Who is left behind by digitalisation? Characterising the digital divide in Spain

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SUNDAY, 16 JANUARY 2022

15:30-16:45

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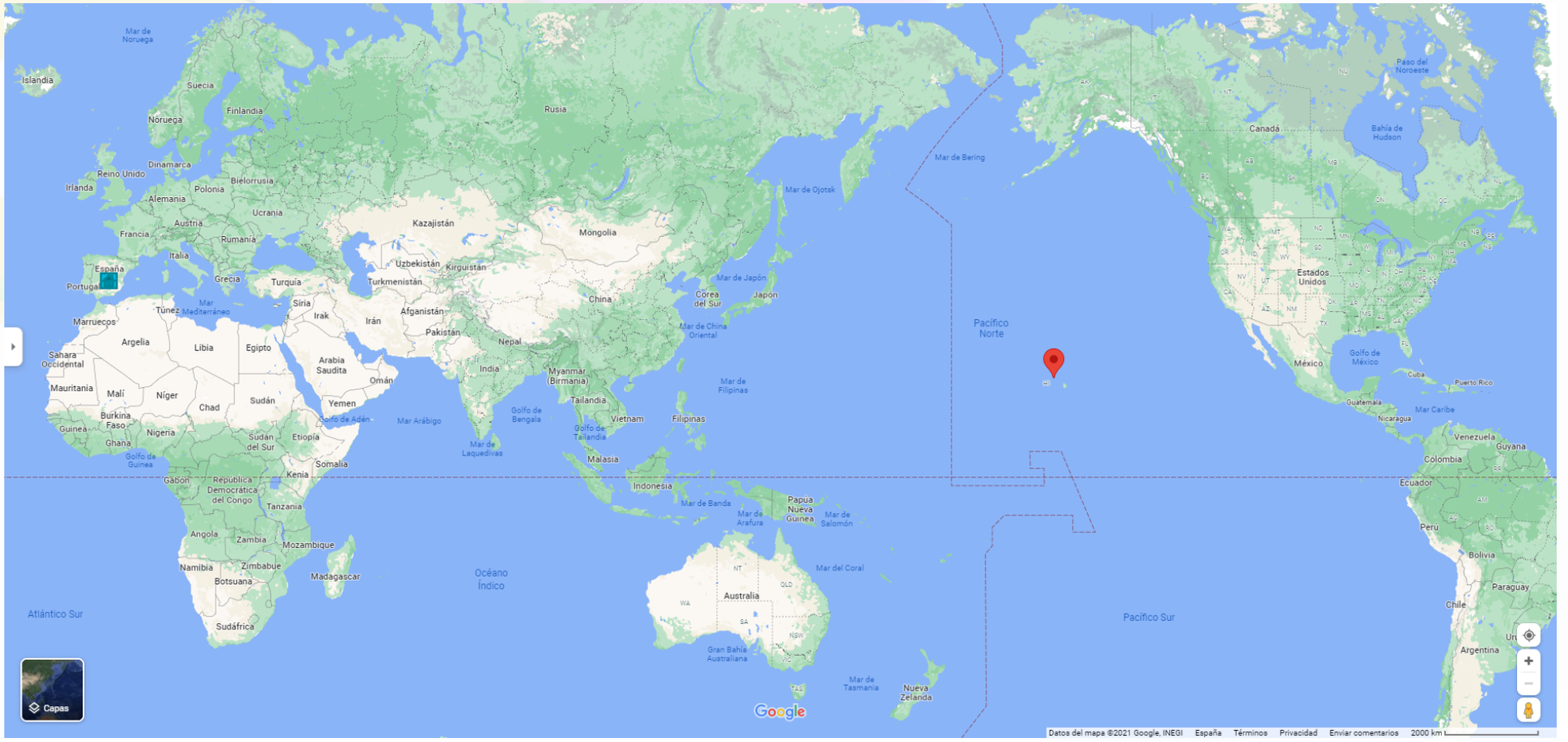
Outline

- Introduction
- Data collection and methodology
- Results
- Conclusions
- Policy recommendations

Introduction

- In a digitalised word, people do…
  - ❑Not have the same level of access to ICT
  - ❑Not not have access to devices in the same way
  - ❑Not have the necessary skills to use these devices
- Gaps exist shaped by age, gender, geography, employment etc.
- Covid-19 pandemic has forced
  - ❑Use of digital technologies
  - ❑Work from home
  - ❑Study online
  - ❑…

Where are we?



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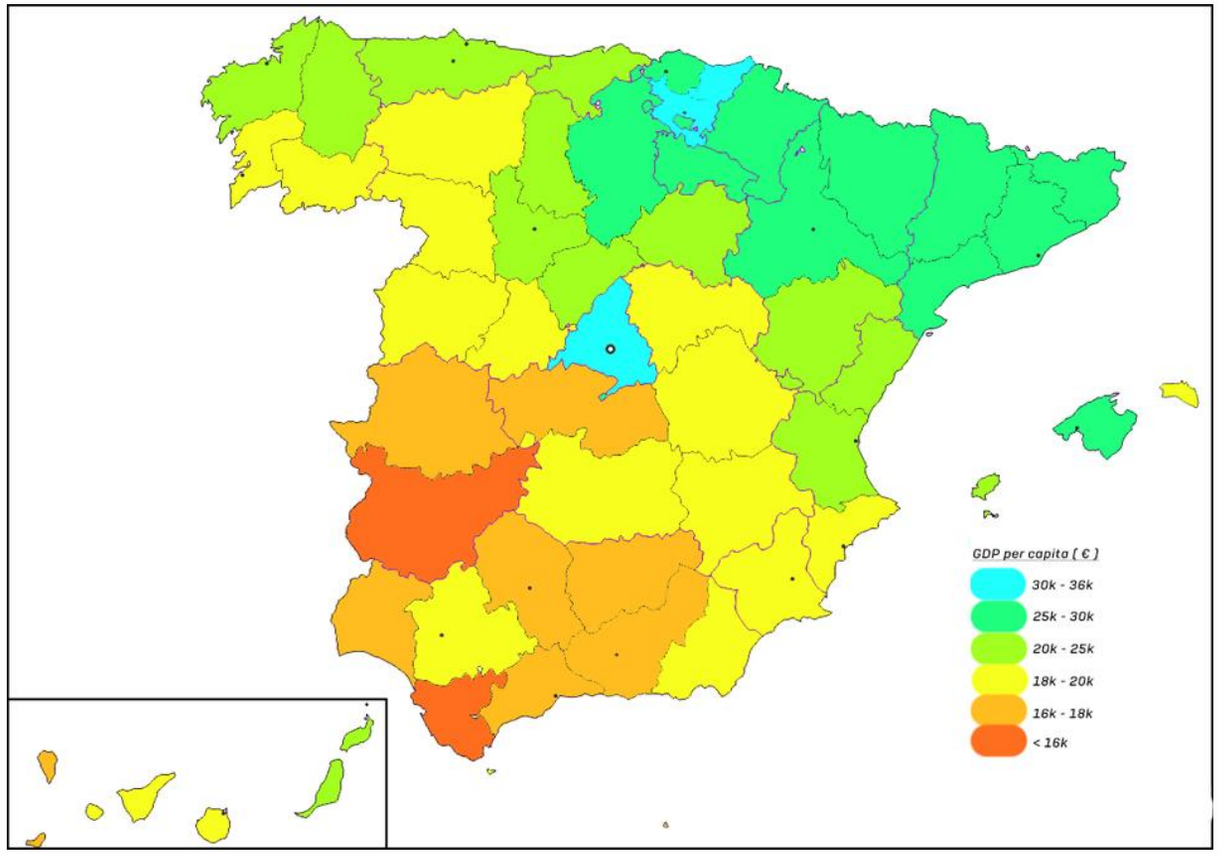
Spain


Mar Cantábrico
FRANCIA
OCÉANO ATLÁNTICO
PORTUGAL
Mar Mediterráneo
Asturias
Cantabria
País Vasco
Navarra
La Rioja
Galicia
Castilla y León
Aragón
Cataluña
Madrid
Castilla-La Mancha
Extremadura
Andalucía
Murcia
Baleares
Islas Baleares
Canarias
Santa Cruz de Tenerife
Las Palmas
Ceuta
Melilla
150 km
100 mi


GDP per capita [€]
30k - 36k
25k - 30k
20k - 25k
18k - 20k
16k - 18k
< 16k

Data and methodology

- Survey: Trends in the digital society during the Covid-19 pandemic
- Undertaken during March 2021
- 3,014 people were surveyed across Spain

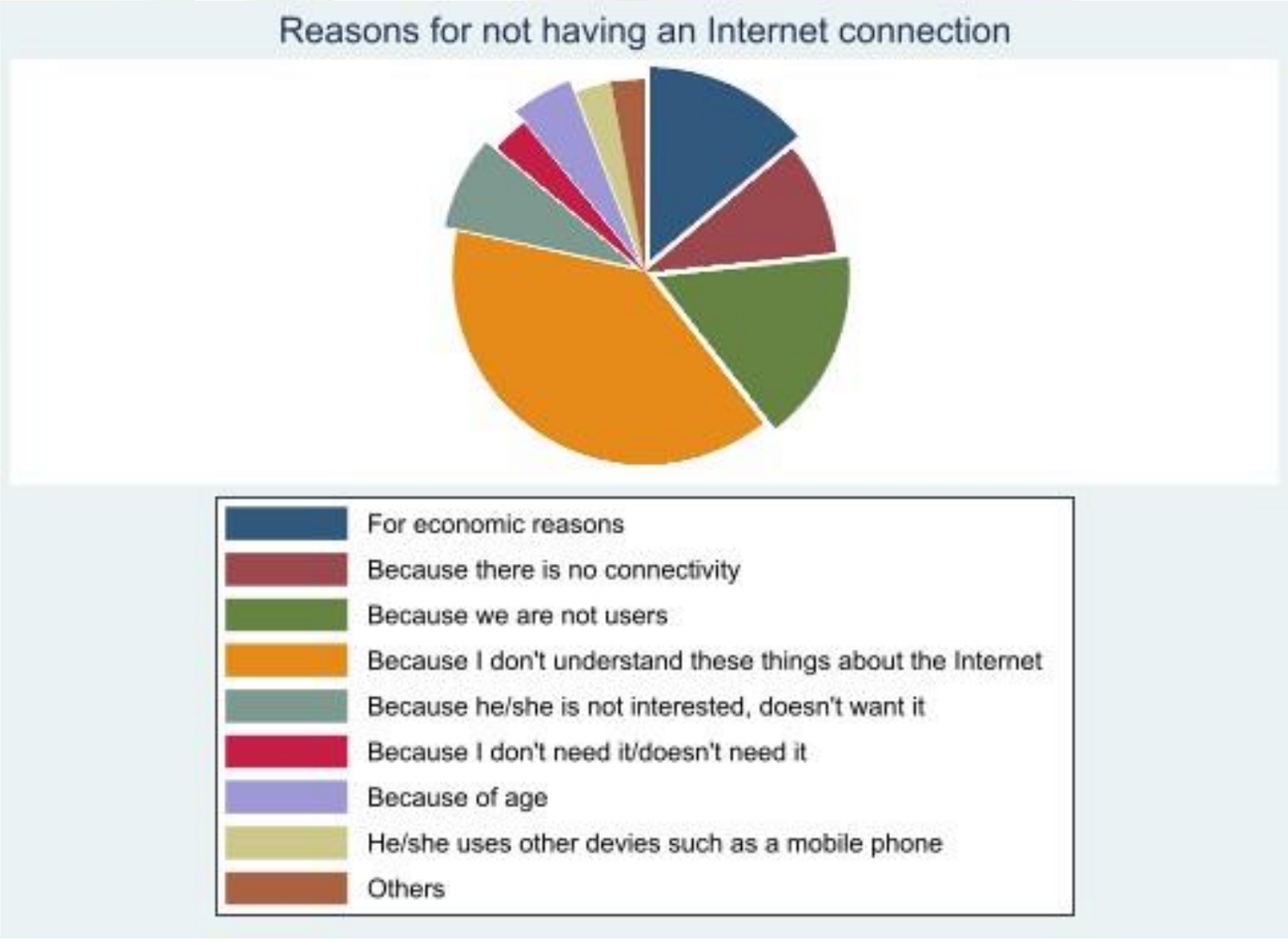
- Logit model is used to answer the question about if people have or not have Internet Connection at home.
- Profile of people who have digital divide.

Internet connections at home during 2020

	Coefficient	Odds ratio	Coefficient	Odds ratio
Male	.127	1.136	.165	1.179
Age	-.487***	.613	-.493***	.610
Social Class	-.434***	.647	-.432***	.648
Occupation	-.209***	.810	-.1975***	.820
Formation	.111***	1.118	.117***	1.124
Small Town			-1.220***	.295
Town			-1.458***	.232
City			-.950***	.386
Big City			-.824**	.438
AACC's Population			.035**	1.03
Constant	5.754***	315.5	6.137***	462.664

n	2,593	2,593
Pseudo-R^2	0.2014	0.2197
PCPC	89.05%	89.47%
ROC	0.809	0.821

Why people do not have an Internet connection



Profiling the Digital Divide in Spain

Logit Model Results	General Digital Divide Profile	Educational and Age Barrier	Cultural Barrier	Economical and access Barrier	Other kind of Barriers
Women	✓	?	✓	?	✓
Older People	✓	✓	✓	✗	✓
Retired	✓	✓	✓	✓	✓
Unemployed	✗	✗	✗	✓	✗
Low income	?	✗	✗	✓	✗
Uneducated	✓	✗	?	✗	✗

✓	There is a relationship
?	It is not clear the relationship
✗	There is not a relationship

Educational and age barriers

- There is also an enormous difference in age, with more than 85% of respondents who fall into this problem being over 65 years old. The age problem is also reflected in the employment status. All are retired or inactive, with homemakers being the most frequent group.
- In terms of education and social class, individuals are more heterogeneous. Individuals with secondary school, high school and higher education, university or vocational training predominate.
- There is also a large distribution among individuals who consider themselves middle or lower class.
- These are fairly educated and affluent people who, despite this, do not have an Internet connection because they do not understand how it works. This is understandable considering their age.

Cultural barrier

- This refers to the digital divide derived from not having an interest or not needing the Internet. It is a related to people who have not lived with the Internet and are not use to using it on a daily basis.
  - Women (60%), older people (74%) with higher education (60%) and retired people (69%).
  - Therefore, we can deduce that there is a gender and age gap related to interest in digital, predominantly in older women, as it is seen to be unrelated to younger women, who say they are very interested.
  - However, looking at the economic profile, there appears to be no relationship between interest in the Internet and income.
- These trends are repeated among those who say they "do not need the Internet" which are again older and highly educated women. Yet, in this scenario, more people of working age and employed (19%) say they do not need the Internet—demonstrating a rather significant digital divide in a younger age group.

Economic and accessibility barrier

- The economic gap differs from the profiles shown above, as it affects people with low purchasing power, primarily those who are retired and unemployed.
- This situation is aggravated in the case of women who are older and find it more challenging to enter the labor market. This situation is exacerbated by multiple discrimination, lack of work and income, aggravated by age and gender.
- It is also worth noting that the most common age profile, in this case, is that of 45-65-year-old, people who already have difficulties in re-entering the labor market.
- On the other hand, those who do not use the Internet for reasons of inaccessibility are mostly men of very different ages and professional situations. There are employed young men who do not have an Internet connection at home.

Other barriers

- Individuals who do not have the Internet for a reason different to those studied above are pretty similar to the profile shown in the model, along with the gender difference shown in the previous profiles. They are mostly older, retired women with higher education.

- However, another group worth mentioning is those people who do not have Internet at home but have Internet-enabled devices. These are predominantly young working women who are looking for more creative ways to stay connected despite not having a connection at home.

Discussion

After statistical analysis and interpretation of the profiles, we found:

- The main difference lies in the gender gap. Nonexistent in the statistical model, it is found in each demographic profile studied for the different reasons for the digital divide.
- The importance of age in the digital divide is confirmed. The most affected groups are the elder and retired people, predominant in all profiles except those related to the digital divide for economic reasons.
- The importance of the economy. A lack of resources is a direct cause of the digital divide. So is unemployment, with the digital divide being higher among the unemployed—a highly vulnerable group.
- Demographic analysis shows that educational level is not a risk factor. The digital divide affects people with more and less education equally. Therefore, education in using information tools, e-skills are crucial.
- In addition, accessibility is essential. It was already relevant in the statistical model, and it can be seen in the demographic analysis that there are areas of Spain that are isolated from the Internet.

Conclusions

- There are multiple barriers to using Internet: educational, economical and age related.
- With those who are leas educated, poorer and older being more likely to experience a digital divide.
- Accessibility issues remain, with a lack of connectivity in the smaller municipalities.

Policy Recommendations

- Repopulate those areas which are already sparsely populated and maintain those viable population levels that exists.
- Develop initiatives to help older people to develop the relevant skills to use the Internet.
- Try to stop gap of digital divide between men and women
- A combination of training and economical subsidies.

Thank you

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