

Gender Differences in E-Society: The Case of Slovenia

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Abstract—The ever-increasing presence and use of information and communication technology (ICT) influences the different social relationships of today's society. Gender differences are especially important from the viewpoint of modern society since ICT can either deepen the existing inequalities or diminish them. In a developed Western world, gender equality has been a well-focused area for decades in many parts of society including education, employment or politics and has led to a decrease in the inequality of women and men in these and other areas. The area of digital equality, or inequality for that matter, is one of the areas where gender differences still exist in many countries of the world. The research presented in this paper focuses on Slovenia, one of the smallest EU member states, being an average achiever in the area of e-society according to the many different European benchmarking indexes. On the other hand, Slovenia is working in an alignment with many European gender equality guidelines and showing good results. The results of our research are based on the analysis of survey data from 2014 to 2017 dealing with Slovenian citizens and their households and the use of ICT. Considering gender issues, the synthesis showed that cultural differences influence some measured ICT indicators but on the other hand the differences are low and only sometimes statistically significant.

Keywords—Digital divide, e-society, gender inequality, Slovenia.

I. INTRODUCTION

TODAY'S society largely depends on ICT, among which the Internet and the World Wide Web are playing a major role. The term information society first appeared in the distant 80s [1] and later gained popularity in Europe with the Bangemann Report [2]. The OECD emphasized in its Guide to Measuring the Information Society [3] that ICT has promoted profound economic and social changes over the past years or decades. On the other hand, Webster [4] warned that even the term information society might be underdeveloped or imprecise, when reviewing the various definitions. He warned that the qualitative and quantitative measures of information society are not clear, especially distinguishing it from previous types of society. Salvaggio [5] even warns that without an adequate conception of the nature of the information society, it will be difficult to project social problems within it. Nevertheless, ICT is playing an increasingly profound role in the personal and business lives of people. However, society is not homogeneous in this sense. Just as there were differences within the societies of the past, these inequalities persist today [6], even in the developed and democratic world. And

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precisely because of the importance of ICT in today's world that we need to think about it, because the convergence of digital technologies, where “digital by default” is the mainstream, makes the importance of this issue even greater [7, p. 270]. The digital divide, defined as an important parameter of the information society, focuses on differences in the access to and use of information technology and e-services [8, p. 27]. Some authors define the characteristics of the digital divide as those that separate today's society from the industrial society of the past [9]. But as in the industrial society, the gender divide remains present in the information society too. It is based on the idea that women have limited access to ICT and therefore use it less, as well as that women also have less digital education compared to men. According to Suwana [10], this arises from the assumptions that women are technophobic, lack interest and lack technological capabilities.

This paper focuses on today's information society – specifically on Slovenia, whose current information society status is presented through an analysis of empirical data. Firstly, we outline the background of information society and gender issues and continue with an in-depth description of the situation in Slovenia considering these topics. We link the topic of digital inequality to the current situation in Slovenia. The next chapter includes an empirical research report and an analysis of data from surveys of the years 2014-2017, using various statistical methods to detect the influence of gender. In the discussion section, we argue that the results show a situation that could be valid for many developed countries. The influence of gender is diminishing, but some important divides remain and should be addressed. We also argue that the results provide information to policy-makers to enable them to take the right steps forward towards an all-inclusive information society.

II. INFORMATION SOCIETY, DIGITAL DIVIDE AND GENDER ISSUES

The OECD [11] defined the information society in terms of a conceptual model of the relationship between supply and demand, where the supply side is represented by the IT sector of suppliers, with a clear influence on productivity and GDP, while the demand side is actualised through the use of IT and e-services by citizens and the public and private sectors. Webster [12, p. 10] saw the information society through a technological, economic, occupational, spatial and cultural prism, sharing the conviction that quantitative changes in information are bringing about this qualitatively new kind of social system. Misuraca et al. [13] claim that the information society emerged from IT use in the realm of firms and then

became broadly pervasive in the whole of society, with such use being focussed on the socio-economic impacts. But soon enough, researchers also started focusing on the new effect of the information society known as the digital divide.

The first research on the digital divide was oriented toward the so-called first level of the digital divide, i.e. the unequal access to information technology and the internet or a border between those that have and those that have not, set in the direction of technological determinism [14]. The second level comprises differing levels of digital skills, classified by Van Deursen et al. [15] as operational and navigation information, as well as social, creative and mobile skills. In recent years, skills in the safe and secure use of ICT are also becoming more crucial, since more digitally skilled people take more risks, especially among young "digital natives" [16].

Early studies on the digital divide showed that access to technology is lower for women, the rural population, older generations, and those with less knowledge and income, which also applied to the developed parts of Northern and Western Europe even at the beginning of the 21st century [17]. But according to EUROSAT, there are currently some 250 million fewer women online than men in the European Union, and the gap is actually widening (from 11% in 2013 to 12% in 2016) [18]. Even in the field of the mobile technology, the GSMA report shows that women in low- and middle-income countries are, on average, 10% less likely to own a mobile phone and that even when women do own mobile phones, there is a significant gender gap in usage, particularly for mobile internet [19]. Hilbert [20] found that the gender gap in the accessibility and use of ICTs also increases the existing gender inequalities in the daily life of women in developing nations in the areas of employment, education, health and economic sectors.

One of the important factors of the gender digital divide in the information society is cultural background. Even young people today perceive ICT workers in a masculine portrayal as shown by the case of Spain [21]. In one of the most gender equal countries in Africa, Rwanda, the gender digital divide still exists because of social, economic and cultural factors like lack of self-worth, self-confidence and proper education [22]. Similar reasons are detected in Indonesia where digital media literacy remains low due to inadequate education, lack of opportunities and the patriarchal system [10]. Similar results are even found in more developed nations, as detected by Drabowitz [23], who analysed data from 39 countries and concluded that the level of a country's gender inequality measured by the Gender Gap Index does not have any statistically significant effect on the gender gap in the educational use of ICT. So, the research questions addressed in this paper are:

- Does a digital gender gap still exist in Slovenia?
- Has the gender gap changed in the last few years?

III. SLOVENIAN INFORMATION SOCIETY

Slovenia is a country with a low and dispersed population density in most of its territory. Urban areas (163 communities or 3% of all communities) cover just 4% of the territory but

host 45% of the population. Over the years, Slovenia has developed and upgraded its information technology infrastructure and access and became part of the world where access to the internet no longer represents a major obstacle and we are approaching an era where people will lack internet access only because they want it that way [24]. In Slovenia today, telecommunications, road, railway and electricity companies manage a good network backbone with optical fibres, enabling fast internet connections. The coverage of the mobile broadband signal is increasing, and the minimisation of the so-called white areas has successfully included an upgrade to LTE and 4G networks. Nonetheless, according to the data of the Agency for Communication Networks and Services of the Republic of Slovenia [25], only 31.9% of the population had fixed broadband access in 2017, equal to 80.2% of households. Both indexes are below the EU average. Countries such as Germany, the Netherlands and Denmark had more than 80% of households connected to fixed broadband internet as early as 2010. However, Slovenia is ranked in the upper half of countries in terms of internet penetration.

In the latest Networked Readiness Index report for 2016, the World Economic Forum [26] ranked Slovenia in the 37th place out of 139 countries; although, with an index of 4.7 out of 6, it lags behind the best nations by a significant amount. Focusing on the subcategories of this index, Slovenia is ranked quite high in the Readiness sub-dimension (25th place) and the Impact sub-dimension (37th place), but low in the Environment sub-dimension (45th place) and Usage sub-dimension (42nd place). Considering the digital inequality area within the Readiness sub-dimension, it has a better rank for Skills (21st place) and Infrastructure and Digital Content (24th place), but a low rank for Affordability (60th place). The latest developments on the Slovenian market show that market competition, primarily on the mobile data market, may reduce prices considerably. Another obstacle in Slovenia is the bad political and regulatory environment (67th place in the Networked Readiness Index report).

The European-level Digital Economy and Society Index (DESI) 2018 ranks Slovenia in 15th place out of 28 countries [27]. Again, Slovenia achieved the lowest score for the Internet Use sub-dimension (23rd place), since the level of different online services is low, including e-banking and online shopping. The digital skills of the Slovenian population are ranked approximately the 15th best in Europe.

Considering the gender gap in different areas and according to EUROSTAT data, Slovenia is among the few EU countries that have a very low gender pay gap (less than 10%), similar to Malta, Poland, Italy, Luxembourg and Romania [28]. Considering the education availability and achievement gap, measured as "tertiary education attainment" and aligned with the Europe 2020 strategy, Slovenia achieves good results considering citizens who have attained tertiary education (i.e. who graduated from universities or other higher education institutions). This educational gender gap was -21.7 percentage points (p.p.) in 2016 (in the EU-28 it was -9.5), meaning that the proportion of women aged 30-34 that had attained tertiary education exceeded that for men by 21 p.p.

[18]. The same source states that the gender employment gap (defined as the difference between the employment rates of men and women of working age 20-64) in Slovenia was 6.7 p.p. in 2016 (11.6 p.p. in EU), meaning that the proportion of men of working age in employment exceeded that of women by 6.7 p.p. On the global level, the World Economic Forum [29] ranked Slovenia among the only six countries in the world to have fully closed their gaps in both the Health and Survival and the Educational Attainment sub-indexes, as well as among the 10 who have closed more than 80% of the entire gender gap measured.

IV. EMPIRICAL CASE STUDY

A. Methodology

In our research, we used the data provided by the Statistical Office of the Republic of Slovenia (SURSTAT). SURSTAT conducts an all-national Community Survey on ICT Usage in Households and by Individuals each year, targeting households and citizens and using a representative sample of the population of Slovenia. The survey is part of the pan-European research, where data is gathered from all the member states and managed by EUROSTAT.

We gained access to the data from surveys conducted in 2014, 2015, 2016 and 2017. The annual questionnaires include some questions that are used in the survey every year (or every second year), intended for tracking the development of the more general area of information society development through the years, and some additional questions that focus on a specific topic, defined by that year's needs of the EU or individual country. In the year 2014, the focus was on the usage of cloud services, in 2015 on e-shopping, in 2016 on the submission and protection of personal data on the internet, and in 2017 on the usage of digital certificates by citizens and the usage of online services that use digital certificates. Most of the questions are targeted at users who are between 10 and 74 years of age and used the internet in the previous three months (or in some cases in the last 12 months).

Our first task was to analyze the questionnaires to check which questions in the surveys were unchanged throughout the years. The differences in the questionnaires between the years were mainly a consequence of the increased use of the new information technology and the advances in mobile technology and therefore questions that covered these topics. The latter caused a major shift in the way people access the internet since mobile data access became cheaper and mobile devices became more capable, cheaper and today have larger screens with a plethora of applications.

The questionnaires consisted of between 127 and 184 items, depending on the year of the survey, posed in the form of closed-ended questions. Depending on the respondent's use of the internet and its frequency, some questions are directed at those users that had used the internet in the last three months and some to those users that had used the internet in the last 12 months. Although the number of respondents that fall into the second group is low throughout the years (Table I), we based our analysis on the data of users that had used the internet in

the last three months before the time of the survey. Additionally, questions about internet use, knowledge and household accessibility were posed only to this user group.

TABLE I
 PERCENTAGE OF USERS IN SLOVENIA USING THE INTERNET ON A COMPUTER, SMARTPHONE OR OTHER MOBILE DEVICE (TABLET, E-READER) REGARDLESS OF THE USAGE LOCATION

Year	2014	2015	2016	2017
In the last 3 months	71.59%	73.10%	75.50%	78.89%
In the last 3 to 12 months	2.07%	2.31%	0.94%	1.30%
More than 1 year ago	2.29%	2.46%	1.66%	2.20%
Never	24.06%	22.13%	21.90%	17.62%
Number of respondents	1611	1648	1568	1670

To check the significance of the gender differences, we used a nonparametric test [30]. We used the test of two proportions – namely the chi-square test of homogeneity. The test uses the difference between the (binomial) proportions and helps establish whether this difference in proportions is statistically significant. All the assumptions for the test were met:

- one independent variable and dependent variables that are measured at the dichotomous level,
- independence of observations,
- a sufficiently large sample size to assert the normal approximation to the binomial distribution (the minimum sample size is that each expected frequency should be greater than five).

B. Results

The results show that the number of regular internet users in Slovenia (that had used the internet in the last three months) is increasing over the years. Considering the differences between men and women, we can see that this observation is valid for both genders, although the percentage of regular users is a bit smaller for women (Table II).

TABLE II
 PERCENTAGE OF USERS IN SLOVENIA USING THE INTERNET ON A COMPUTER, SMARTPHONE OR OTHER MOBILE DEVICE (TABLET, E-READER) REGARDLESS OF THE USAGE LOCATION BASED ON GENDER

Year		2014	2015	2016	2017
In the last 3 months	Men	71.74%	75.29%	76.86%	79.43%
	Women	71.43%	70.85%	74.09%	78.32%
In the last 3 to 12 months	Men	1.73%	2.92%	0.92%	1.47%
	Women	2.42%	1.69%	0.96%	1.13%
More than 1 year ago	Men	2.00%	2.11%	1.82%	2.24%
	Women	2.58%	2.82%	1.49%	2.15%
Never	Men	24.53%	19.68%	20.40%	16.86%
	Women	23.57%	24.64%	23.46%	18.40%

But having access is just the first step. Although the devices and applications are getting more user-friendly, some digital skills are necessary for the use of the internet. Therefore, with the more advanced use of technology and the internet, the necessary levels of skills are needed. The skills measured in this research are not oriented strictly towards the use of the Internet or the World Wide Web but include more generic computer skills. We can see that the skill of computer

programming (writing code in a programming language) is much higher in men (Table III). This skill is primarily taught in technical secondary or high schools and universities that are traditionally more attractive to boys. Although the differences in other skills are smaller, we can observe that in 2015 they decreased drastically in favour of women.

The next set of indexes is focused on the usage of specific internet activities (Table IV). We can see that the most used activities are sending/receiving e-mails, reading online news/newspapers/news magazines and finding information about goods and services. Internet banking and the use of web cloud storage is a slightly increased activity by men, while other activities remain basically the same throughout the

years. On the other hand, women increasingly use the internet for finding information about goods and services but at the same time use internet banking and web cloud storage more like men do. Furthermore, the gap between men and women decreased for the use of the internet for selling goods or services (e.g. eBay) namely by about 8 p.p. in four years. We can also detect that women use e-government websites more, as well as internet services related to travel or travel-related accommodation. Additionally, the areas where use differences are diminishing also include the use of the internet for participating in social networks (creating user profiles, posting messages or other contributions to Facebook, Twitter, etc.)

TABLE III
 PERCENTAGE OF REGULAR INTERNET USERS WITH SPECIFIC DIGITAL SKILL

	Men				Women			
	2014	2015	2016	2017	2014	2015	2016	2017
Copying or moving files or folders	77.0%	67.1%	67.4%	68.6%	72.8%	72.9%	70.6%	74.5%
Creating presentations or documents*	62.8%	53.5%	53.3%	52.8%	60.4%	59.0%	57.2%	58.8%
Writing code in a programming language	15.9%	8.0%	10.3%	8.4%	4.2%	2.8%	3.6%	1.5%
Transferring files between computers or other devices	73.0%	63.4%	62.3%	66.9%	62.7%	66.2%	65.5%	65.2%
Using spreadsheet software	49.9%	40.8%	35.5%	37.2%	43.4%	47.0%	43.3%	46.2%

* integrating text, pictures, tables or charts

TABLE IV
 PERCENTAGE OF REGULAR INTERNET USERS AND THEIR ONLINE ACTIVITIES

	Men				Women			
	2014	2015	2016	2017	2014	2015	2016	2017
Sending / receiving e-mails	86.6%	85.6%	84.9%	86.6%	87.7%	87.7%	90.1%	88.4%
Telephoning over the Internet / video calls	42.9%	35.3%	41.4%	47.1%	39.4%	36.9%	42.7%	46.3%
Participating in social networks (creating user profile, posting messages, etc.)	56.5%	46.9%	49.5%	57.2%	60.4%	55.7%	52.1%	57.3%
Reading online news / newspapers / news magazines	81.4%	78.3%	80.5%	79.1%	81.8%	74.8%	78.9%	74.2%
Finding info on goods and services	88.1%	82.0%	86.0%	88.6%	85.3%	84.9%	85.2%	87.3%
Uploading self-created content (text, photos, videos, etc.) to be shared	39.8%	37.0%	32.9%	35.0%	35.7%	37.7%	33.0%	36.6%
Use services related to travel or travel-related accommodation	40.7%	50.5%	47.4%	45.2%	37.5%	55.5%	52.5%	52.7%
Selling goods or services	48.0%	30.6%	25.0%	31.1%	32.2%	18.2%	18.0%	23.2%
Using internet banking	46.7%	46.8%	46.9%	49.9%	43.4%	45.3%	46.4%	49.1%
Using storage space on the Internet to save documents, pictures, etc.	26.9%	26.3%	32.1%	32.7%	23.7%	25.4%	32.4%	33.6%
Using the internet for obtaining information from government web sites	68.8%	48.6%	50.7%	53.9%	71.4%	61.1%	56.3%	62.4%

The last set of indicators is focused on online shopping (Table V). Although this is an internet activity that relates to many of the others already mentioned, it reflects the financial status and financial independence of the user. In some countries, household finance is provided and managed mainly by men. On the other hand, online shopping might correlate with regular shopping and can mirror the patterns of the physical world in the online one.

The data show that the goods most in demand for Slovenian online shoppers are clothes, sports and household goods (excluding consumer electronics). On the other hand, the least shopping interest is shown for e-learning material, medicine and financial opportunities (insurance, shares, credit). The percentages remain mostly the same over the years, although

we can detect that women are shopping more for food and groceries online. This is also an activity that has the most difference between genders, which can be explained by the Slovenian culture where women normally take care of food and cooking in the household. In contrast, the gender difference "in favour" of men is that they shop online more for electronic equipment, computer hardware, video games and software.

Since the detected differences could or could not be statistically significant, we used the chi-square test of homogeneity. We found out (Table VI) that some calculated differences between genders are statistically significant in all years, some in just a few and some never.

TABLE V
PERCENTAGE OF REGULAR INTERNET USERS AND THEIR ONLINE SHOPPING ACTIVITIES

	Men				Women			
	2014	2015	2016	2017	2014	2015	2016	2017
Food or groceries	17.0%	16.8%	20.6%	18.5%	32.4%	38.4%	38.0%	43.6%
Household goods ⁱ	39.6%	31.6%	46.0%	43.3%	34.6%	24.7%	27.9%	33.0%
Medicine	4.2%	3.5%	5.4%	6.9%	8.7%	8.5%	6.8%	9.9%
Clothes, sports goods	49.7%	37.2%	41.7%	44.6%	56.9%	53.7%	46.7%	55.0%
Computer hardware	36.8%	28.1%	22.9%	29.9%	17.3%	9.7%	10.2%	14.2%
Electronic equipment (incl. cameras)	29.6%	30.1%	25.8%	29.7%	13.3%	9.6%	16.4%	10.6%
Telecommunication services ⁱⁱ	12.1%	5.5%	9.5%	12.9%	8.4%	6.3%	7.5%	7.3%
Financial opportunities (insurance, shares, credit)	6.5%	2.5%	3.2%	5.5%	3.1%	1.2%	3.6%	5.1%
Holiday accommodation (hotel etc.)	40.2%	22.1%	25.4%	25.0%	38.6%	19.4%	23.4%	24.4%
Other travel arrangements ⁱⁱⁱ	23.5%	12.3%	17.5%	14.9%	23.6%	12.6%	16.0%	13.1%
Tickets for events	32.4%	19.4%	27.8%	25.1%	36.2%	22.7%	27.7%	26.7%
Films, music	13.4%	6.5%	9.8%	10.9%	5.9%	4.2%	6.1%	7.9%
Books, magazines, newspapers ^{iv}	18.8%	8.9%	13.4%	11.8%	26.5%	15.0%	16.2%	17.2%
e-learning material	6.8%	3.7%	7.0%	7.8%	10.4%	4.0%	3.5%	5.8%
software ^v	15.2%	8.9%	18.1%	16.2%	5.6%	2.7%	4.4%	4.4%

ⁱ e.g. furniture, toys, etc.; excluding consumer electronics, ⁱⁱ e.g. TV, broadband, phone subscriptions etc. ⁱⁱⁱ e.g. transport tickets, car hire, etc. ^{iv} including e-books, ^v e.g. video games software, other computer software and software upgrades

TABLE VI
STATISTICALLY SIGNIFICANT DIFFERENCES IN PROPORTIONS, ONLY FOR VALUES < 0.05

	2014	2015	2016	2017
Copying or moving files or folders				
Creating presentations or documents integrating text, pictures, tables or charts				
Writing code in a programming language	<0.001	<0.001	<0.001	<0.001
Transferring files between computers or other devices	<0.001			
Using spreadsheet software	0.022		0.04	0.01
Sending / receiving e-mails			0.034	
Telephoning over the Internet / video calls				
Participating in social networks (creating user profiles, posting messages, etc.)		0.017		
Reading online news / newspapers / news magazines				
Finding info on goods and services				
Uploading self-created content (text, photos, videos, etc.) to be shared	0.046			
Using services related to travel or travel related accommodation				0.004
Selling goods or services	<0.001	<0.001	<0.001	<0.001
Using internet banking				
Using storage space on the Internet to save documents, pictures, etc.				
Using internet for obtaining information from government web sites		<0.001		0.014
Food or groceries	<0.001	<0.001	<0.001	<0.001
Household goods (e.g. furniture, toys, etc.; excluding consumer electronics)		0.022	<0.001	0.005
Medicine		.003		
Clothes, sports goods		<.001		.027
Computer hardware	<.001	<.001	<.001	<.001
Electronic equipment (incl. cameras)	<.001	<.001	<.001	<.001
Telecommunication services (e.g. TV, broadband, phone subscriptions etc.)				.002
Financial opportunities (insurance, shares, credit)				
Holiday accommodation (hotel, etc.)	.03			
Other travel arrangements (transport tickets, car hire, etc.)				
Tickets for events				
Films, music	.013			
Books, magazines, newspapers (including e-books)	.046			.023
E-learning material				
Video games software, other computer software and software upgrades	<.001	<.001	<.001	<.001

V. DISCUSSION AND CONCLUSION

Given that ICT is ubiquitously present in the modern information society, its influence has a huge impact. The

digital divide being present from the beginning of the information society can consequently cause major social divides. On the other hand, however, various strategies, policies and projects at different levels (global, national or

local) dealing with the digital divide can drastically impact society in a positive way.

The gender issue, which has been present since the early research of information society and its digital divide, is becoming less significant in most developed western countries today [23], but on the other hand remains present in many countries of the less developed world [10], [22]. Slovenia, as one of the developed countries, is showing a good level of equality on the general social level (education, salary and politics) but nevertheless demonstrates some digital inequality. The difference between men and women that had used the internet in the last three month prior to the survey is diminishing, which is the same situation as the EU average shown by the DESI index [27]. We can find the reasons for such a development in today's general accessibility of smartphones, which are becoming a default mobile device for internet access, paralleling the lowering costs of mobile data subscriptions (per gigabyte of data). Mobile phones have become the predominant device for internet access in Slovenia and other EU countries as shown by the data from Digital Scoreboard [31]. We also argue that the EU "roam like at home" rules, meaning no additional roaming charges while travelling outside your home country within the EU, has affected mobile internet use.

Focusing on the second level of the digital divide, the gender difference in digital skills, we detected only minor differences (within 10 p. p.), some in favour of men (having more technical skills like programming and electronic device management) and some in favour of women (managing files, using spreadsheets and presentation software). Writing code in a programming language is the only digital skill with a statistically significant difference in all the researched years. We can link these results to two areas. Culturally, men are more technically oriented by default (the viewpoint of the household division of work and other cultural backgrounds in Slovenia also linked to the predominately Catholic population), and on the other hand, women more often work in offices where computers are ubiquitous and text, data or presentation software is regularly used.

Considering the online activities, we can also detect gender differences linked to cultural and social background. The "domain" of men includes the online selling of goods and services (statistically significant for all the researched years) and reading news and newspapers, while women are using e-government sites, participating in social networks and using online travelling and accommodation sites more. For other online activities, the gender gap is practically zero. The results correlate with the research conclusions of Coten et al. who detected that, on average, girls and women spend more time communicating over online media [32]. Furthermore, since Junco [33] showed that women were more likely to use Facebook for communication, and this correlates to the case of Slovenia, social media might also be a good channel to promote, educate and motivate women to take further steps into ICT education and jobs. The Women in the Digital Age study found that if more women were to enter the digital jobs market, it could create an annual EUR 16 billion GDP boost

for the European economy [34].

The online shopping results also mirror the same traditional differences, detected in the "physical" or "offline" world. Technical goods such as electrical equipment, computer hardware and software, including video games, is the domain of men and is statistically significant in all the researched years, while the domain of women includes food and groceries (also statistically significant for all the researched years), clothes and sports goods. Other goods and services purchased online show little or close to no differences and even these differences show statistical significance only for some years.

In conclusion, we can confirm that only some statistically significant gender gaps still exist in Slovenia and are decreasing through the years. Only those differences that are influenced by strong traditional and cultural backgrounds still remain. We can conclude that gender equality is not just a nice principle but, as stated by Fowlie and Biggs [35], a vital building block for nations' competitiveness and sustainable economic development. In Slovenia, there is still a need to create policies and projects that would truly motivate girls and women to become equal members of the information society, as suggested also by Hilbert [20].

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