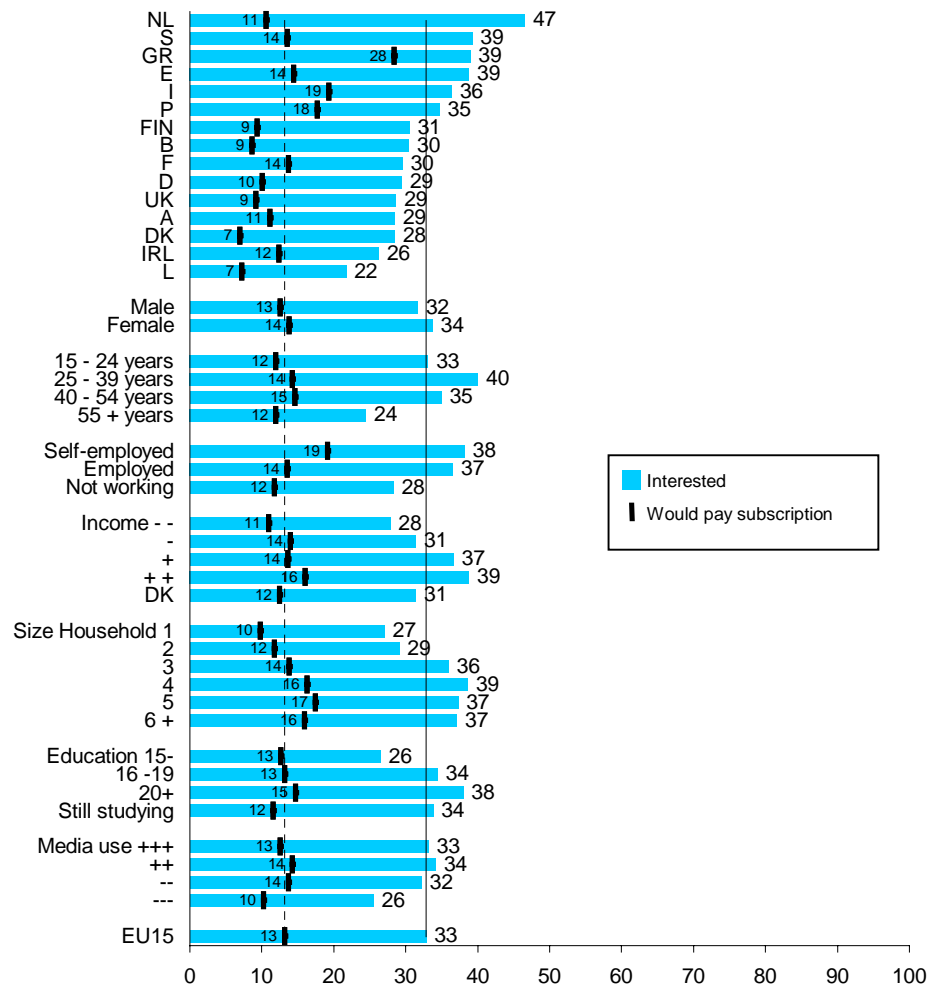
The Netherlands and the three Scandinavian countries show well above average proportions of interest for organising a trip using the Internet, although in Finland only 4 per cent are ready to pay a subscription for that service. Interest for that application decreases with age and increases with income, size of household and level of education.

¹² “Buying or selling shares on the Stock Exchange”

¹³ “Getting in contact, by e-mail, with a politician or taking part in political debates online”

4.2.2. Doctor's advice

Figure 43: Interested in / Ready to pay for doctor's advice



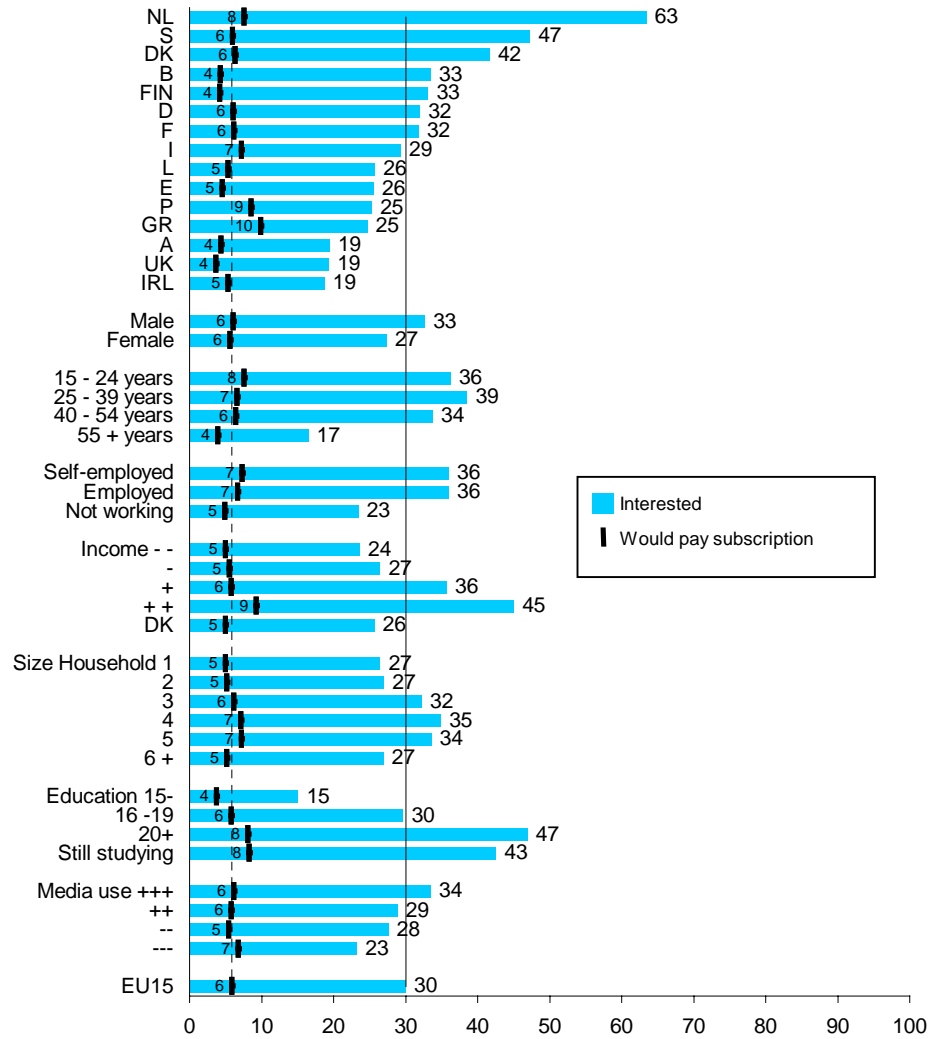
Base: all respondents (n=16,078)

Nearly one respondent in two in the Netherlands would be interested in getting a doctor's advice online, and more than 10 per cent would be ready to pay for that. Comparatively, less than one in four shows such interest in neighbouring Luxembourg, with 7 per cent ready to pay a subscription. Note that over a quarter of Greek respondents would pay a subscription for such service, that is over 70 per cent of the 39 per cent of the Greeks who say they would be interested.

Interest for online medical advice increases with income, size of household and education. A higher proportion of interested respondents is also found among 25-39 years of age.

4.2.3. Town council

Figure 44: Interested in / Ready to pay for consulting local town or council web site

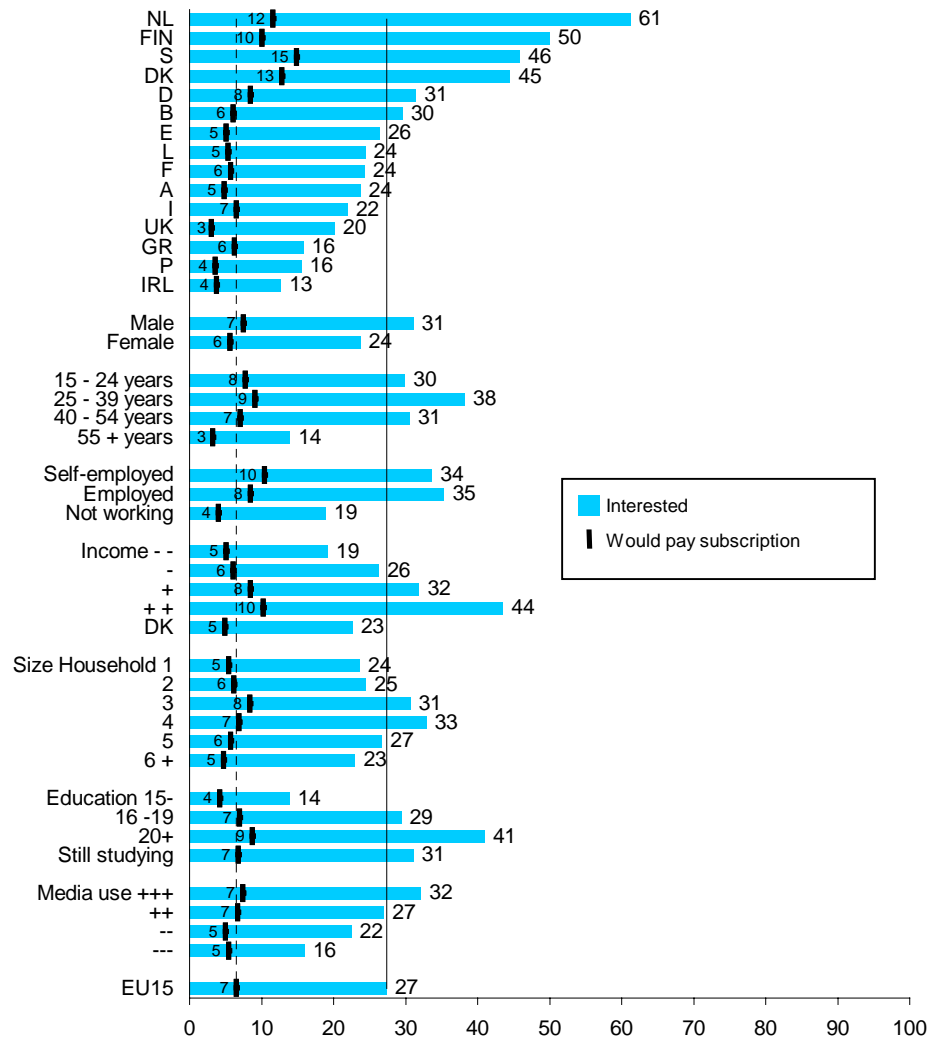


Base: all respondents (n=16,078)

Interest for local council web site fluctuates widely between nearly two thirds in the Netherlands and less than 20 per cent in Austria, the United Kingdom and Ireland. Interest increases with income, education and size of household. Female and older respondents show significantly less interest. There is little variation around the European average as regards the willingness to pay for such service.

4.2.4. Electronic banking

Figure 45: Interested in / Ready to pay for electronic banking

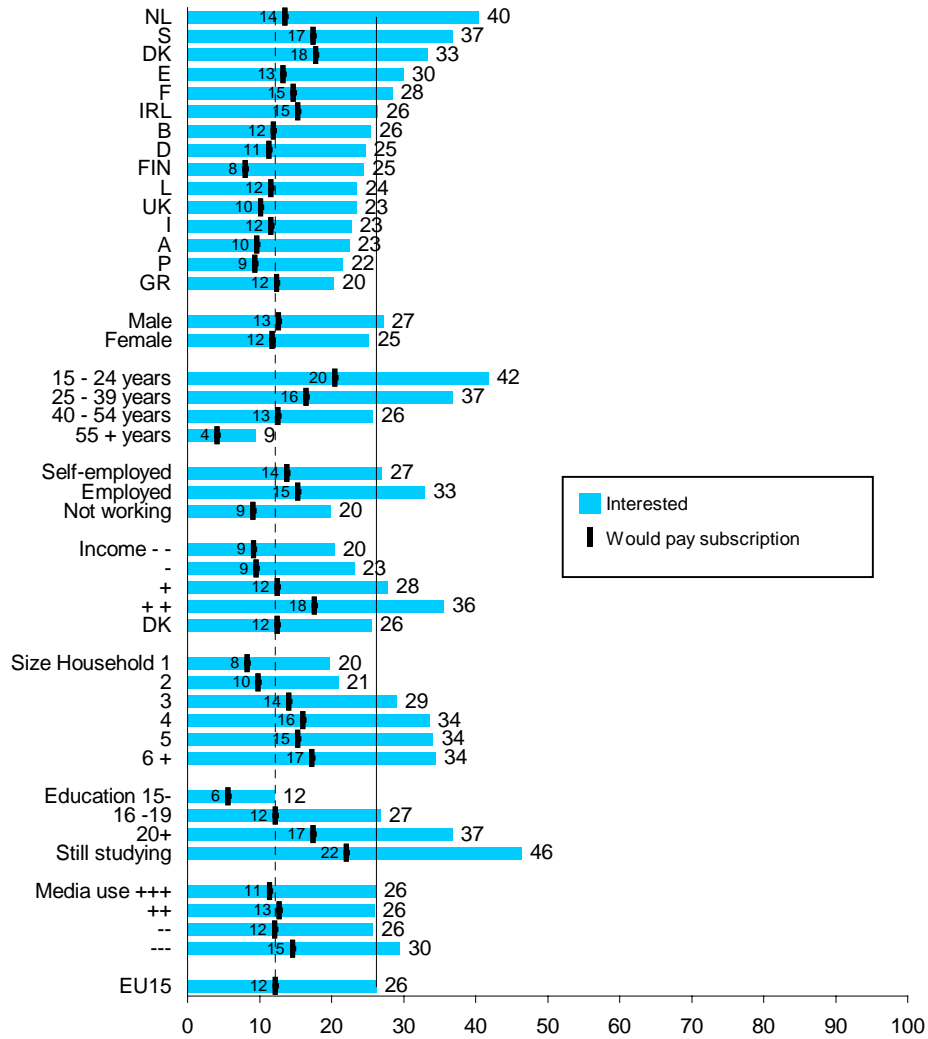


Base: all respondents (n=16,078)

Electronic banking raises very diverse levels of interest among groups of most demographic variables considered. Income, news media use and level of education appear to be the best predictors of such interest and willingness to pay. Middle aged and male respondents also show significantly more interest.

4.2.5. Distance learning

Figure 46: Interested in / Ready to pay for distance learning

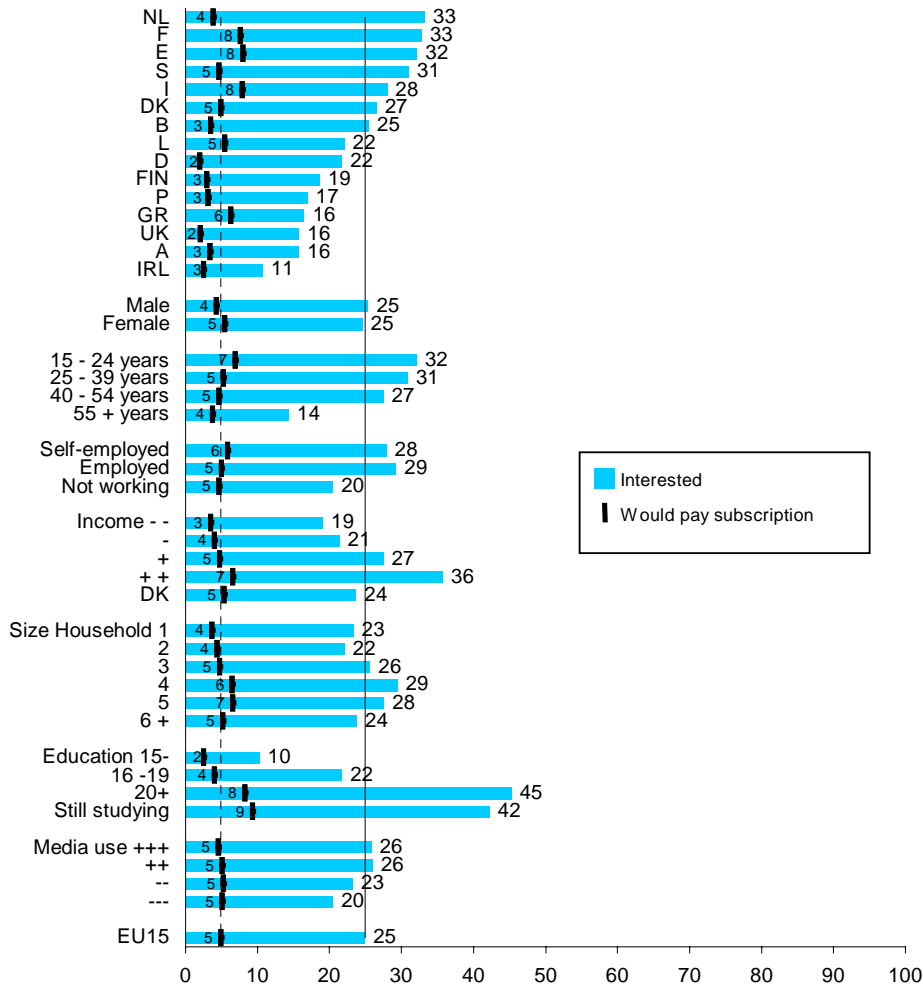


Base: all respondents (n=16,078)

Interest for distance learning decreases sharply with age, and increases just as sharply with level of education and of income.

4.2.6. Cultural and artistic sites

Figure 47: Interested in / Ready to pay for cultural and artistic sites

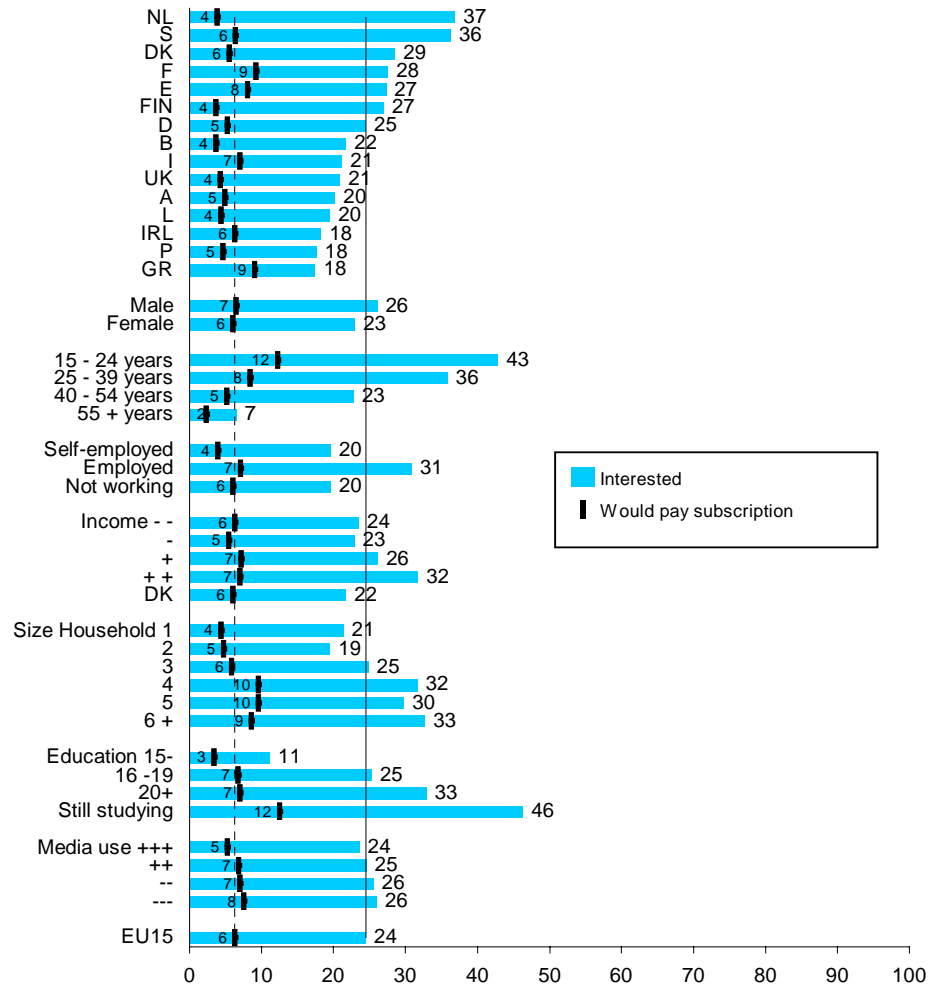


Base: all respondents (n=16,078)

Interest for cultural and artistic sites increases significantly with income and level of education, and decreases with age.

4.2.7. Job hunting

Figure 48: Interested in / Ready to pay for job hunting

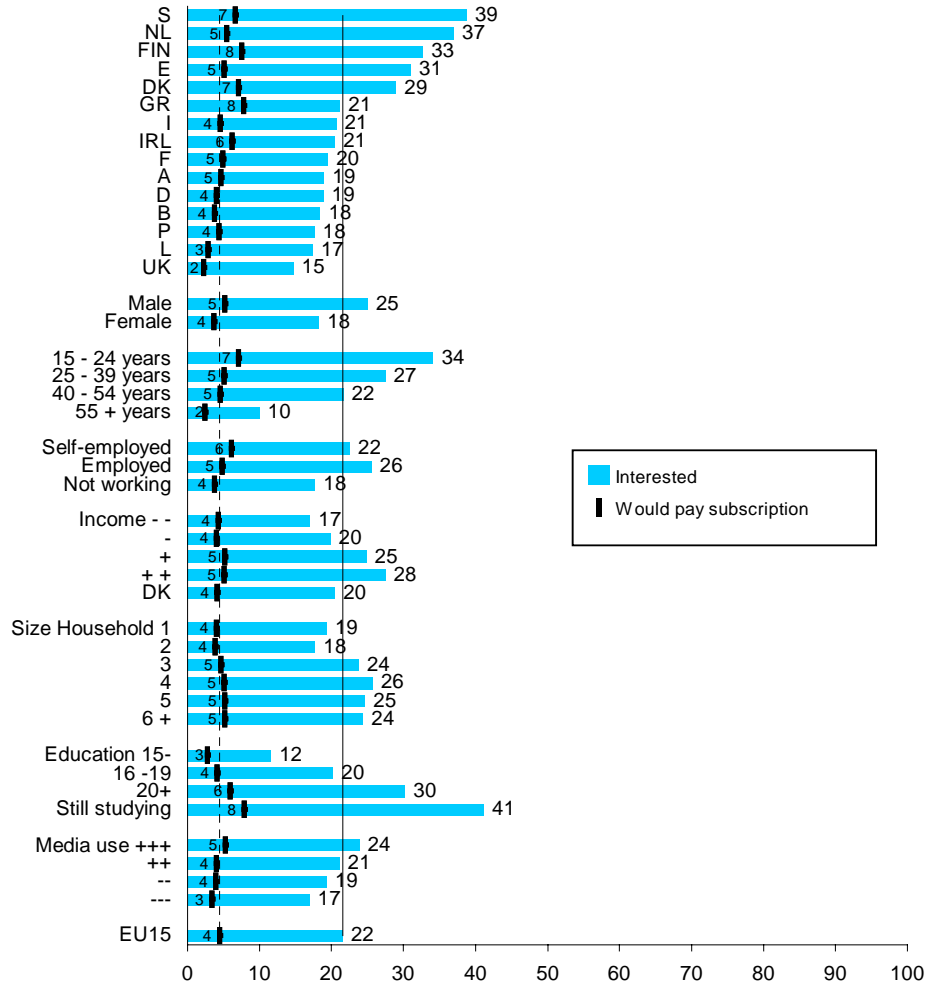


Base: all respondents (n=16,078)

Job hunting interests significantly more students and younger segments in general, while income and size of household also appear to impact on interest for such application.

4.2.8. Reading newspapers or magazines

Figure 49: Interested in / Ready to pay for reading newspapers or magazines

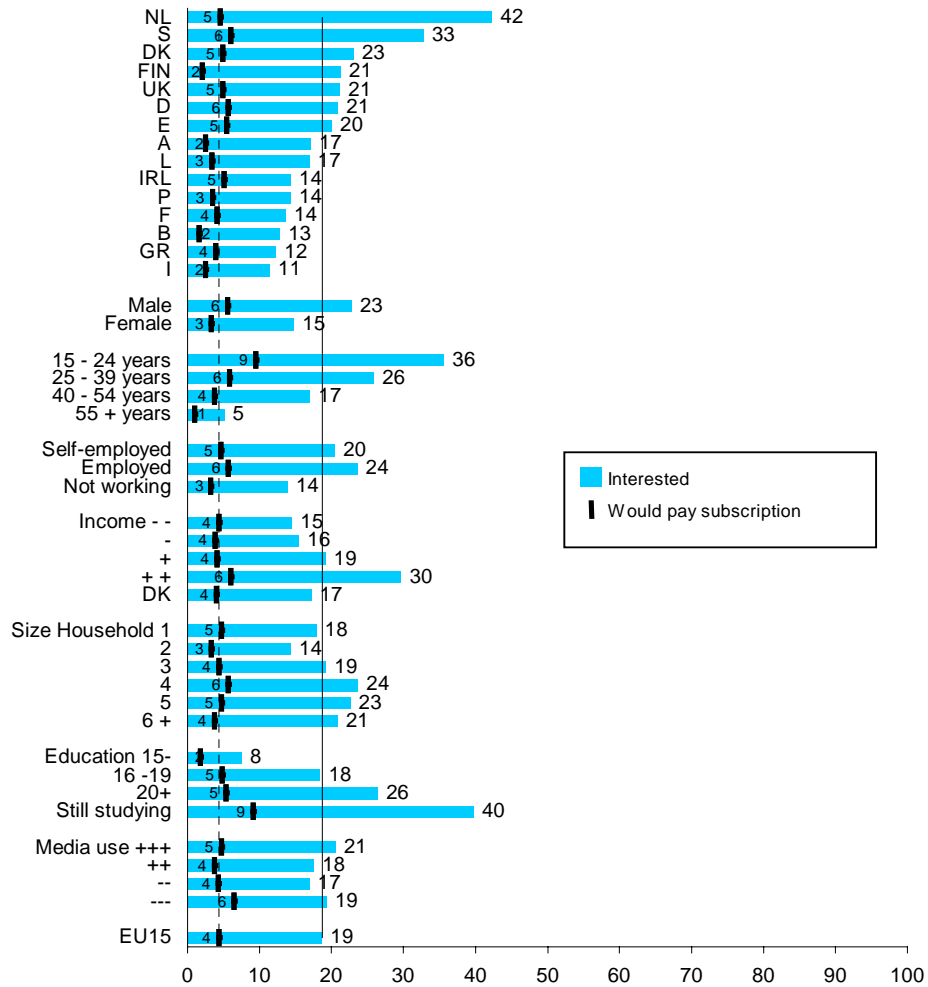


Base: all respondents (n=16,078)

Reading newspapers or magazines online is raises more interest among younger or male respondents, with higher incomes or higher level of education. Such interest is only slightly correlated with news media consumption in general. Few respondents are willing to pay an additional subscription for such service.

4.2.9. Buying products

Figure 50: Interested in / Ready to pay for buying products

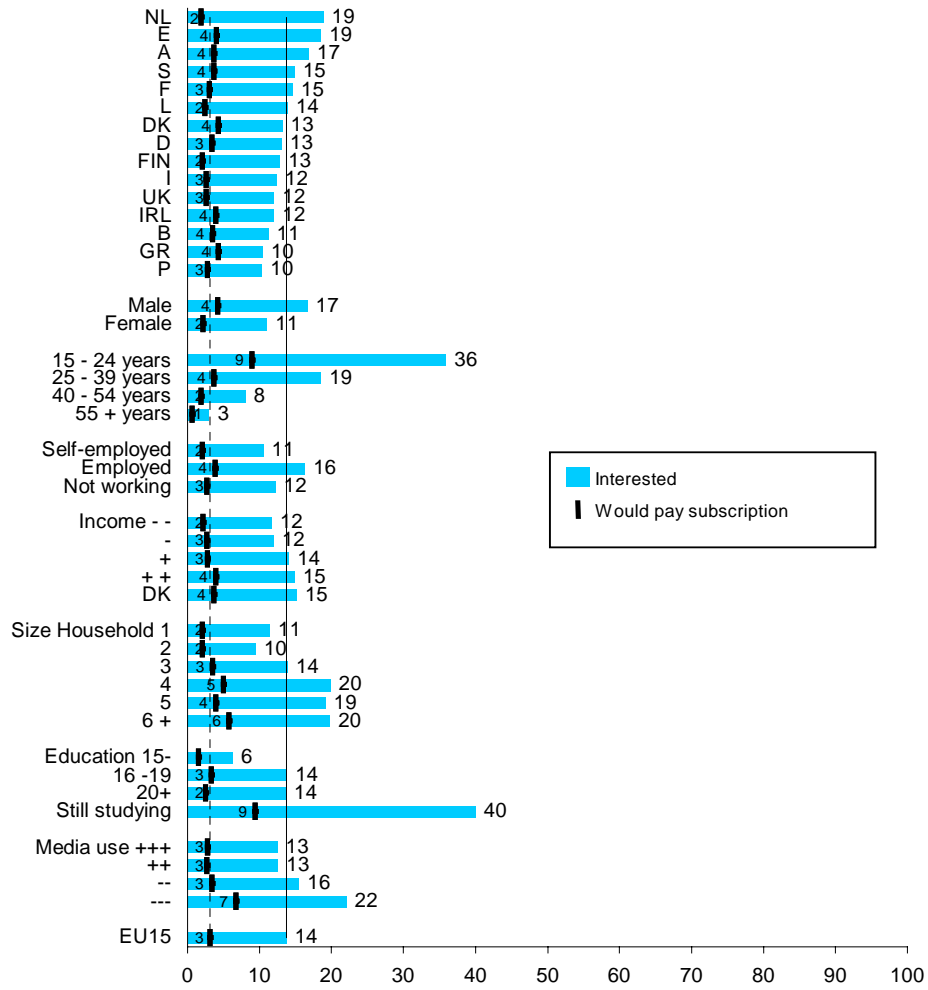


Base: all respondents (n=16,078)

Online shopping raises significantly more interest among men. Interest increases with income and level of education, while it decreases with age. Much fewer people are willing to pay a subscription for that purpose.

4.2.10. Playing computer games

Figure 51: Interested in / Ready to pay for playing computer games

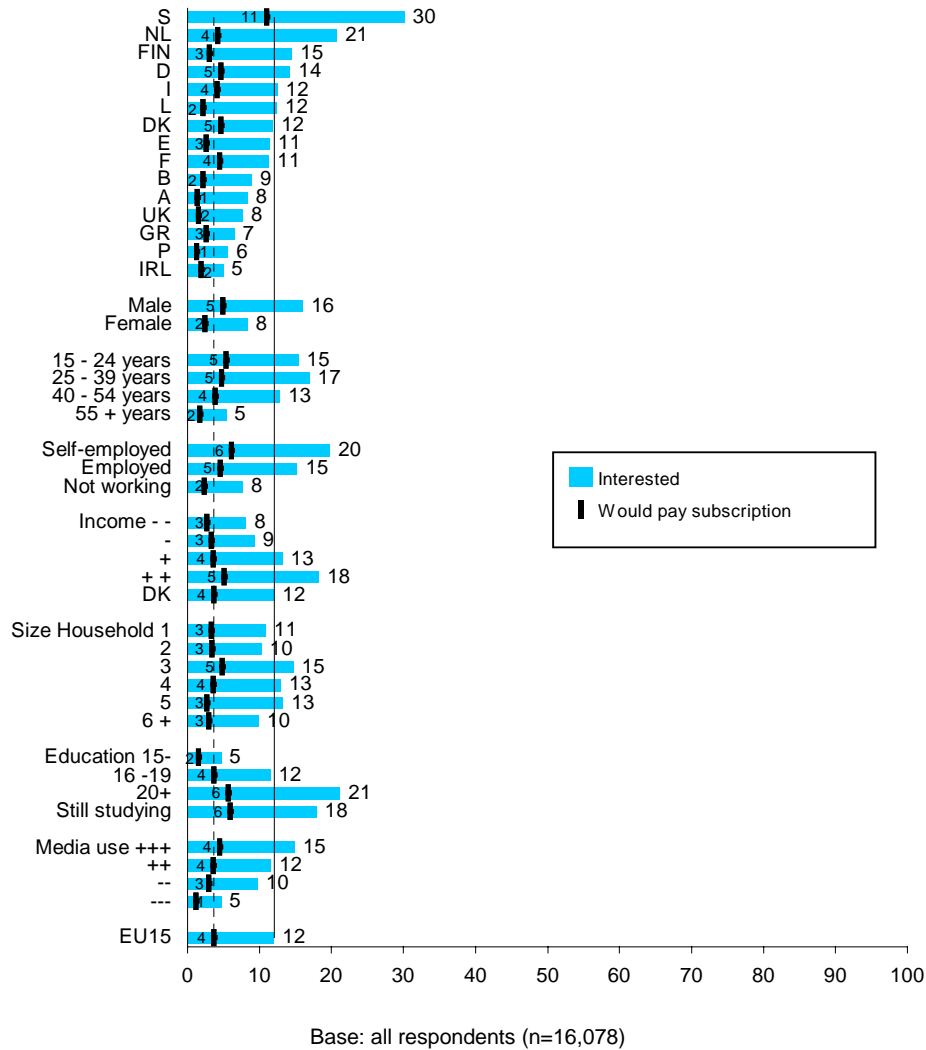


Base: all respondents (n=16,078)

Online gaming is clearly found more interesting among students and younger respondents in general. Such interest is relatively homogeneous across Europe.

4.2.11. Trading stocks

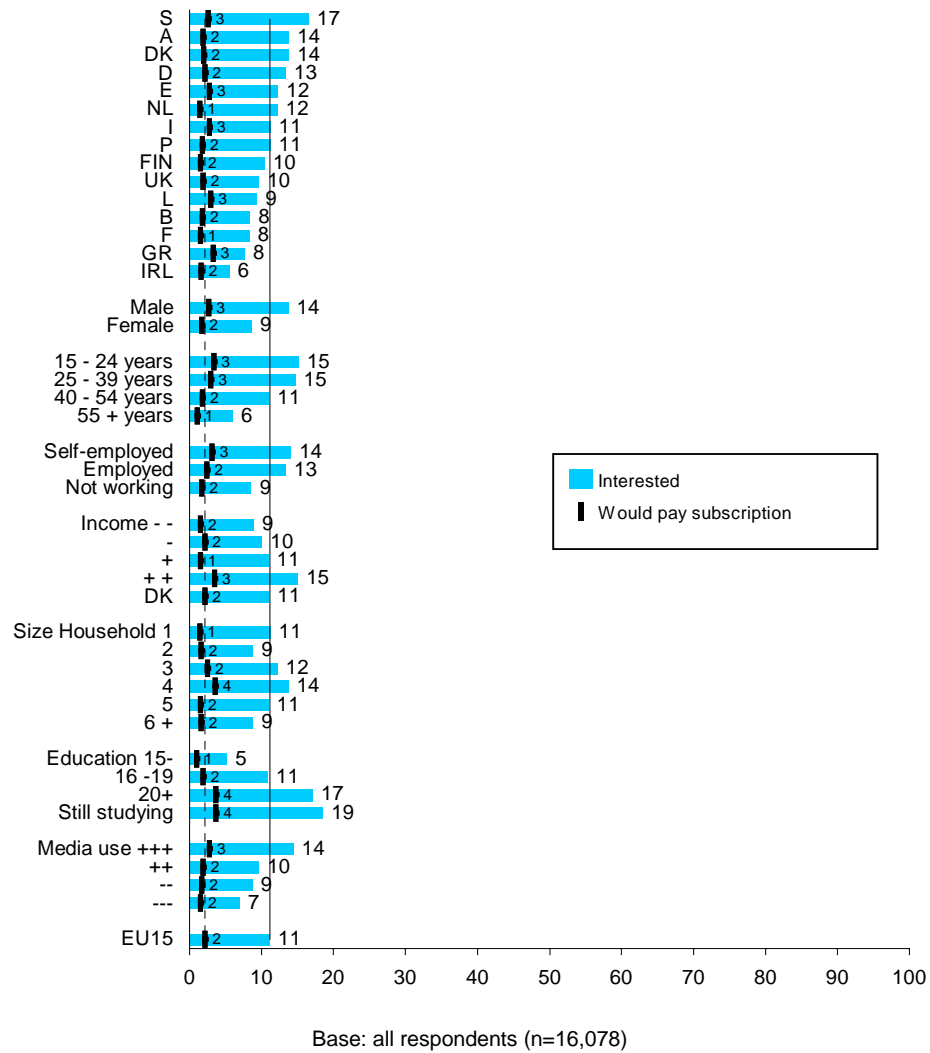
Figure 52: Interested in / Ready to pay for buying or selling shares on the Stock exchange



Sweden stands out for a much larger proportion of respondents interested in online stocks trading, and a proportionally larger proportion of respondents willing to pay a subscription. Men are twice as many showing interest than women. Interest raises with levels of income and education.

4.2.12. Political debates

Figure 53: Interested in / Ready to pay for contacting politicians or taking part in political debates



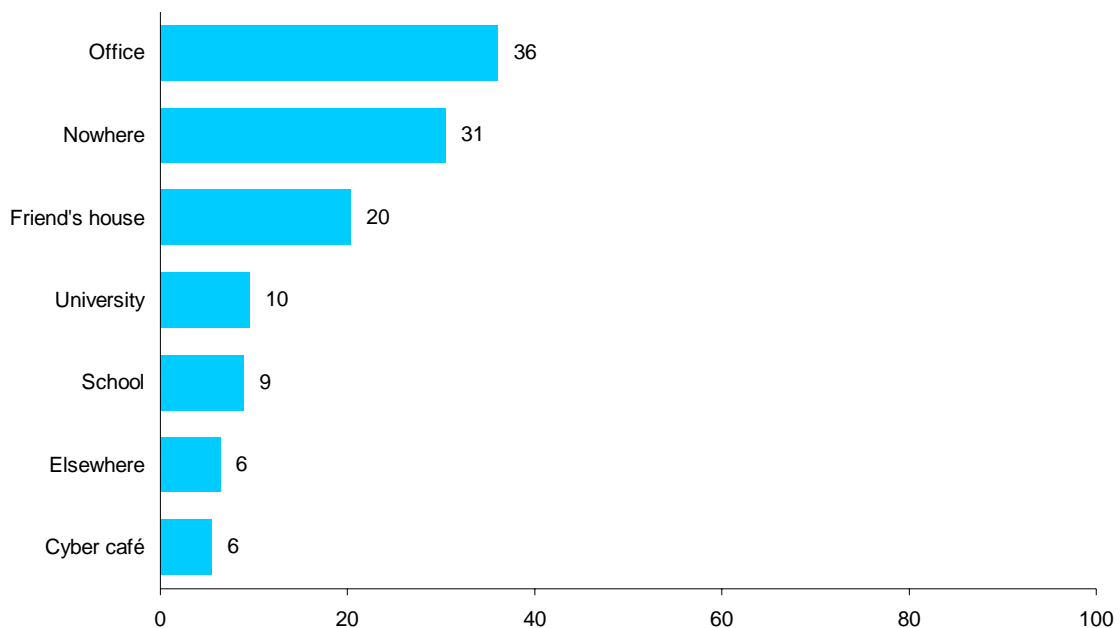
Interest for online political debating is scarce, but significantly higher among men, age group 15-39 years, higher levels of income and education.

5. INTERNET BROWSING AS AN ACTIVITY

5.1. Places of access to the Internet

An additional set of questions queried whether respondents using the Internet at home had access to the Internet elsewhere.

Figure 54: Access to the Internet outside one's home

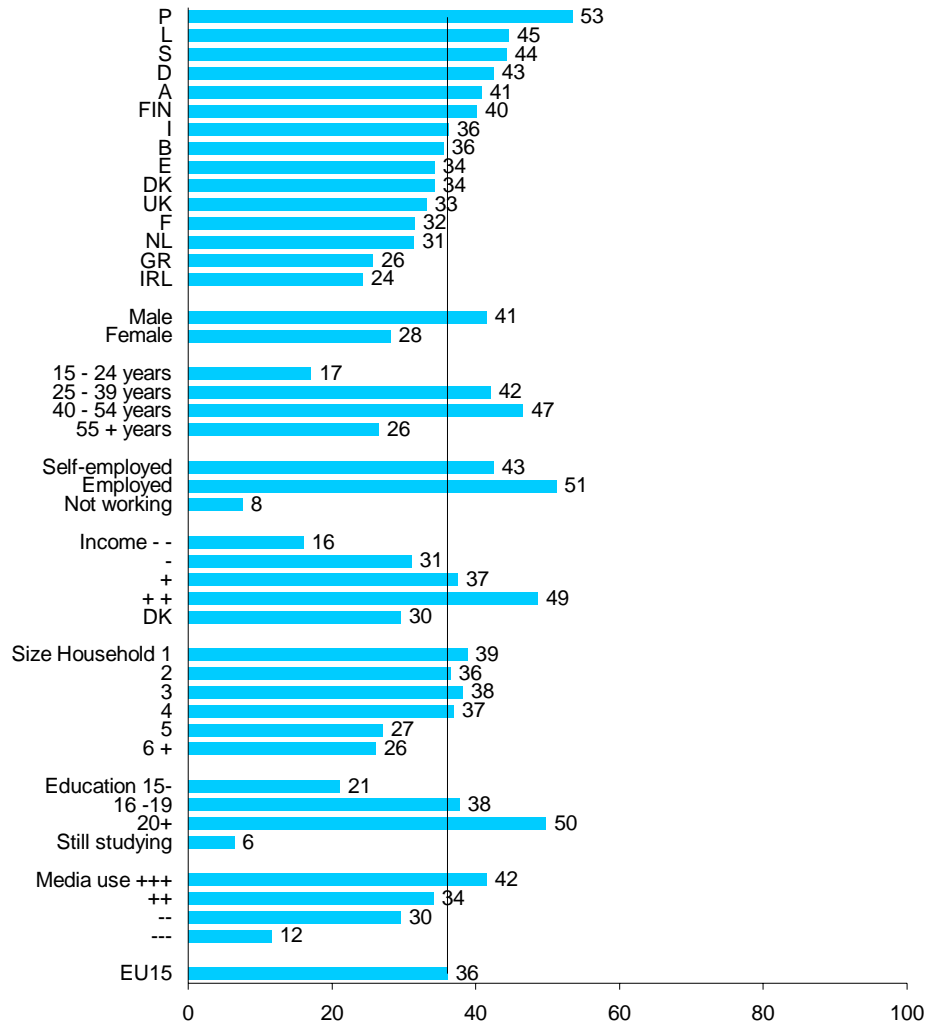


Base: Internet users (n=3,069)

Over one third of respondents using the internet at home also have access to the Internet in their office. Universities or schools appear more marginal on the total average, yet these are only accessible to the younger age groups (see below). Cyber cafes remain marginal. About one third of Internet users have no other access than their home's. Detailed analysis shows that each of these places show significantly contrasted proportions among groups.

5.1.1. In the office

Figure 55: Internet access in the office

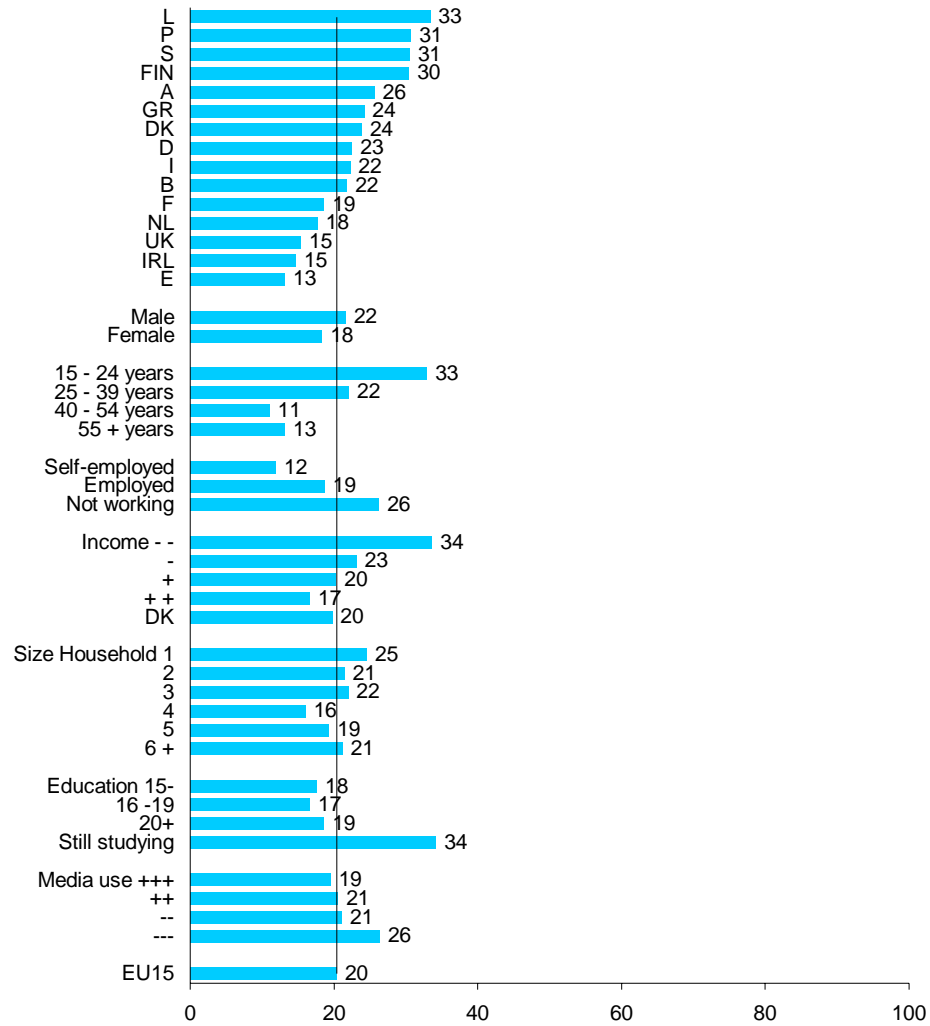


Base: Internet users (n=3,069)

Access to the Internet in the office increases with education, income and age (with the exception of the 55 years and over group). Men are more likely to access the Internet in the office.

5.1.2. In a friend's house

Figure 56: Internet access in a friend's house

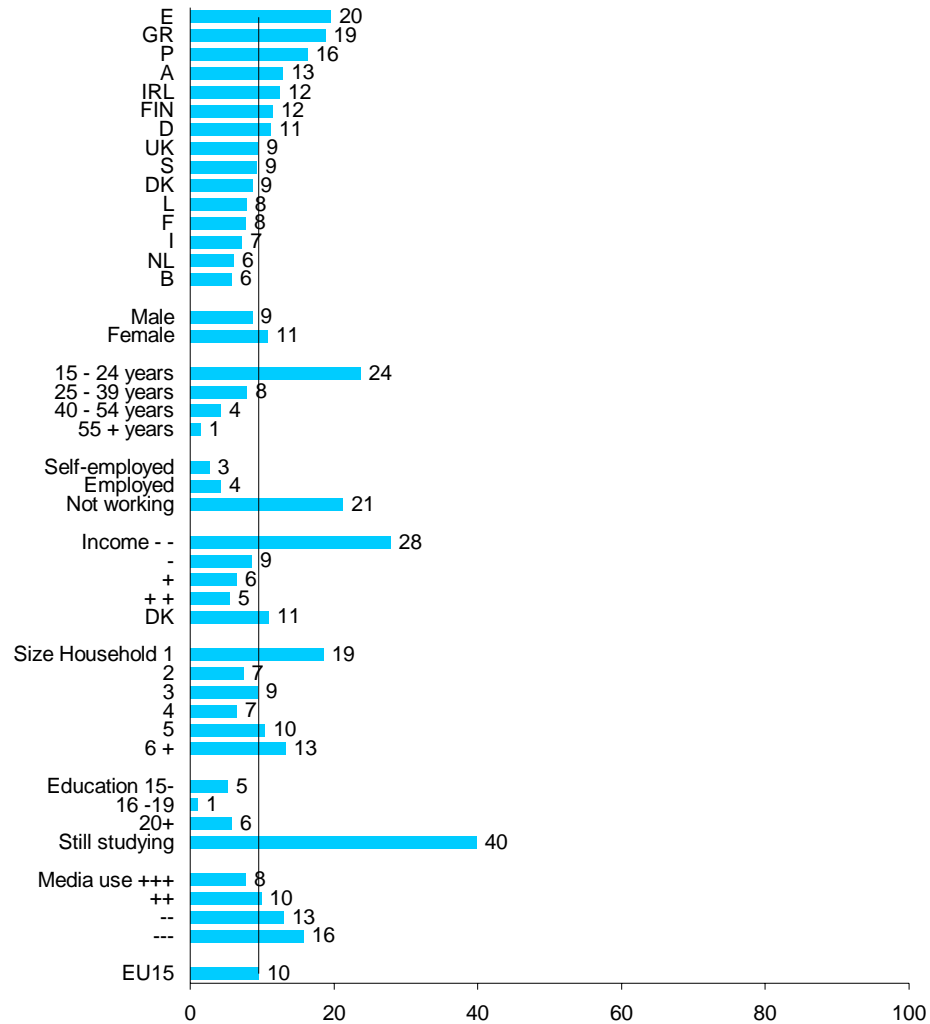


Base: Internet users (n=3,069)

Accessing the Internet from a friend's house is particularly widespread among younger respondents, students and lower income groups.

5.1.3. At the University

Figure 57: Internet access in the University

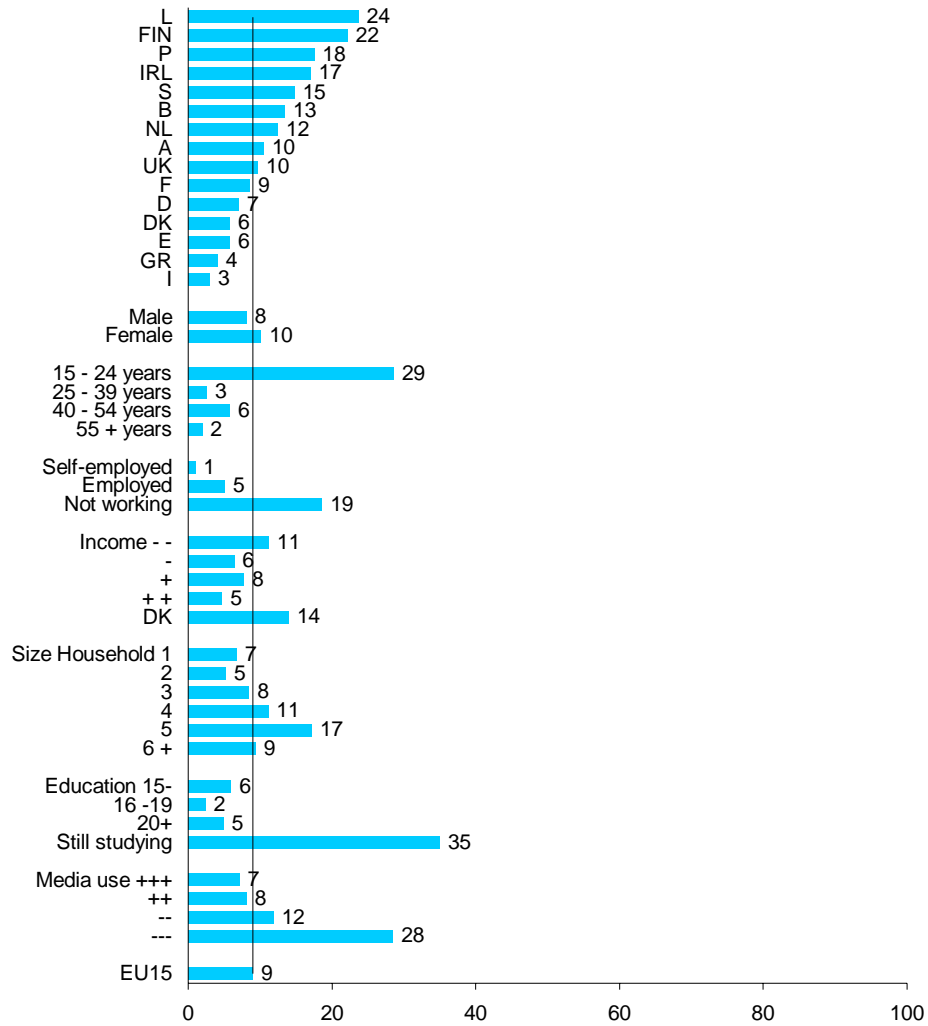


Base: Internet users (n=3,069)

Unsurprisingly, students and younger respondents in general are more likely to access the Internet from the University. Note that three Southern European countries (Spain, Greece and Portugal) lead all others on this variable.

5.1.4. At school

Figure 58: Internet access at school

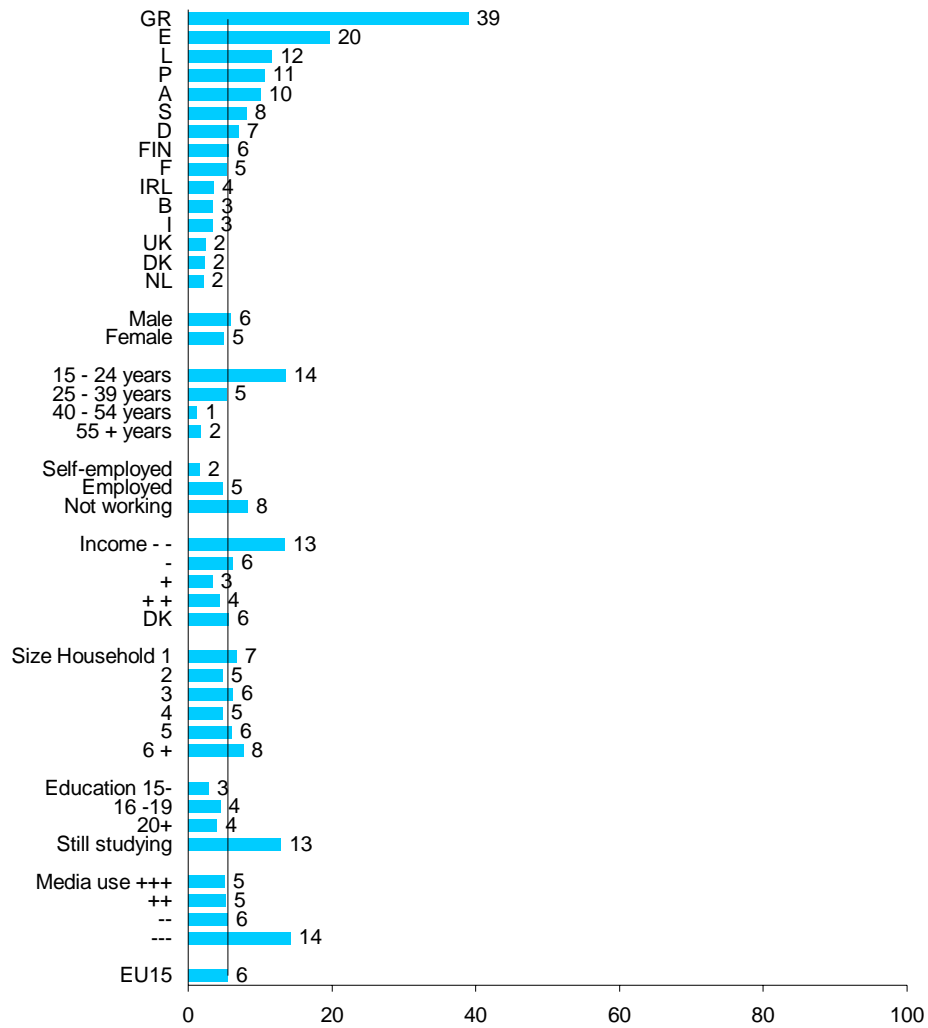


Base: Internet users (n=3,069)

The range of proportions of Internet users also having access at school is quite wide among nations.

5.1.5. In a cyber-café

Figure 59: Internet access in a cyber-café

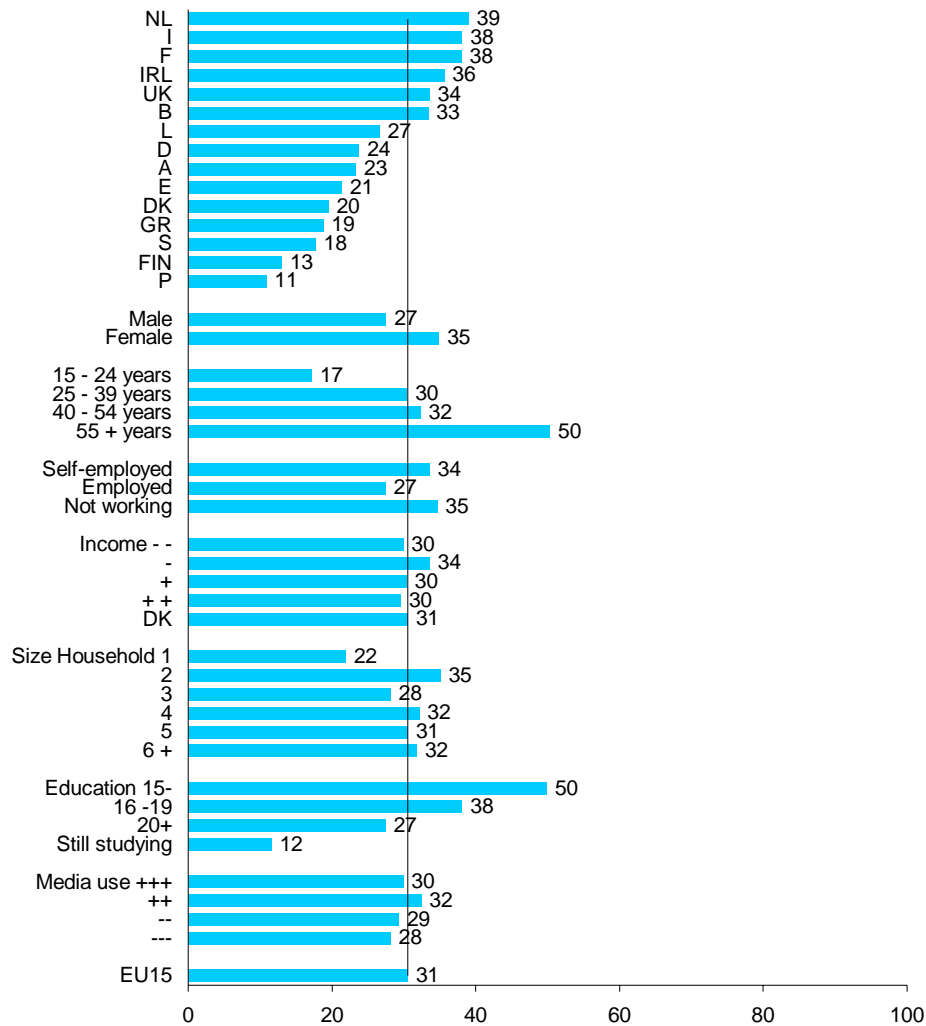


Base: Internet users (n=3,069)

Cyber-café appear strikingly more popular in Greece and, to a lesser extent, in Spain than in the rest of Europe.

5.1.6. From home only

Figure 60: Internet access from nowhere else (but from home)

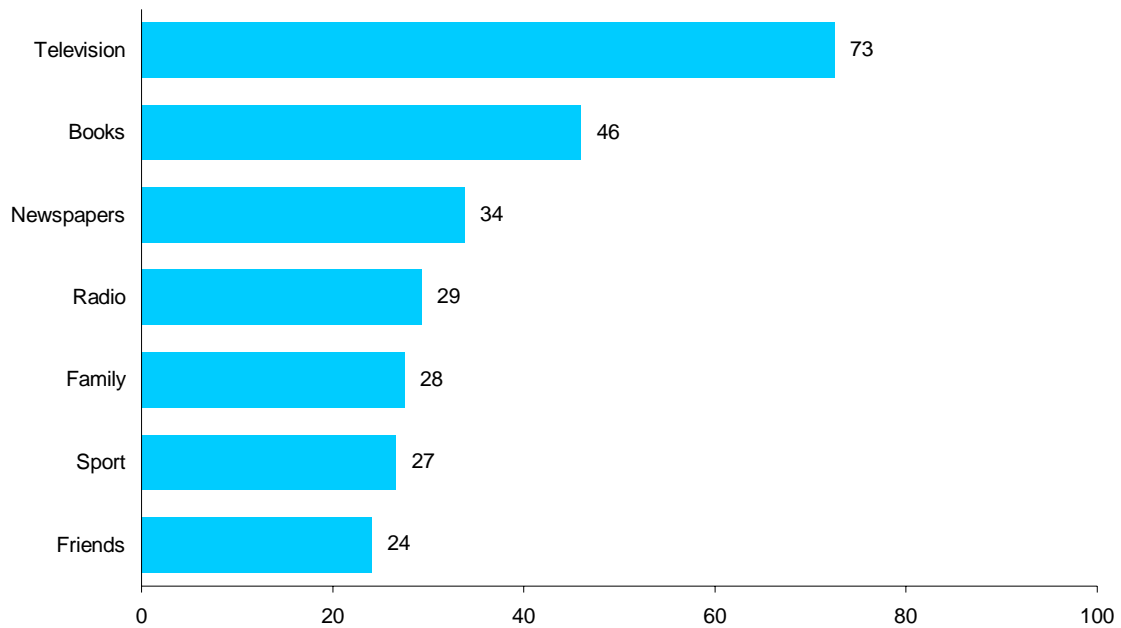


Base: Internet users (n=3,069)

Only a little over one Internet user in ten uses from home only in Portugal and in Finland, while this proportion rises to nearly 40 per cent in France, Italy and the Netherlands. Those ‘residential’ internet users account for exactly half of the oldest and the least education Internet users.

5.2. Impact on other activities

In order to tackle the issue of the impact of Internet browsing on peoples time-budget, Internet users were asked whether they felt that the fact that they used the Internet reduced the time they would otherwise spend on a number of other leisure activities.

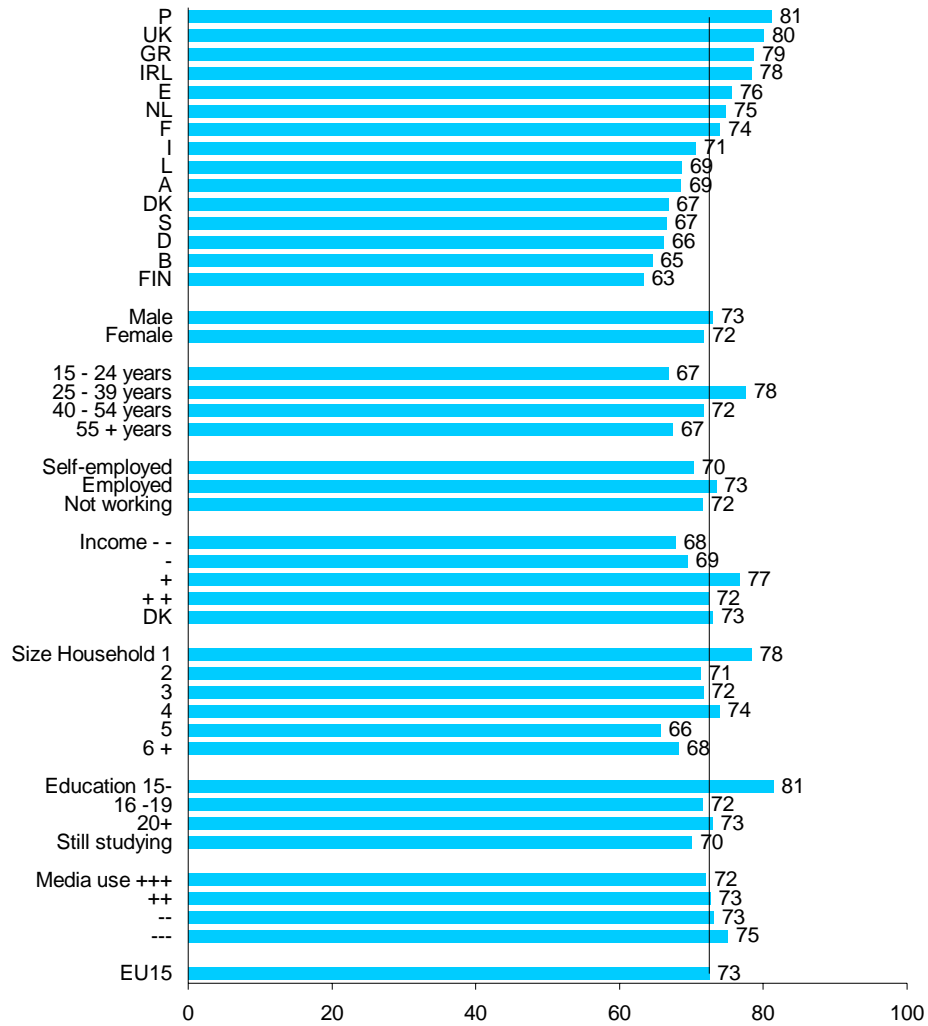
Figure 61: Using Internet reduces time spent on other activities

Base: Internet users (n=3,069)

About three quarters of the Internet users say that the time they spend on the Internet reduces the time they spend watching television. Nearly one in two says it affects the time spent reading books, while a third say it affects their newspaper reading.

5.2.1. Television

Figure 62: Internet reduces time spent watching television

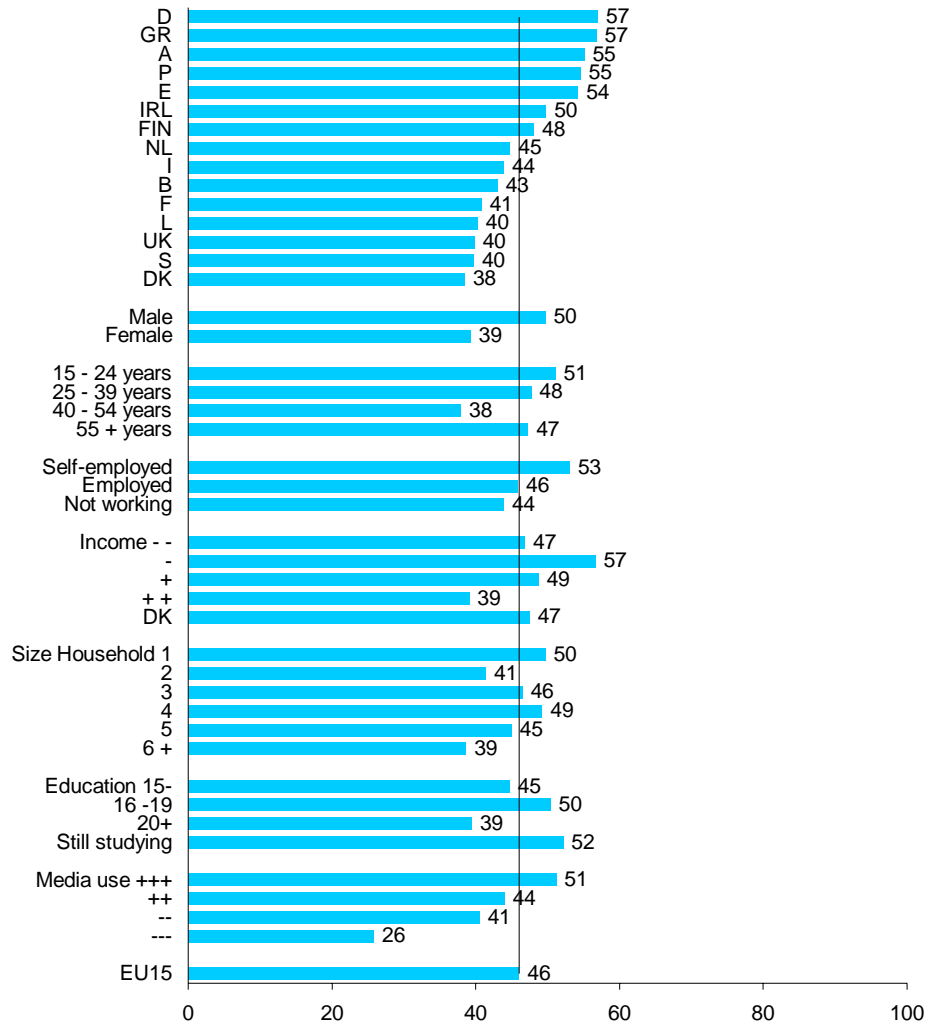


Base: Internet users (n=3,069)

Respondents with lower education, along with those living in a single household and those aged 25-39 see their time spent watching television most affected.

5.2.2. Books

Figure 63: Internet reduces time spent reading books

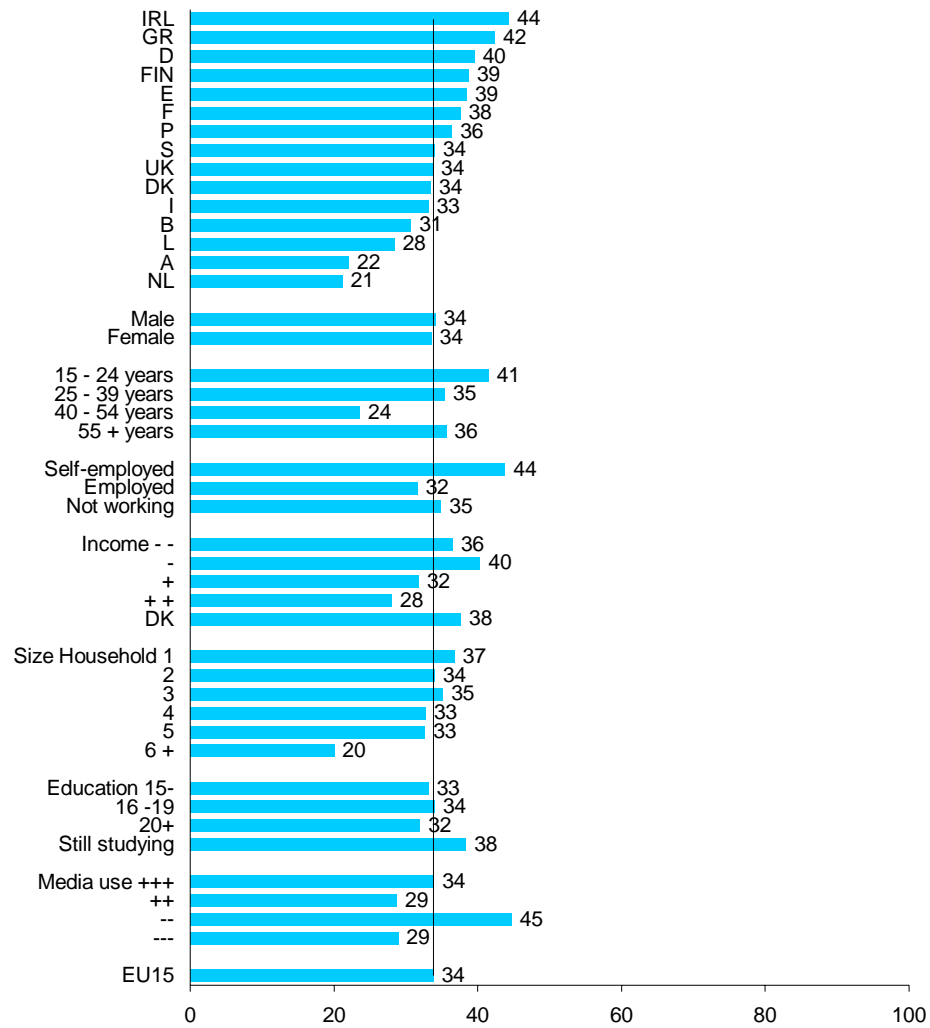


Base: Internet users (n=3,069)

Book reading is more affected among men than women. The age group 40-54 years is significantly less affected, as are higher incomes and level of education.

5.2.3. Newspapers

Figure 64: Internet reduces time spent reading newspapers

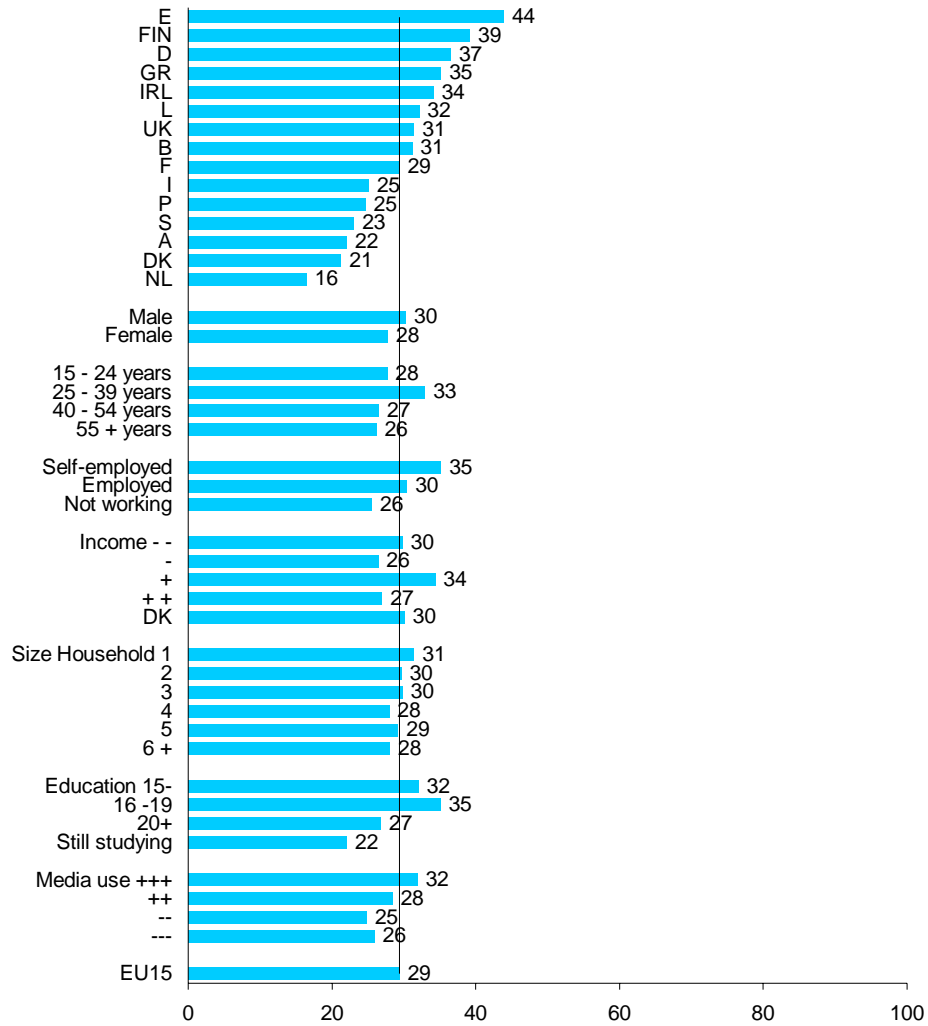


Base: Internet users (n=3,069)

Internet users in the age group 40-54 years are less affected in their time spent reading newspapers than others, as are people living in very large households.

5.2.4. Radio

Figure 65: Internet reduces time spent listening to the radio

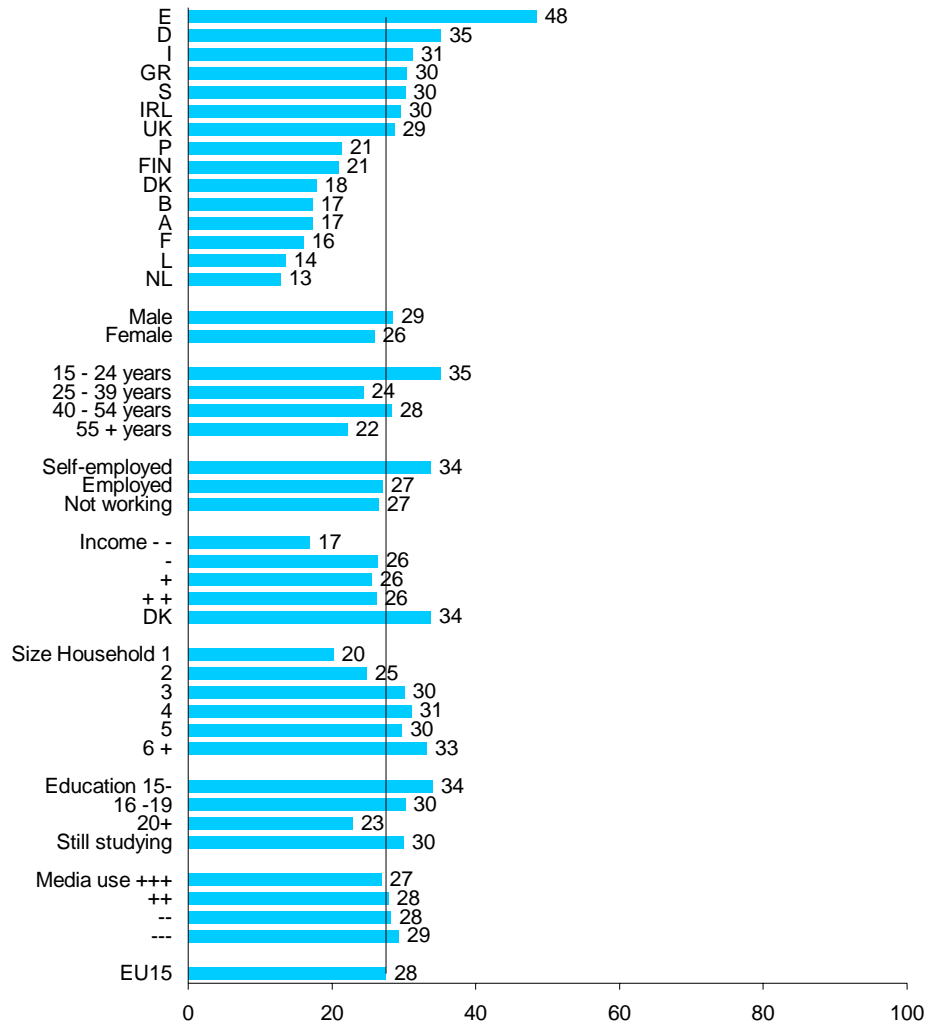


Base: Internet users (n=3,069)

The reduction of time spent listening to the radio is quite diversified among nations, yet not much diversified among demographic groups.

5.2.5. Family

Figure 66: Internet reduces time spent with family

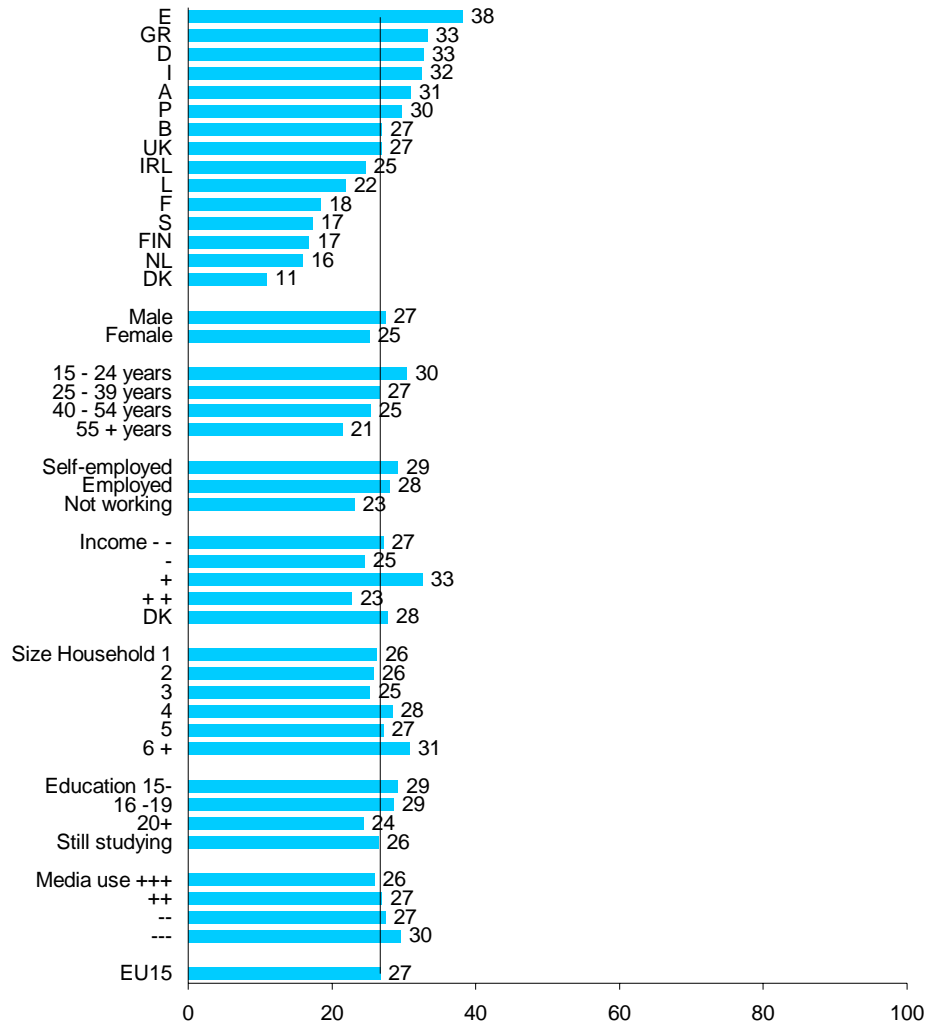


Base: Internet users (n=3,069)

Spanish families appear significantly more likely to be affected the time their members spend on the Internet (one Spanish Internet user in two says it reduces the time he or she spends with family). Younger Internet users, along with self-employed and less educated are also more numerous to be affected that way.

5.2.6. Sport

Figure 67: Internet reduces time spent doing sport or physical activity

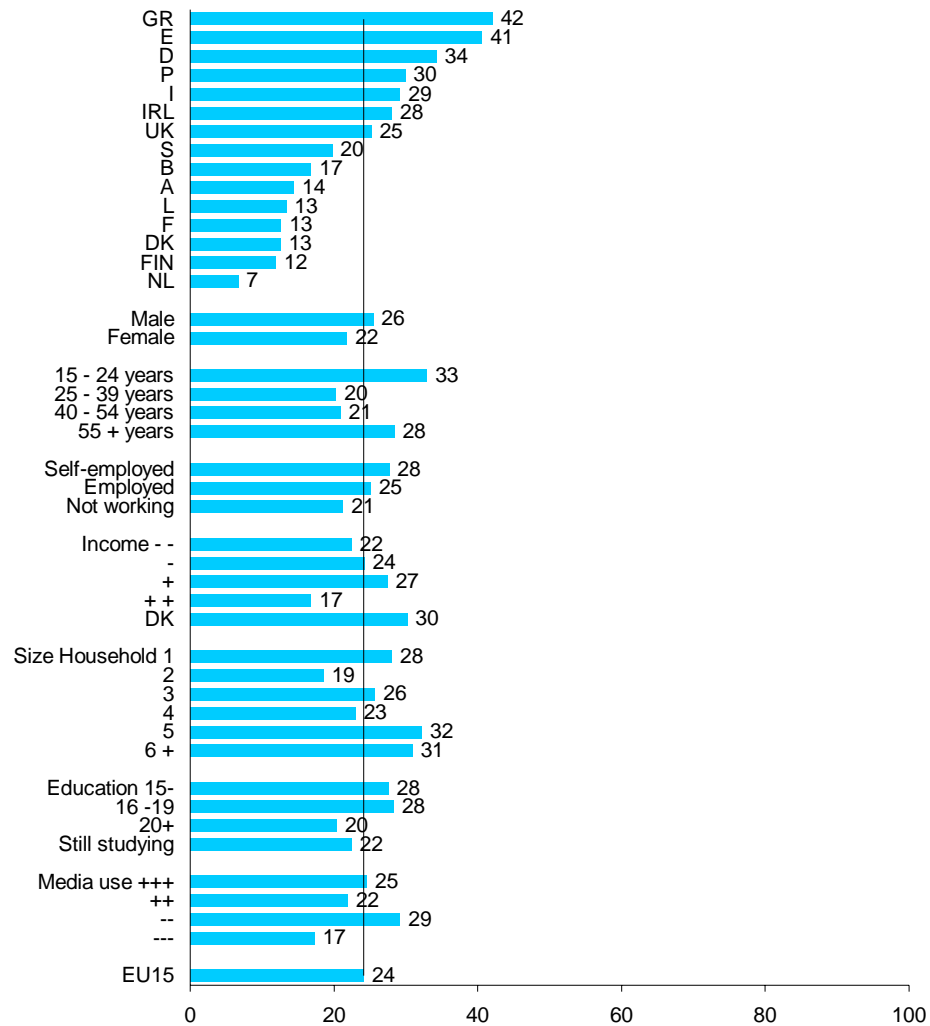


Base: Internet users (n=3,069)

The impact of Internet use on sport and physical activity varies considerably across Europe. Yet, differences among demographic groups are much less spectacular. Younger and middle income Internet users appear slightly more affected than others.

5.2.7. Friends

Figure 68: Internet reduces time spent with friends



Base: Internet users (n=3,069)

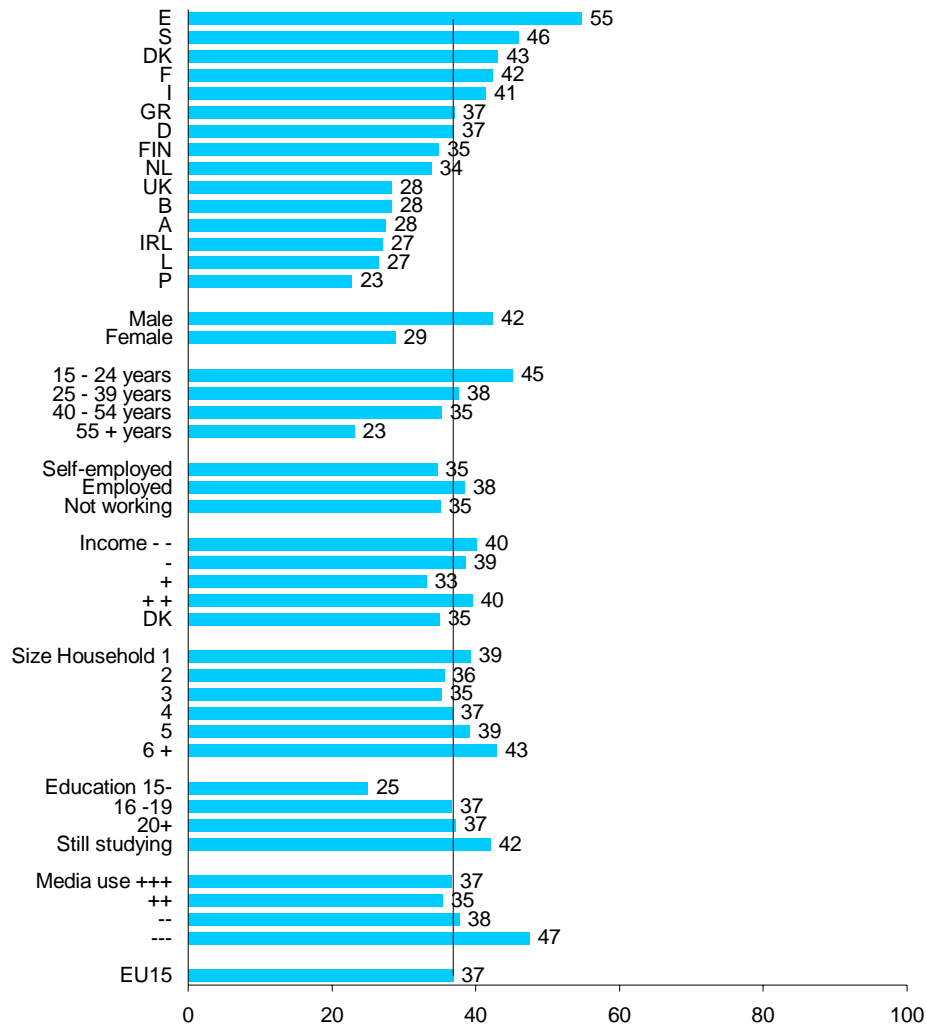
Internet users who are younger, live in large families and are less educated are more likely to be affected in the time they spend with friends. Variation among nations is particularly spectacular with over 40 per cent of Internet users in Greece and Spain, and only 7 per cent in the Netherlands who say they spend less time with friends as a result of their using the Internet.

6. INTERNET CONNECTION

6.1. Satisfaction with speed of connection

Internet users were asked whether they were satisfied with the speed of connection to the Internet.

Figure 69: Internet users not satisfied with the speed of connection

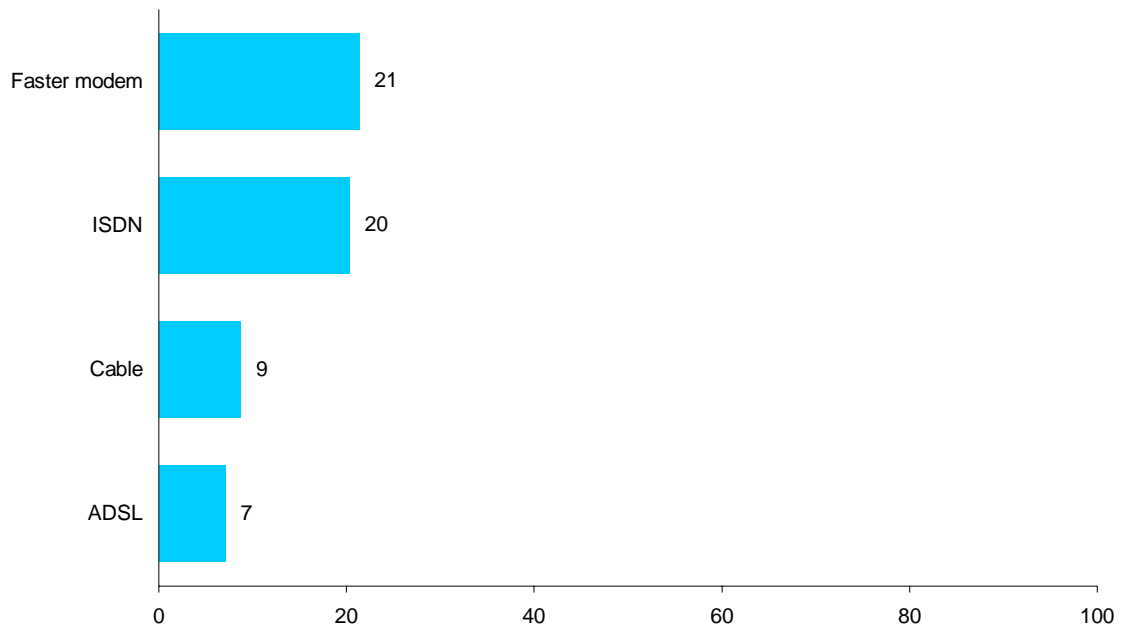


Base: Internet users (n=3,069)

On average, over one third of Internet users say they are not satisfied with the speed of their connection. That proportion varies considerably between less than a quarter in Portugal and over one half in Spain. More men complain about this parameter than women. Proportions of unsatisfied users decreases with age and increases with level of education.

6.2. Ways to improve speed of connection

Internet users were asked which way or ways they would consider to improve the speed of connection.

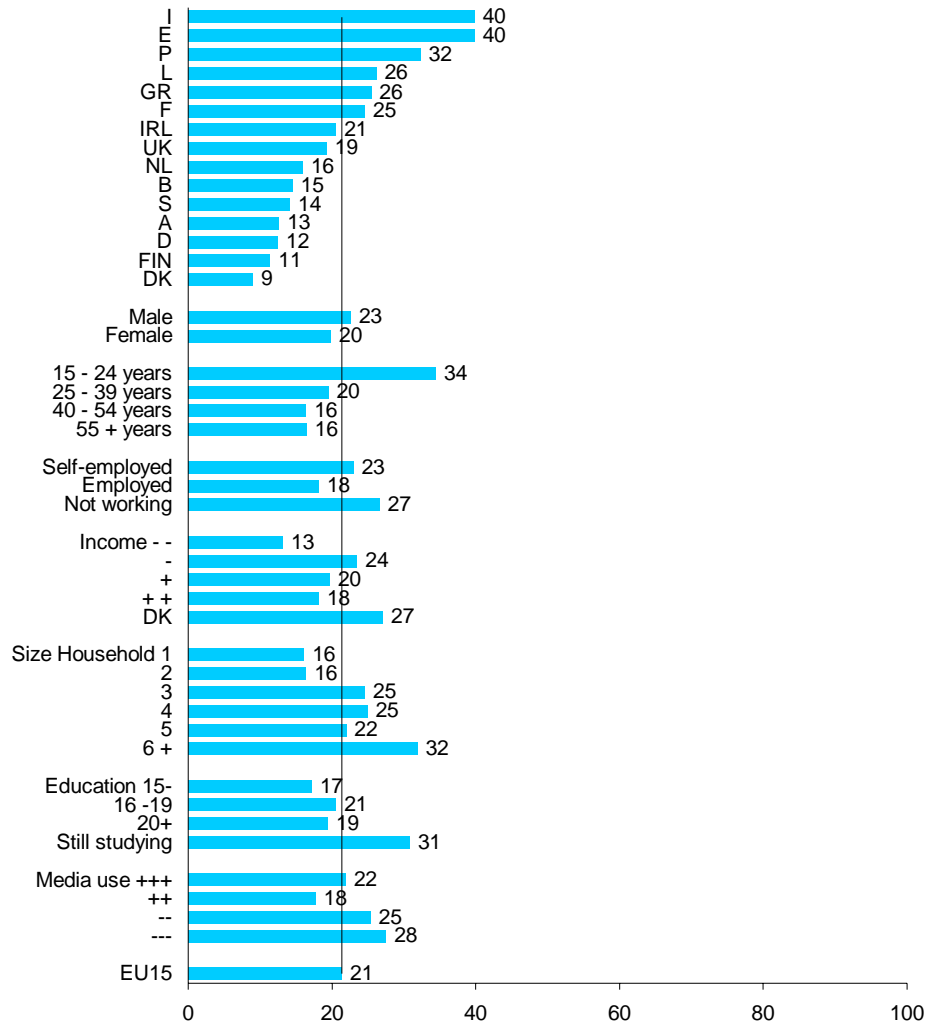
Figure 70: Ways to improve speed of connection

Base: Internet users (n=3,069)

A faster modem and an ISDN line are considered by one Internet user in five to speed up connection. An ADSL connection or a connection through the TV cable network would be considered by less than 10 per cent.

6.2.1. Faster modem

Figure 71: A faster modem to speed up connection

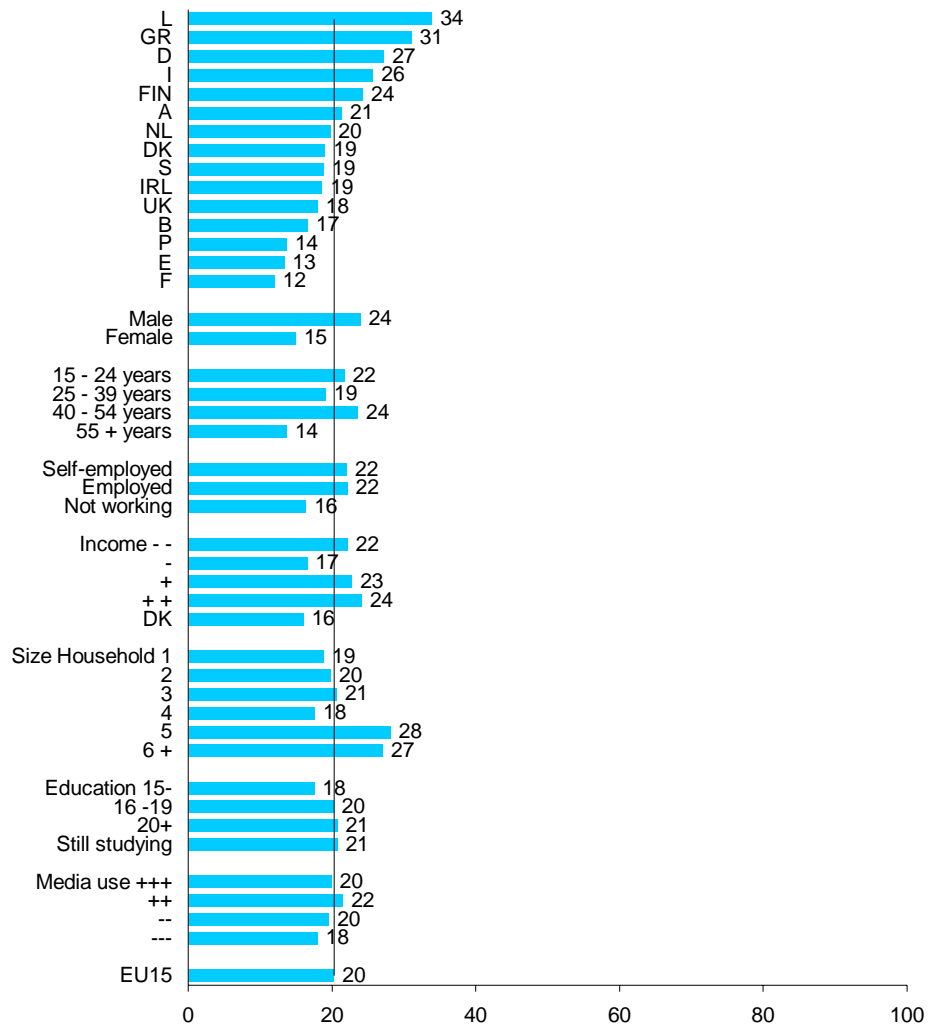


Base: Internet users (n=3,069)

Four Internet users in ten would consider a faster modem in Italy and Spain, while that proportion falls below 10 per cent in Denmark. Students and younger users as well as users living in large families are significantly more inclined toward that solution than average.

6.2.2. ISDN

Figure 72: ISDN to speed up connection



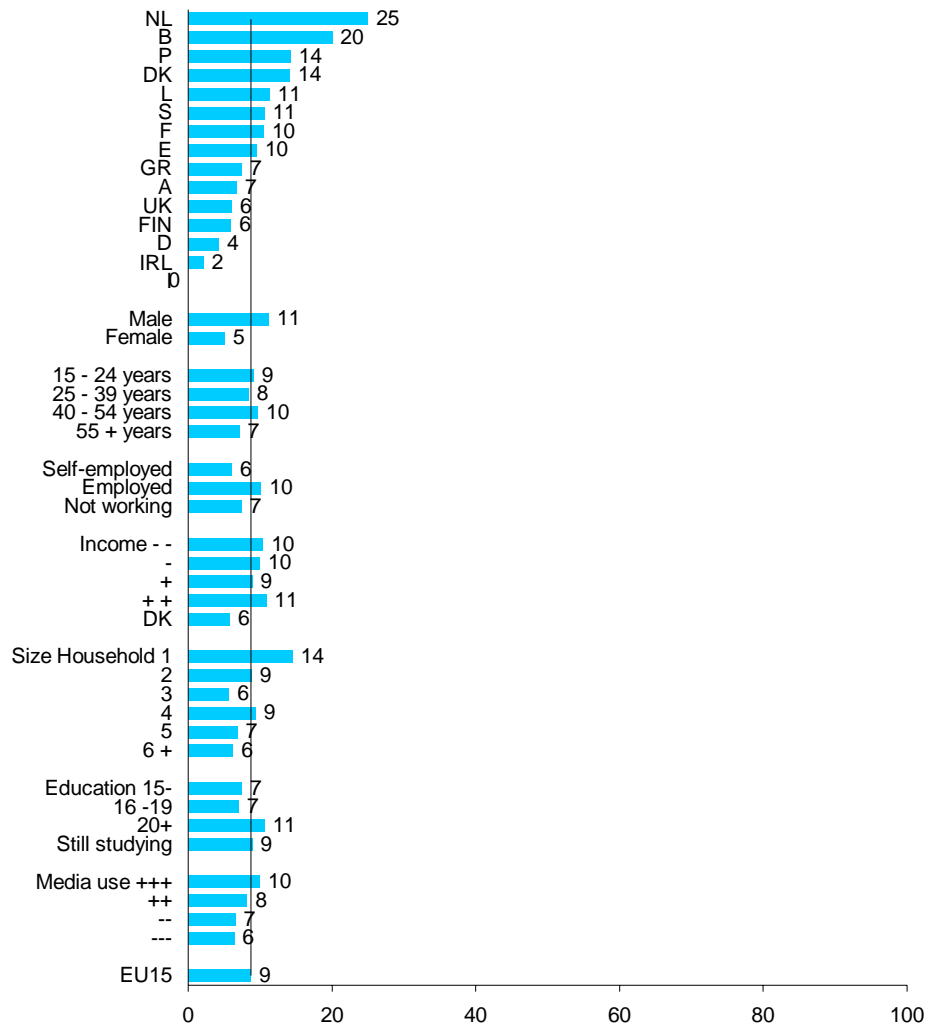
Base: Internet users (n=3,069)

Men are much more open to ISDN than women. International differences are significant as well: less than 15 per cent of Internet users would consider ISDN to speed up connection in Portugal, Spain and France, while that proportion rises to over 30 per cent in Greece and Luxembourg.

A further set of questions queried specifically reasons for not having an ISDN line (see below, see ISDN, p. 77).

6.2.3. Cable modem

Figure 73: TV cable modem to speed up connection



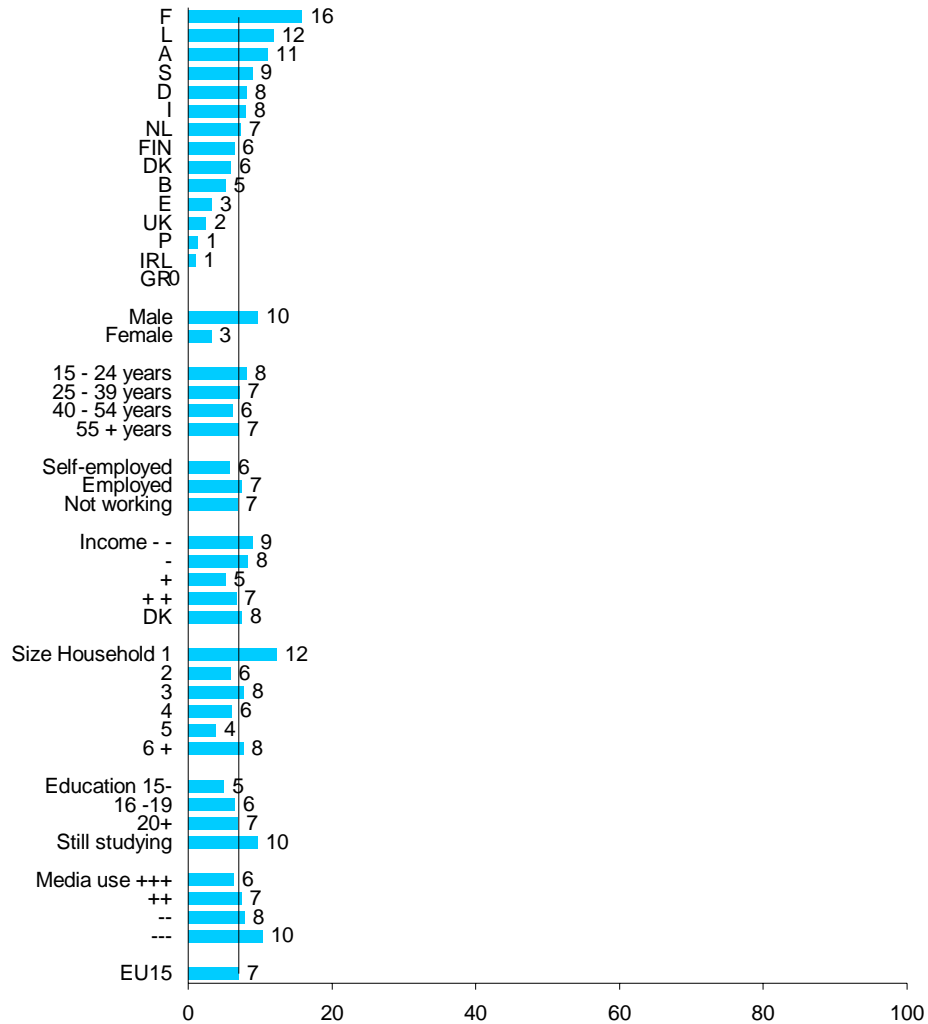
Base: Internet users (n=3,069)

The Netherlands and Belgium show significantly higher proportions of Internet users considering cable modems, which is consistent with the fact that these two countries also show the highest penetration of cable television in Europe.

Men are more than twice as numerous in proportion than women to consider cable modem. Internet users living in single households are also very inclined towards cable modems.

6.2.4. ADSL

Figure 74: ADSL to speed up connection



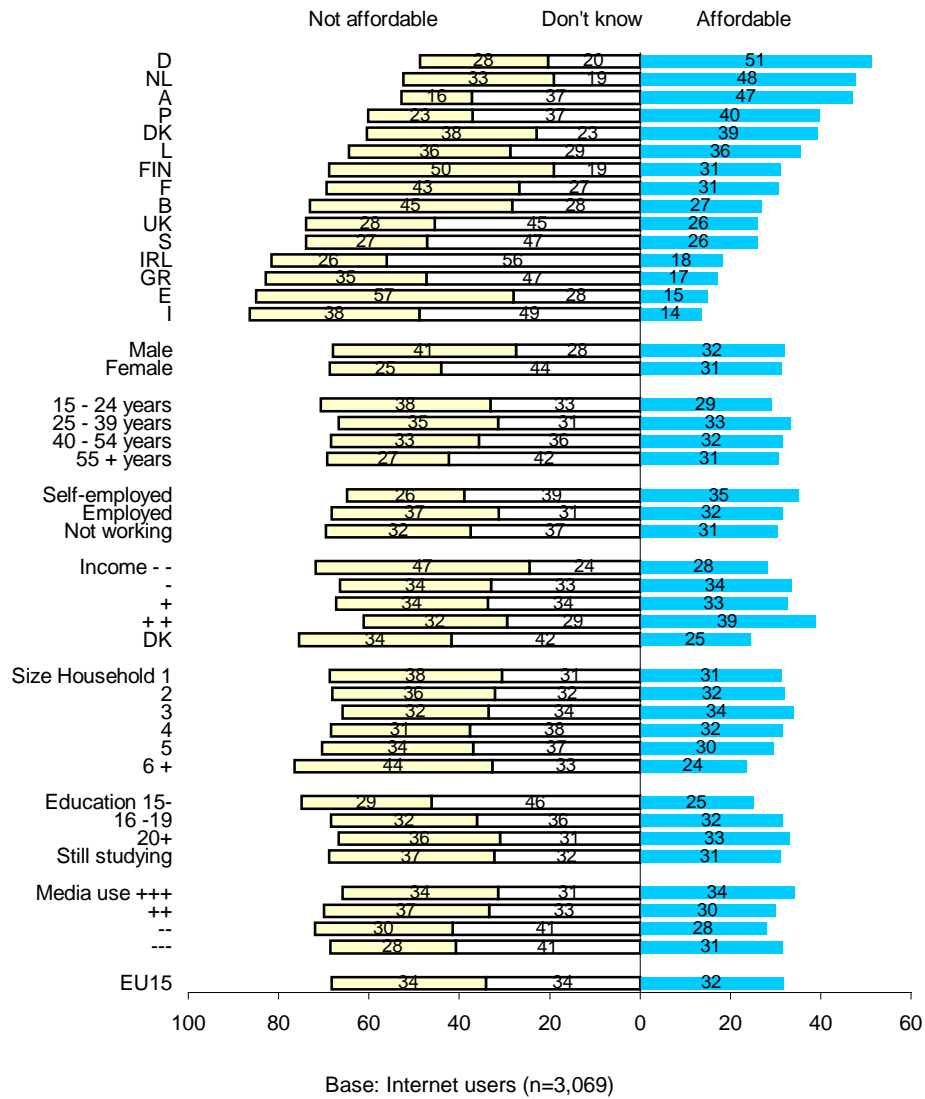
Base: Internet users (n=3,069)

The proportion of male Internet users considering ADSL to speed up connection is more than three times that of women. Users still studying or living in a single household also show higher proportions.

6.3. Affordability of high-speed connections

An additional question queried whether Internet users found high speed connections such as ISDN, cable or ADSL affordable or not.

Figure 75: Affordability of Internet high-speed connections

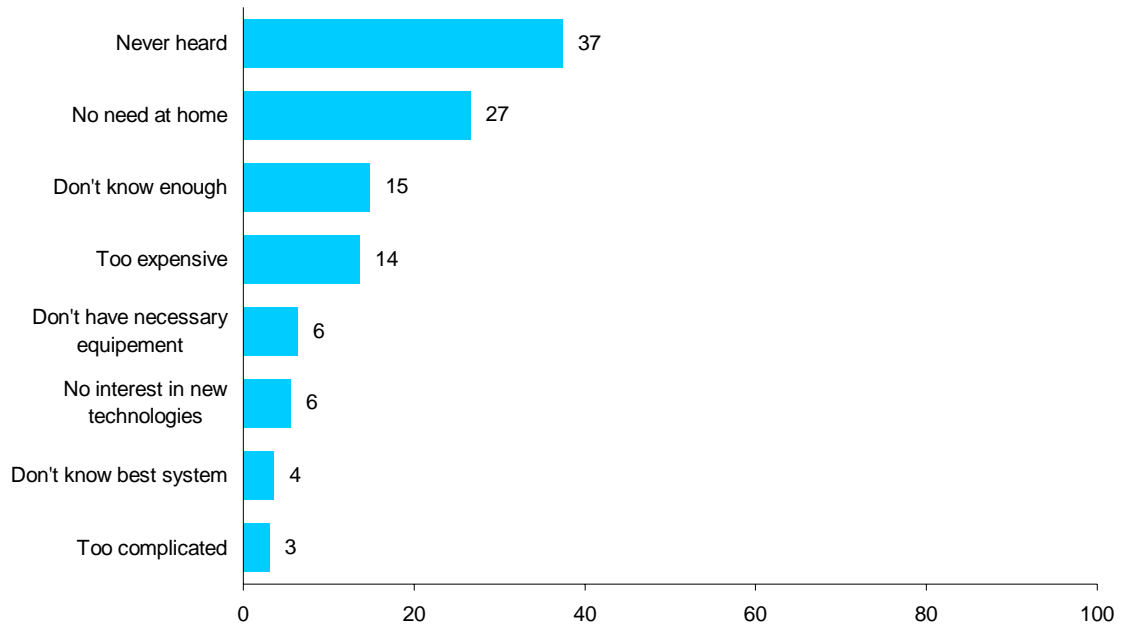


Respondents break evenly in three groups of equal importance: one third find high speed connections affordable, another third find them not affordable, while a last third does not know. Affordability opinions vary from 14 per cent in Italy to over 50 per cent in Germany. Proportions of "don't know" also varies considerably between 20 per cent or less in Germany, the Netherlands and Finland, and 56 per cent in Ireland.

Gender impacts more noticeably the "Not affordable" and "Don't know" answers. "Don't know" answers increase with age and decrease with level of education. Unsurprisingly, higher incomes are more likely to find high speed connections affordable.

6.4. ISDN

The present study examined ISDN in different ways: ownership and use (see Figure 12, p. 14), interest and intention to purchase (p. 25), as a way to speed up Internet connection (see Figure 72, p. 74). Additionally, the survey queried among non users reasons for not having an ISDN line. Note that this question was asked to all respondents not having an ISDN line at home (unlike previous questions asked only to Internet users).

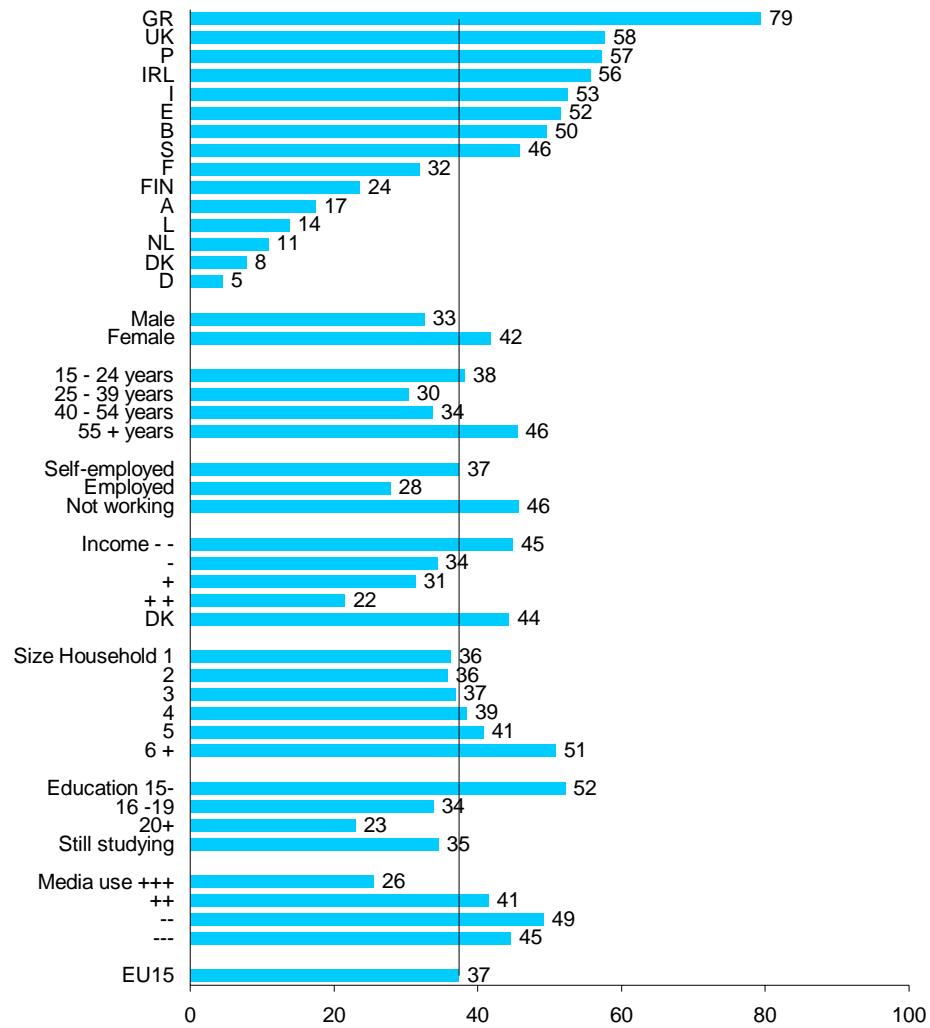
Figure 76: Reasons for not having an ISDN line

Base: those not having an ISDN line (n=15,180)

Over one third of those not having an ISDN line at home have simply never heard of it, while 15 per cent feel they don't know enough about it. A little over a quarter feel they have no need for ISDN at home and 14 per cent find it too expensive.

6.4.1. ISDN awareness

Figure 77: Never heard about ISDN

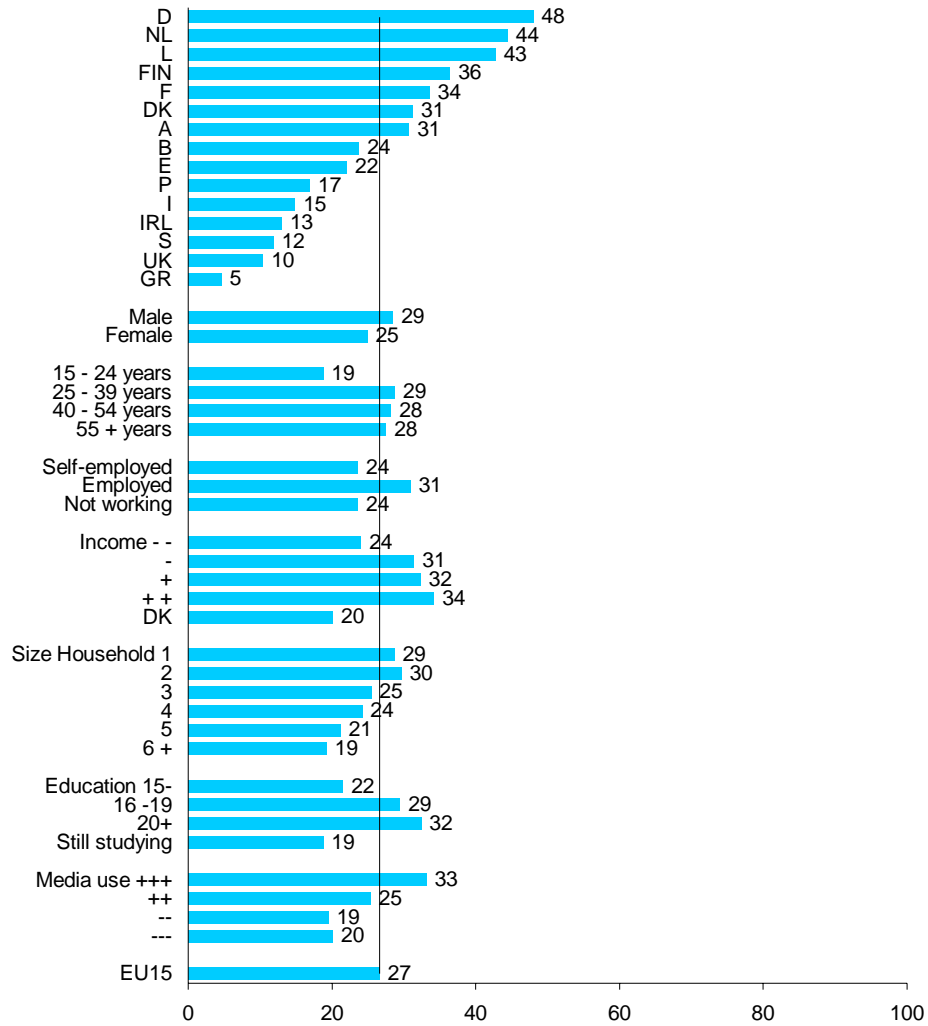


Base: those not having an ISDN line (n=15,180)

ISDN awareness varies dramatically across Europe. Only 5 per cent of those not having an ISDN line in Germany have never heard of it, while that proportion jumps to nearly 80 per cent in Greece. Men are better aware than women, as are 25-39 years of age, higher levels of income and education and heavier exposure to news media.

6.4.2. Perceived need

Figure 78: Do not need ISDN at home

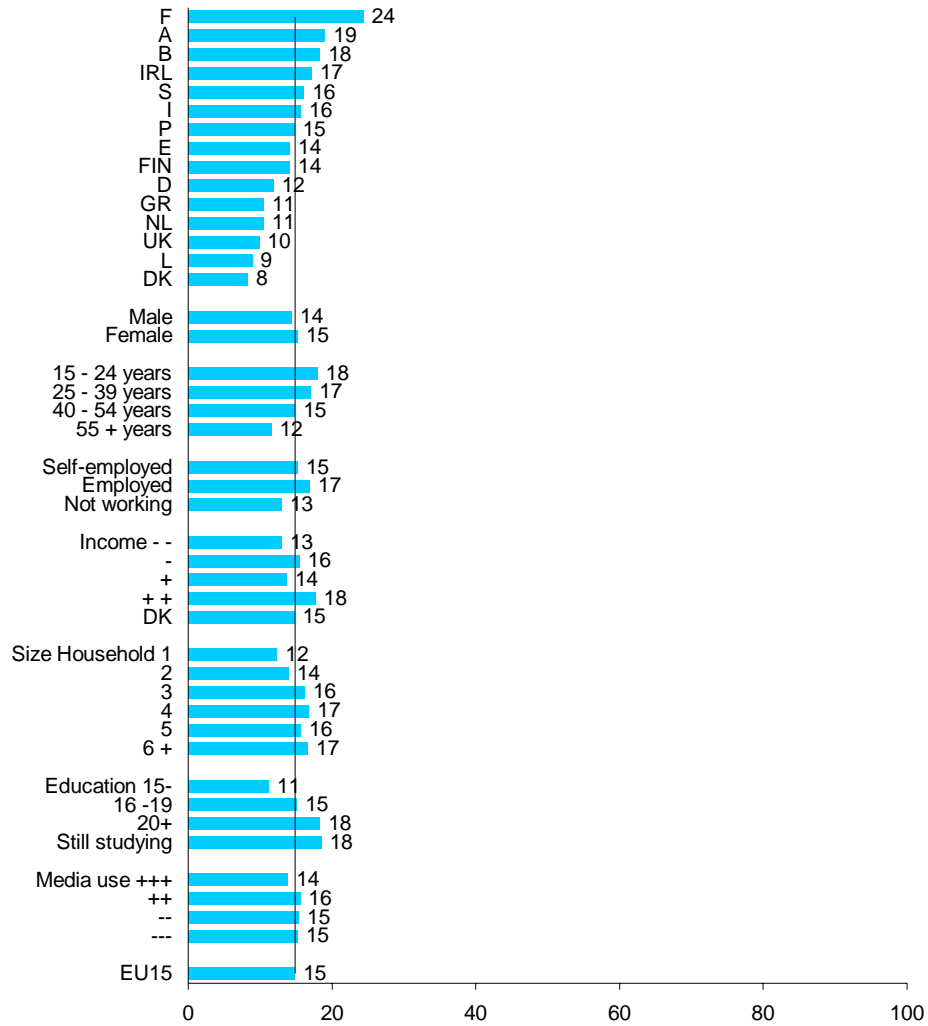


Base: those not having an ISDN line (n=15,180)

The absence of need for ISDN achieves radically different scores among countries, between 5 per cent in Greece and nearly 50 per cent in Germany. This feeling increases with income and level of education.

6.4.3. Lack of information

Figure 79: Don't know enough about ISDN



Base: those not having an ISDN line (n=15,180)

The lack of information about ISDN is comparatively rather homogeneous across countries and demographic groups. The feeling of lack of information achieves scores ranging from 9 per cent in Denmark to nearly 25 per cent in France. The lack of information decreases with age and increases with level of education.