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## USE OF INTERNET SERVICES IN KOSOVO

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**Abstract:** Currently, the Internet has become part of life in the lives of human beings. Today it would be hard to imagine the world without the Internet. We would never have seen a world as it is now without the medium. Therefore, there is a greater importance for the internet in both the personal and professional life of an individual. The Internet is now a giant library that consists of documents, images, video, and web site content. The limited amount of data is regularly added to the library by different mediums and in different formats.

This article aims to review the literature and statistics to spread geographically and demographically internet in Kosovo according to data performed by the statistical agency of the house have access to the population. The industries that are changing with the development of the Internet are Travel, Insurance, Advertising, Music and more. Therefore, the Internet plays many roles in many people's lives.

The myth can be understandable since very few people in or out of the business understand computerization and information technology. They are simply tools we like to own and use. However, we take no ethical responsibility for using them. The computer so used and useful in the information age has the capacity to change our concept of others and ourselves - the concept of what is human. As tools are, computers can cause human beings to be fully human. However, if computers become models by which we measure humanity, they can dominate our way of thinking and make us see ourselves as computers: as storage and manipulator of information, as thinking machines or robots, completely naked by dignity and freedom.

Information about individuals clearly raises the issue of privacy, information about corporations' leads to problems related to the credibility of trade and espionage. As information is becoming a central marketing tool, we are obliged to deal with the damage we can cause to ourselves, to society, and to social relationships through the abuses of technology. Moreover, as the importance of information grows, we will realize how easily these virtues can be compromised.

Unfortunately sabotaging a corporation or national information network can be easier than sabotaging an industrial network. The links are weaker and more dependent on one next. In addition, mentioning or raising these issues does not even mean solving them. However, analysis can be made and the nature of the information age can be more easily understood and what it entails as well as its shortcomings for individuals and for society.

**Keywords**: Internet, technology, information, business

### 1. INTRODUCTION

Lack of awareness of the ethical implications of the information age is what could be termed "the myth of computerization and amoral information technology". According to this myth, computers are neither good nor bad, and when a computer breaks down nor when software has a virus, no one should be blamed and that everything related to information technology and computers should not be judged morally.

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# 2. TECHNOLOGY DEVELOPMENT IN KOSOVO

Information and Communication Technology (ICT) in Kosovo has experienced tremendous and very high development since 1999 (shortly after the end of the Kosovo war)<sup>342</sup>. Kosovar companies some years ago could be said to be non-existent, whereas today Kosovar companies in the field of information technology (IT) offer a wide

<sup>&</sup>lt;sup>342</sup> Ministria e Zhvillimit Ekonomik, STIKK. (2016). Strategjia e Kosovës për TI. Prishtina https://stikk.org/wp-content/uploads/2018/11/Strategjia\_e\_Kosoves\_per\_TI\_V01.00\_29-06-2016.pdf

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range of ICT services. Kosovo is recognized for the youngest population in Europe who have advanced knowledge in this field<sup>343</sup>.

Today, public and private education institutions in the field of IT, through certified learning programs from companies such as CISCO<sup>344</sup> and Microsoft, providing education to thousands of refugees of different ages. The demand for this kind of training is needed and is growing more and more.

The ICT infrastructure in Kosovo is mainly constructed of microwave network, optical cables and cable (DOCSIS). The telecom industry is liberalized and legislation has been introduced by adopting European Union (EU) regulatory principles and fostering competition. Some of the leading internet providers are PTK, IPKO, Kujtesa and Artmotion<sup>345</sup>.

The first ICT companies in Kosovo can be found as early as 1984, these companies, which mainly focused on radio telecommunication and audio-video systems, and in the early 1990s more companies were established, mainly specializing in sales of personal computers. Kosovo's ICT industry flourished after 1999 with the creation of many new companies including IPKO, which is now one of the largest telecommunications providers and one of the largest foreign investments in Kosovo. The main role in post-war technology development in Kosovo was mainly played by outside organizations, non-governmental organizations and private enterprises.

Many aspects of the internet have contributed to our society, one of which is the development of e-commerce. E-commerce has revolutionized the way of business, attracting different companies to do business online. What drives businesses to work online is the low pricing, wide accessibility and speed of Net, which allows new ideas to replace conventional business methods<sup>346</sup>. We are now at the stage when businesses are adopting ways to work over the Internet, gradually changing from real transactions to virtual transactions. In this way, the development of the Internet is clearly changing the way we do business as a whole. And indeed if traditional businesses do not quickly realize how much Internet access and access can change, they may be excluded from modern businesses.

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## 3. GEOGRAPHIC AND DEMOGRAPHIC DISTRIBUTION OF THE INTERNET

The use of the internet in Kosovo and the spread of the internet can come in two forms: geographically and demographically. In the first case, the geographical spread of the Internet implies the extent to which different families or individuals use the Internet by designated regions. Whereas, the demographic spread of the Internet means the percentage of its use by users compared to the total population. The main statistics for Internet use by a country are published in Internet World Statistics, which publishes reports of Internet use by almost all countries in the world. The latest statistics estimate that the population of Kosovo at the beginning of 2016<sup>347</sup> amounts to about 1 million eight hundred thousand; of which about 27% live in Pristina. Meanwhile, regarding the demographic spread of the Internet, the respective percentage reaches about 80% of the population<sup>348</sup>.

<sup>&</sup>lt;sup>343</sup> Hoti, Y. (2018). Outsourcing in Kosovo: An analysis of Kosovo's comparative advantage and the potential for growth. Prishtina

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<sup>&</sup>lt;sup>345</sup> Eastern Europe. (2011). Analysis of ICT Industry in Kosovo (Economic Region Center). Prishtina, Kosovo.

<sup>&</sup>lt;sup>346</sup> Mustafa, M. (2004). Informatika e biznesit. Prishtina.

<sup>&</sup>lt;sup>347</sup> STIKK. (2013). Depertimi dhe perdorimi i internetit ne Kosove. Prishtina: Association for Information and Communication Technology of Kosovo.

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Ekonomit Familjare në Kosovë që kanë pasur qasje në internet nga shtëpia sipas qasja në internet nga shtëpia dhe viti

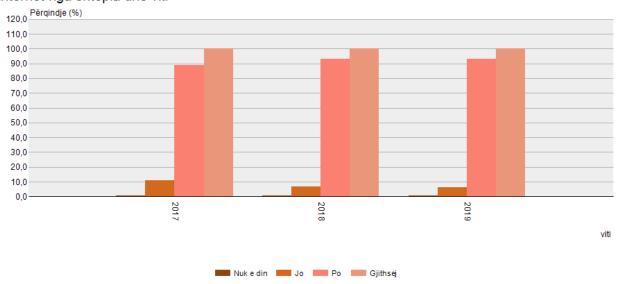


Figure 1. Internet use at home

Meanwhile, in the following figure presented key data on private households on the statistics relating to the use of telephone and computer. The data are taken from the Page the Kosovo Agency of Statistics<sup>349</sup>, which are based on the number of households according to the census in 2011. Statistics estimate that households in Kosovo that have had internet access at home according to internet access from home and according to the last three years show that the majority of the population in Kosovo have access to internet at home. According to the survey conducted by the statistical agency, the questions that were asked, "Do not know", "no" and "yes" as seen in the graph above.

### 4. USE OF INTERNET IN KOSOVO

The Kosovo Information and Communication Technology Association (STIKK), supported by the Ministry of Foreign Affairs (MFA), the Norwegian Embassy in Pristina and the British Council, unveiled a new report on Internet penetration and use in Kosovo<sup>350</sup>. The report concludes that internet penetration throughout the territory of Kosovo is at a global pace internet penetration by users is 76.6% and 84.8% for households. This report provides an update of the 2012 STIKK report providing a brief overview of the internet usage in Kosovo in 2013. Key findings include: "Kosovo's penetration of the internet based on users is 76.6%, a percentage almost identical to those in developed countries; a 2013 report published by the International Telecommunication Union estimated that internet penetration in developed countries is 77%. If you look at household numbers, internet penetration in Kosovo is even higher, 84.4%<sup>351</sup>. An estimate for the geographic penetration of the Internet shows that there are, on average, 9 wireless networks per kilometer across regional roads in Kosovo. "The citizens of Kosovo use the internet at least to the same degree as the citizens of Europe, if not more. The study found that 86.8% of internet users in Kosovo use it the least on a daily basis. Almost 80% of internet users in Kosovo use the internet for communication, while Facebook is the most popular social media platform in Kosovo, while English is the main language used by new users". According to the report, over a third of internet users in Kosovo prefer to conduct online transactions if this is possible. Kosovo currently ranks 32nd in Europe (95th in the world) for Internet service user level. Kosovo is currently estimated to have more than hundreds of thousands of internet subscribers and these numbers are increasing day by day. The biggest users of the Internet are considered young peopleThis steep rise in Kosovar

<sup>&</sup>lt;sup>349</sup> Report of the statistical agency of Kosovo(2018) Received from 04/03/2020 https://ask.rks-gov.net/media/5260/përdorimi-i-teknologjisë-informative-komunikimit-ndërmarrje-2018.pdf

<sup>&</sup>lt;sup>350</sup> STIKK. (2013). Depertimi dhe perdorimi i internetit ne Kosove. Prishtina: Association for Information and Communication Technology of Kosovo..

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internet usage comes because of the drastic fall in internet prices, the need for communication with relatives, as well as the recent increased competition from telecommunications service providers. Kosovo currently has the most Internet service providers in the region, otherwise known as ISP (Internet Service Providers). In a small country with only 10. 887 km2, Kosovo has 4 main ISPs, 31 and approximately 20-30 local ISPs that mainly provide Internet services in rural areas and areas of the country. In the region countries things are a little worse, they are currently ranked 42nd in Europe (107th in the world ranking) for Internet users. While in the Balkan region ranked second lowest percentage of the number of Internet users, while only Serbia lies below. However, Albania is the latest in the number of active Internet subscribers. It is worth mentioning that in Kosovo internet access is enabled by some companies that provide services such as ISP (Internet Service Provider) and they are "IPKO", "PTK", "Artmotion", "Kujtesa" 352.

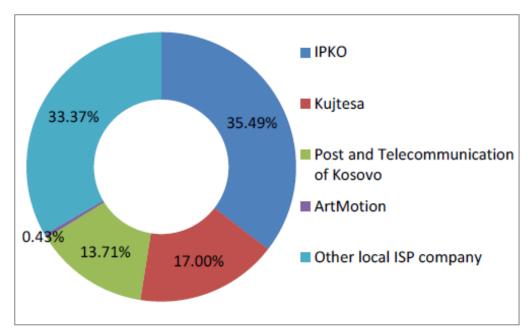


Figure 2. Internet service providers

## 5. CONCLUSION

The development of information technology and systems, as well as the proliferation of Internet use, have had a significant impact on increasing the quality of enterprises, which today many workers can work from home. A great deal of services can now be accessed through the internet, taking the place of the classic form of doing business, that of physical stores. The Internet has transformed modern life by providing fast communication and access to information and services.

This has been going on in Kosovo for years. Initially with the launch of online information portals that provide consumers (readers) with real-time information, easily accessible from various platforms (computers, mobile phones, tablets, smart TVs, etc.), enriched with photos and videos as well as offering interactivity with the reader. In addition, these services are completely free of charge. Internet dissemination can be presented in two forms: geographically and demographically spread. In the first case, the geographical spread of the Internet implies the extent to which different families or individuals use the Internet by designated regions. Whereas, the demographic spread of the internet implies the percentage of its use by users compared to the total population. The latest statistics estimate that the number of the population of Kosovo at the beginning of 2019 is about 1 million and hundred thousand; of which about 27% live in Pristina. Meanwhile, regarding the demographic spread of the Internet in the last three years, the respective percentage reaches over 85% of Kosovo's population.

<sup>&</sup>lt;sup>352</sup> STIKK. (2013). Depertimi dhe perdorimi i internetit ne Kosove. Prishtina: Association for Information and Communication Technology of Kosovo.

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### **LITERATURE**

Açka, Sh. (2012). "*E-commerce like a quickly manner for economic development- Albanian case*," Proceedings EIIC (Proceedings in EIIC - 1st Electronic International Interdisciplinary Conference).

Abdullai, B. (2008). Biznesi elektronik. Tetovo: Universiteti Shtetëror i Tetovës.

Arsenovski, S. (2006). Informatika. Skopje.

Beqiri, E. (2002). Interneti-Komunikimet kompjuterike. Pejë: Dukagjini.

Berisha, M. (2004). Informatika e biznesit. Prishtina: Universiteti i Prishtnes.

Colecchia, A. (2000). Defining and measuring electronic commerce. OECD.

Hoti,Y. (2018). Outsourcing in Kosovo: An analysis of Kosovo's comparative advantage and the potential for growth. Prishtina

Jelassi, T., & Enders, A. (2005). Strategies for e-Business. Creating Value through Electronic and Mobile Commerce, New York: Prentice Hall, p.3.

Jessup, L., & Valacich, J. (2004). "Information Systems: The foundation of e-business", 4th Ed., Prentice Hall, 2004. Mustafa, M. (2004). Informatika e biznesit. Prishtina.

Stephen, H., & Cummings, M. (2012). Management Information Systems for the Information Age.

Turban, E., King, D., & Kyu Lee, J. (2015). Electronic Commerce. Springer International Publishing.

Report of the statistical agency of Kosovo (2018) Received from https://ask.rks-gov.net/media/5260/përdorimi-i-teknologjisë-informative-komunikimit-ndërmarrje-2018.pdf

STIKK. (2013). *Depertimi dhe perdorimi i internetit ne Kosove*. Prishtina: Association for Information and Communication Technology of Kosovo.

Ministry of Economic Development, STIKK. (2016). Strategjia *e Kosovës për TI*. Prishtina https://stikk.org/wp-content/uploads/2018/11/Strategjia\_e\_Kosoves\_per\_TI\_V01.00\_29-06-2016.pdf

Eastern Europe. (2011). Analysis of ICT Industry in Kosovo (Economic Region Center). Prishtina, Kosovo.