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### Abstract

In this article, we present data from a survey on the characteristics of the information society in four Central and Eastern European countries. The 25-minute representative telephone survey was conducted in Hungary, Romania, Poland and the Czech Republic. The research covers internet usage habits, actors of online trust, fear of manipulation and news consumption habits, and last but not least, general attitudes towards the internet. The four databases are available in English and the four questionnaires are available in the language of the country in which they are annexed to the article. The main variables of the database are presented in the article.

**Keywords:** online trust, awareness, internet usage, Czech Republic, Hungary, Poland, Romania

## 1 Introduction

The spread of the information society and digital culture has changed our world. New forms of communication and cooperation have emerged, and our social subsystems are fundamentally changing. The rapid development of the information society in each of the countries studied is undeniable, but of course important differences can also be observed. In order to investigate the perceptions of a society in the online space, we needed to have something to compare them with. To this end, we compared four European information societies with many similarities but also several differences. Comparable research into the digital culture of the four countries on the same platform does not exist in this depth. The four countries were selected by comparing Eurostat data and reviewing the most important academic literature on them. (European Bank, 2020; Mirke, Kasparova, & Cakula, 2019, European Commission, 2019; Statistical Office of Poland, 2020; Szarek-Iwaniuk & Senetra, 2020).

Online platforms and communication services are now at the centre of public discourse, and for good reasons. First, on a rather descriptive level, these services have become not just widespread, but an indispensable part of our personal and social life. People

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spend more and more time in the online world, because they increasingly manage their lives through digital services. Second, on a more analytical level, the new infocommunication technologies have substantially changed some of the central elements of our everyday lives: how we contact each other, how we communicate in private and in public, how we work, how we travel and how we get information. While it is important to track the trends of internet use in different generations and in society as a whole, it is also becoming crucial to look beyond the patterns of use, and to attempt to understand people's attitude towards these services. Our research focuses on the latter and identifies key elements of this attitude: the extent to which people trust internet services, how consciously and prudently they navigate online, and how aware they are of possible risks. Trust, awareness, and alarm: these features are key not only to gain a deeper understanding of societies running online, but also to identify the reasons why regulators bear responsibility in the formation of the digital world.

Hungarians are the most afraid, among the populations surveyed, of online communication having a negative effect on their personal relationships. According to 60.5% of the total Hungarian population, online communication degrades the quality of personal relationships. This view was held by 50.7% in the Czech Republic, 38.9% in Poland and only 29% in Romania. At the same time, the region is uniform in its judgement on the benefits of the Internet. The evaluation of new communication opportunities and the positive impact of digital culture on society did not differ significantly from country to country.

Facebook has a remarkably strong market position among social media platforms, and its position is the most dominant in Hungary. It is typical for the whole region that, compared to Facebook, the other social media interfaces hardly get a kick at the ball, and of the four countries, this is the most striking in Hungary. While in the Czech Republic and Poland an age gap can be identified in the use of Facebook, in Hungary and Romania the older age groups are also definitely present on the platform.

A high degree of awareness about internet use is not typical in any of the countries examined. Although people are aware of the dangers to be found online, they do not defend themselves or their families from them through training or filtering software. The same is true regarding data protection: the majority of the respondents were aware of the importance of data protection and is distrustful of online data controllers, yet they do not do anything about the security of their data.

Significant differences can be observed between the countries of the region in terms of trust in information sources and fear of manipulation. A comparative analysis of the four countries revealed significant differences with regard to fear of manipulation and trust in the information received. The vast majority of the Hungarian population is not afraid of being manipulated by specific actors in the online world. Hungarian behaviour in this regard is most similar to that of Romanian users. In Hungary, people are most distrustful of advertisers (23%) and in Romania of politicians (22.5%). The general fear of manipulation is higher in the Czech Republic and Poland, and the highest levels of mistrust (measured for advertisers in both countries) were also much higher (52% and 40%, respectively).

There is significant potential for development in the field of e-business and e-government among the older residents of the region. Information literacy is already satisfactory,

but there is still a long way to go in terms of levels of usage, which represents great potential for the public and business sectors in all four countries. There are also great opportunities in the field of quality-of-life improvement and preventive online services.

## 2 Methods

This study was conducted by the Institute of the Information Society of the Ludovika University of Public Service and covered four Central European countries: the Czech Republic, Hungary, Poland and Romania, with the aim of examining the characteristics of the use of information technology by the adult population in the region, mainly for communication purposes.

A telephone survey was conducted in October and November 2019, and the results are representative of the population over 18 years of age in the four countries, categorized by age, gender, education, type of settlement and region.

The questionnaire consists of 50 questions and was conducted by telephone interviews lasting twenty-five minutes. The four databases are fully comparable with each other and have been weighted for this purpose, the weight variable being found in the databases.

## 3 Description of data and variables

There are eight files attached: four data files in SPSS format (Hungary, Romania, Czech Republic, Poland) and four questionnaires in the original languages (DOI:10.5281/zenodo.8267401)

The most important variables in the data set are:

### Dimensions

TELTIP – Type of settlement

D2\_1 – Age in years

D2 – Age categories

D3 – Gender of respondent

D4 – Education – 6 categories

D5\_1 – Persons in households

D6\_1 – Children under 14 years

E1 – Do you have a computer at home?

E2 – Do you have a smartphone?

E3 – Do you use the internet wherever you have access to it (at home, at an internet café, etc.)?

E4 – What tools do you use to access the internet? (PC, laptop, tablet, smartphone)

E5 – Do you have a home internet subscription?

E6 – Do you have a mobile internet subscription?

E7 – Do you use any filtering software to protect your child/children from harmful content?

I1 – How often do you use the internet?

I2 – How often do you use the internet for the following purposes? (E-mail, chat, phone, Facebook, partner search, news, getting information for work, getting information for learning, online banking, office administration, streaming music, streaming films, online gaming, online shopping).

### **Manipulating**

I3 – how afraid are you of being manipulated by them? (Social platforms, search engines, advertisers, journalists, politicians, government, civil organizations, experts, foreign powers, influencers, friends, large companies, content produced by machines)

M3 – How much confidence do you have in the credibility of the information you receive? (Friends, TV, radio, print, social media, online news)

### **Internet usage**

I4 – Have you ever refrained from using the internet because you were worried that everything in the digital world would be left behind?

I5 – Have you ever paid for any extra facilities or premium services linked to a basically free online service? For example, Spotify or YouTube Music ad-free, Tinder extra features, Twitch subscription, premium article reading, etc.

I7 – Have you ever been harassed on the internet?

I8 – How many friends or partners do you chat with on a more or less regular basis?

K1 – How would you describe your own communication activities on social media portals?

K2 – Have you ever downloaded or shared an article or video that you knew was posted on the internet without permission, in an illegal way? What was your reason for doing so?

K4 – Have you produced or shared content online that you later regretted?

K6 – Do you share memes?

U1 – Are you using a government client gateway?

H3 – How do you watch films online?

H4 – How do you listen to music on the internet?

H5 – Do you know someone you met online and have kept in touch with in person?

### **Facebook**

F1 – How often do you post on Facebook?

F2 – How often do you read news on Facebook?

F3 – Have you ever had a post deleted by Facebook or been temporarily banned from the service?

F4 – Were you informed of the reason for the deletion and/or blocking?

F5 – Did you request a change in the decision to delete and/or block?

F6 – What was the outcome of the application?

F7 – Have you ever adjusted your privacy settings on Facebook, eg. who can see your posts?

### **News reading**

H1 – How would you describe your news consumption in terms of the following content? (Public news, boulevard news, sport news, scientific news, general news)

H2 – Are you interested in public positions that differ from your convictions? Which of the following answers best suits you?

M2 – How often do you use the following information sources to find out about world news? (Friends, television, radio, print, social media, online news site)

### **Attitudes**

M4 – In your opinion, do you think that online/digital communication opportunities and social portals enhance or diminish the quality of personal relationships?

M5 – Get a lot of information about your contacts easily and at once, easy to contact people you know and get feedback quickly, There is a fear that direct/face-to-face contact will be replaced by online contact, Too much time taken up by online communication, using social networking sites

M6 – the internet is advantageous because I can get important information quickly and directly b) the internet is risky because I can get uncontrolled information, the internet is beneficial because ordinary people can share their views with the social public b) the internet is risky because views that are dangerous to social coexistence can be freely disseminated, I like public news and events to reach me directly b) I like public events to reach me with analysis and evaluation, the activity of newspapers and journalists is a very important part of the social dialogue b) in the age of the internet, the need for newspapers and journalists is decreasing, anonymous expression of opinion/commenting on the internet is a good thing, because it allows many people to express their opinions freely b) anonymous expression of opinion/commenting on the internet is harmful, because it encourages irresponsible statements

M7 – Overall, do you see the rapid development of digital services and online activities as an opportunity or a risk for individuals and society?

### **Data awareness**

M14 – If you were offered a very attractive free service, which of the following details would you provide in order to qualify? (Address, tax number, age, plate number, bank account number, bank card number, information about traveling, information about health)

M15 – How secure do you feel this personal data is in the following areas? (Public sector, Facebook, Google, Your own smartphone operating system, On your own computer, With your account-holding bank, Internet advertising portal, Your telecoms provider, A company/portal offering online services (e.g. food delivery, hosting, travel arrangements, etc.), medical office, car service, local government).

### **Competing interests**

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.

### **Ethics Statement**

The source questionnaire and data collection projects are ethically approved by the ESS ERIC Research Ethics Committee. Informed consent from respondents was obtained (European Social Survey, n.d.).

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