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A new digital gap in internet usage between rich and poor people has been detected

Social networks are used more often in poor neighbourhoods than in affluent neighbourhoods, while the latter tend to consume more information from traditional online media. This is one of the conclusions of a scientific study undertaken by researchers at the Universidad Carlos III de Madrid ([UC3M](#)), the **IMDEA Networks Institute**, and Orange Innovation which analyses the relationship between internet usage and variables such as education, income, or inequality in a specific area.

The digital gap in terms of accessing technology and the internet is minimal in developed countries, given that nearly everyone has a smartphone. When this initial gap is narrowed, the “**usage gap**,” as these researchers have named it, appears. This gap represents how different social classes use the internet differently due to their economic status.

Generally speaking, “**higher levels of news consumption via traditional online media is associated with higher purchasing power** and higher levels of education. On the other end of the spectrum, higher levels of Facebook consumption are associated with lower purchasing power and lower levels of education,” notes one of the study’s authors, Iñaki Úcar, researcher at the UC3M-Santander Big Data Institute.

Researchers highlight some of the possible consequences of this difference in use: “As platforms, such as YouTube, or social networks, such as Facebook, have been used to spread misinformation, and the relative use of these platforms is higher in areas where the population has lower levels of education and lower-income, the effect of this misinformation is likely to have affected these areas more,” explains Esteban Moro, from the UC3M’s Department of Mathematics.

The paper, recently published in the Journal of The Royal Society Interface, uses **anonymous aggregated telephone data in France** to predict census variables. Researchers believe that, due to globalization, these results could apply to countries with similar cultures and of similar wealth, such as countries around Europe and North America.

The digital gap in usage that they have detected is particularly large for certain types of services, such as social media, audio and visual streaming, email, and consumption of news content. “This is a rather surprising result, especially given that **the analysis has been carried out in dozens of cities in a developed European country**, where it could be assumed that digital gaps would have been closed due to the omnipresent availability of access to mobile broadband,” notes another of the study’s authors, [Marco Fiore](#), a researcher at the IMDEA Networks Institute.

In this study, scientists have demonstrated, quantitatively and on a large scale, the validity of hypotheses on the heterogeneity of mobile services usage by different socio-economic groups for the first time. “Prior to our study, these hypotheses had only been validated using qualitative studies on small groups of individuals. Demonstrating that **this phenomenon is valid for hundreds of thousands of users is an important step forward**,” concludes Esteban Moro.

Source(s): IMDEA Networks Institute

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IMDEA Networks Institute, promoted by the Regional Government of Madrid, is a research organization on computer and communication networks whose multinational team is engaged in cutting-edge fundamental science and technology. As a growing, English speaking institute located in Madrid, Spain, IMDEA Networks offers a unique opportunity for pioneering scientists to develop their ideas. IMDEA Networks has established itself internationally at the forefront in the **development of future network principles and technologies**. Our team of highly-reputed researchers is designing and creating today the networks of tomorrow.

Some keywords that define us: 5G, Big Data, blockchains and distributed ledgers, cloud computing, content delivery networks, data analytics, energy-efficient networks, fog and edge computing, indoor positioning, Internet of Things (IoT), machine learning, millimeter-wave communication, mobile computing, network economics, network measurements, network security, networked systems, network protocols and algorithms, network virtualization (software defined networks – SDN and network function virtualization – NFV), privacy, social networks, underwater networks, vehicular networks, wireless networks and more...

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