

UDK:681.322.2+004.738.5:368.032.2:621.377.623:334.752:614.841.2+355.244.2:159.923.2

Professor Slobodan O. Jovanović¹, PhD

DIGITALIZATION AND INFORMAL MUTUAL INSURANCE

Abstract

Digitalization of the vital data in all aspects of society has been showing an accelerated trend since the beginning of 21st century, whereas its extended application to insurance industry has been considered only in the last couple of years. It began at the time when the Internet was introduced for selling insurance and covering losses on mutual basis by membership in informal risk pools.

In this paper, the author analyses the content, impact and goals attained by applying information technologies and digitalization, and subsequently analyses the ways of using the Internet for effecting mutual insurance. The legal framework for online mutual informal insurance is particularly discussed, together with the legal status of policyholders and obligations of the intermediaries in informal mutual insurance regarding the personal data protection.

As his sources, the author used the media, EU Directives and the regulations of the Republic of Serbia, as well as general business terms and conditions of two foreign companies acting as intermediaries in the provision of informal mutual insurance services.

Key words: *digitalization, networks, Internet, informal mutual insurance, group, risk pool*

I Information Technologies and Digitalization

Digitalization of the data with historical and cultural relevance has accelerated its trend since the beginning of 21st century, whereas at the global level, its extended application to insurance industry has been more intensely considered only in the last

¹ President of the Association for Insurance Law of Serbia

E-mail: nsbob@sezampro.rs.

Paper received: 24. 8. 2017.

Paper accepted: 27.11.2017.

couple of years. In the future, there will be much less need for direct contacts between service providers and their customers because the majority of contacts, exchange of documents, signatures and other information will be carried out electronically.

Information technologies based on the system of data creation, storing, processing, and exchange as well as other actions with information organised into binary datasets² have accelerated business operations and facilitated the access to various services, and thus reduced the costs and length of various procedures. However, before we go into the characteristics and advantages of digitalization, we need to define its meaning. To that extent, the practice has shown that there are different definitions depending on the applied criteria. Thus, according to the technical criterion, digitalization is the process of converting analog information into digital format comprised of binary datasets (WhatIs.com, 2007). According to this criterion, there is also a definition which more closely defines digitalization as the process of translating one object, image, sound, document or signal (usually analog) into a digital format (Sr.wikipedia, 2016). This is why digitalization implies converting different analog formats of historical, archives and other materials into the format suitable for computer transfer and processing. On the other hand, if we take customer satisfaction as a criterion, „digitalization“ or „digital“ is used to describe the ground-breaking array of revolutionary developments (Social, Mobile, Analytics, Cloud) in customer expectation, behaviour and interaction, which are rapidly reshaping the rules of business (PwC, 2014, 10). According to the criterion of organisation efficiency, digitalization is the use of different technologies to transform and optimize the existing organizations and enable new organizations through innovative and adapted workflows, processes, practices, data and business models to take advantage of the opportunities inherent in the digital economy and information society (B20 Germany, 2017, 4). It can be said that the different definitions are the result of the goal and purpose taken into account by particular organisations in connection with their content and characteristics. Sometimes the definition of digitalization depends on the technology development level and thus, it can be connected with the introduction of digital devices to telecommunications (Matica srpska, 2007, 276), that is, with the modernization of telecommunications through switching from analog technologies and devices to digital.³

However, in addition to importance of making a shift to digital information technologies, one should have in mind electronic and communicational capabilities of the Internet⁴ for achieving business efficiency, speed, and streamlined procedures.

² Information exists in digital format as one of the two digits, 0 or 1.

³ For example, in Serbia, the switch-over process from analog to digital terrestrial television was successfully completed on 7 June 2015, whereas the digitalization of materials in Serbia is carried out in libraries, archives, and museums.

⁴ In accordance with Article 4, paragraph 1, item 15 of the Law on Electronic Communications of the Republic of Serbia, Internet is a global electronic communications system consisting of a large number

The number of persons who possess any of IT devices is constantly on the rise, which is why the number of persons using information technologies and services provided on the Internet will grow in time and expand to new areas of life and work of individuals and society. Having in mind the estimate that in the period between 2010 and 2020 the Internet economy will represent 4 percent of economic growth on the territory of the European Union (hereinafter: EU), and that the Internet economy will grow up to 13 times faster than the economy as a whole (Bock et al., 2015, 7), it is expected that billions of different IT devices will be connected to the Internet through Internet service providers or network of mobile telephony carriers. It is estimated that in the beginning of 2016, some 914 million people had at least one connection on social media,⁵ and 360 million took part in cross-border e-commerce (Manyika et al., 2016, 48).

Although new technologies have the potential to increase financial scope by providing new options to the customers to receive advisory services and compare and buy products, at the same time, they exclude the part of population who do not have necessary knowledge of its usage and advantages. The need for comprehensive digitalization-related education in all areas of social life and work is supported by the foundation of Digitalization Academy in the area of culture on 15 June 2017. The Academy is envisaged as a project of direct training provided to the personnel employed in the selected cultural institutions in the Republic of Serbia for carrying out advanced digitalization activities (<http://www.digitalizacija.rs/index.php>). In insurance industry, additional training of employees is considered vital and necessary for business operations and thus, employees' skills are innovated and improved in line with the changes introduced to business. This is one of the principles of social digitalization concept laid out in the Joint declaration on the social effects of digitalization by social partners in insurance sector (Joint Declaration, 2016, 3).⁶

To achieve full effect through digital transformation, it will be necessary to adjust the existing legal and supervisory framework to the technological market development. This is particularly because, as pointed out by Insurance Europe, producing a stream of highly detailed technical rules and guidelines risks overwhelming both supervisory authorities and service providers with requirements that are already obsolete by the time they are adopted (Insurance Europe, 2017, 10).

The most significant changes introduced by digital improvements in business may be divided into the following: data processing automatisisation which

of interconnected computer networks and devices exchanging information by using a common set of communication protocols.

⁵ Facebook, Twitter, LinkedIn and WeChat.

⁶ Declaration was signed by the representatives of Insurance Europe from Brussels, UNI Global Union, Global Union Federation from Nyon (UNI Global Union), Association of Mutual Insurers and Insurance Cooperatives in Europe – AMICE from Brussels and European Federation of Insurance Intermediaries – BIPAR from Brussels.

involves reduction or full abandonment of manual actions in a procedure, shift to the application of digital data and documents, and elimination of paperwork. With the said changes, the existing environment is digitally innovated, after which, based on newly-established digitalized environment the issue of business reorganisation is addressed for the purpose of improving business indicators. For example, automated advice to policyholders through particular questions and standardized answers (advice in connection with different insurance services) may considerably help consumers in making their decision to take out insurance. However, currently this process is not sufficiently developed (Insurance Europe, 2017, 2).

For both parties to insurance relationship, digitalization brings about many other endless possibilities. Thus, Europe Insurance, in its opinion addressed to the European Commission, highlights the following advantages of digitalisation in property insurance: (1) improved risk-modelling means insurers can advise customers more accurately about the risks to their property, so that they can take additional preventive measures to limit their exposure and ultimately increase the insurability of their properties; (2) insurers can help homeowners prepare for impending weather-related events thanks to the use of early warning apps; (3) connected devices in smart homes can be used for damage prevention, thus protecting consumers from damages and insurers from losses (for example, the devices which include smart thermostats that turn up the temperature if there is due to be very cold weather, to avoid frozen pipes and subsequent water damage, or smart boilers that remind the owner when they need servicing) (Insurance Europe, 2017, 4).

Despite the above advantages of digitalization, it seems that the insurance industry is lagging behind in its implementation. Some of the reasons for such situation in non-life insurance are persistent tendencies to introduce changes gradually and slowly, to direct investments at upgrading existing systems without a clear vision, flexibility and other capabilities it needs to meet changing customer expectations, as well as the fact that business success is gauged in terms of product development and sales, rather than the smart solutions that would define a genuinely customer-centric organization. (PWC, 2014, 16).

II Internet and Informal Mutual Insurance

As presented, the term „digitalization“ is a general term covering different IT-related content. Inseparable part of information technologies is the World Wide Web Internet which enables computer users to easily and remotely access other computers and databases from any place in the world. In addition to numerous utilization purposes (educational, communicational, entertaining etc.), since mid-twenties, the Internet has been increasingly used for different types of

e-commerce.⁷ Audio-visual, information and commercial availability of products and services on the Internet increases the participation of business entities in the overall turnover.⁸

Conducting e-commerce requires the possession of IT equipment and connection to the Internet. In the period between 2004 and (inclusive of) 2016, in the Republic of Serbia the percent of individuals with Internet connection almost trebled, and in 2016 was 67.06%. In Bosnia and Herzegovina it rose to 69.3%, in Montenegro 69.9%, Macedonia 72.2%, Slovenia 75.5%, and in Croatia 72.7% (International Telecommunication Union, 2017).

After the first websites carrying on a particular type of e-commerce had emerged in the mid-20th century, it took insurance industry a decade and a half to apply it to selling policies.

Emergence of the social network Facebook⁹ added importance to connecting people, exchanging information, photographs and other content regardless of the place where individuals were situated. It usually gathered people who knew each other at school or from other circumstances, as well as relatives, friends or neighbours. This created numerous groups of people connected in mutual relationships (relational, emotional or friendship) to exchange different information of common and individual interest. Persons joining the social network groups shared the same or similar interests and, as a rule, knew each other well. These social networks spawned the idea for setting up the system of networks in different branches of economy, including the networks for informal mutual insurance (on the Internet) (Chazan, 2016). First such network was founded in 2010 in Berlin under the name Friendsurance, and the others followed (French Inspeer in November 2014; Check PRVNÍ KLUBOVÁ pojišťovna a.s. in September 2015). This insurance model, as explained in the interview given to the media by its originator, was inspired by the fact that 350 years ago people used to organise themselves in small groups to help each other in the event of damage, whereas the fact that having no claims is not always rewarded by insurance companies (Räth, 2014). Informal mutual

⁷ Due to the limited space, we will mention but a few of the most popular e-commerce firms: Amazon.com, a firm founded in July 1994, firstly as an online bookstore only to subsequently expand its sales to other products; AuctionWeb, founded in September 1995 and renamed eBay in 1997; Alibaba.com, a Chinese e-commerce and IT services cloud computing firm founded in 1999.

⁸ According to the data of the UK Office for National Statistics, e-commerce sales by businesses with 10 or more employees in the non-financial sector were 19.0% of business turnover, whereas Website sales contributed 40.4% to the total e-commerce sales (Office for National Statistics, 2016, 3). In the European Union, despite the fact that more and more people are buying products and services on the Internet, particularly in South European countries, interestingly, in 2016, only 18 percent of these companies sold products and/or services through their website, and it is estimated that the e-commerce market on the EU territory will be worth 602 billion Euros in 2017 (Ecommerce News, 2017).

⁹ Facebook is an American for-profit corporation, an online social media which provides social networking services, the website of which was launched in February 2004.

insurance can be carried on by an independent intermediary company or by insurance company itself.

Formation of risk pools or risk portfolios where large groups of persons share the risk of the same characteristics enables the same amounts of premium to be determined even in the event of high indemnities. However, in such organisation of insurance, insurance premium is not personalised to the full extent regarding the quality of individual person (risk) but rather averaged, taking into account the risk pool in general. Informal mutual insurance is based on the principles of reciprocity, mutual trust of risk pool members, and their solidarity in a much smaller risk pool.

In this paper we use the term *informal mutual insurance* because, due to a small number of persons comprising the risk pool, it has no legal form of a mutual insurance company. Unlike this model of mutual insurance, formal mutual insurance is organised in a legal form prescribed for a mutual insurance company that can be founded by minimum 250 natural persons, if mutual insurance company is founded to carry out life insurance business, and/or by at least 300 natural persons or legal entities, if mutual insurance company is founded to carry out non-life insurance business. (Insurance Law, 2014, Article 71, paragraph 2). Additionally, informality of this type of mutual insurance is reflected in an informal connections between entities and formation of pools where the risk is shared. Sale of this type of insurance is carried out through the website which serves for free access to the mutual insurance pool and for receiving insurance applications for which the intermediary company seeks the insurer who will accept the offered risk, or insurance applications which are accepted or rejected by an insurance company which owns the online selling platform. To that extent, on the one hand, there is no difference between the legal status of an intermediary company or insurers who carry on their business through the website and through intermediaries, and on the other hand, the insurers who do their business in a classical manner.

In the informal mutual insurance model, policyholders use a commercial website of brokers or insurers to form small groups with the aim to insure excess amounts in the existing or newly concluded insurance policies which can be worth hundreds of Euros. Since the premium for policies is already paid, insurers pay into a group fund for informal mutual insurance additional smaller amounts of premium. Smaller claims, which fit the excess, are indemnified from the group fund, whereas larger claims, above the excess, are collected from the insurers, according to the insurance policies. Informal mutual insurance is characterised by joint decision of its policyholders and insureds on covering the damage, whereas in traditional insurance, this decision is up to the insurer. If there were no claims in the insurance period, portion of their group's premium is returned to the policyholders of informal mutual insurance or is carried forward to the next insurance period, depending on the agreement that they have mutually reached. If a group fund happens to be empty, policyholders can agree to pay additional premium to cover the loss.

When an informal mutual insurance organises a joint stock insurance company, if a group fund is not sufficient to cover the losses for the risk pool members and the loss exceeds the group's cover limit, the insurer pays the excess of loss from the premium in his retention and, as necessary, from reinsurance. If a risk pool had no claims, the determined excess percent is returned to the risk pool members.

In the brokerage model of informal mutual insurance the broker charges the fee to the insurers, whereas in insuring model, the insurer charges particular fee, particular reinsurance expense, and other smaller charges. Both business models require that all risk pool members effect the same type of insurance (homeowners insurance, liability insurance or insurance of electric appliance) or to be jointly connected with common interest.

III Legal Framework for Informal Mutual Insurance via the Internet

In this part of the paper we will briefly mention the most relevant regulations of the EU and of the Republic of Serbia which govern business operations via the Internet.

The most important regulation of the European Union in the area of e-commerce is certainly the Directive on Electronic Commerce of 2000.¹⁰ This Directive is aimed at removing barriers to cross-border provision of on-line services in the EU internal market for the free movement of services, providing legal certainty of businesses and citizens, and offering a flexible, technically neutral and balanced legal framework and enhancing the competitiveness of European service providers. It is implemented to all services provided and paid at a distance by electronic means and at the individual request of the service recipient. The Directive provides for exemptions from civil and legal liability for information society service providers when they host or transmit illegal content that has been provided by a third party. The Directive discharges IT service providers from the obligation to monitor the information which they transmit or store, and from the obligation to actively seek facts or circumstances indicating illegal activity (Directive on Electronic Commerce, 2000 Article 15). In addition, there are other EU regulations relevant for the analysed area which govern electronic identification, electronic signature, and electronic document.¹¹ For contractual and supervisory insurance framework there are also

¹⁰ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on Electronic Commerce), *Official Journal* L 178 , 17.07.2000, P. 1–16.

¹¹ Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC, *Official Journal of the European Union*, 28.8.2014, L 257, p. 73–114.

other relevant Directives and regulations.¹² In the Republic of Serbia, there are laws governing electronic communications, electronic commerce, electronic document, electronic signature, and personal data protection in accordance with the Acquis,¹³ and the laws governing contractual and supervisory rights in insurance applicable to the informal mutual insurance.¹⁴

IV Legal Status of Policyholders in Informal Mutual Insurance

In this section we will analyse legal status of those contracting informal mutual insurance services from the perspective of two independent insurance brokerage companies which carry on their activities through branded websites: Friendsurance (company for insurance brokerage, Alecto GmbH) from Germany and Inspeer (company for insurance brokerage Avenir Factory SAS) from France.

As in the social networks, for brokerage services of informal mutual insurance over a website the interested person needs to register, that is, create user account by specifying his/her address and code and conclude the agreement with the brokerage company after providing personal data. Having performed these actions, the user can send the applications for the conclusion of insurance agreement, view queries, make connections, report claims, view insurance terms and conditions, etc. The user is obliged to use the electronic address that he has registered. Since the insurance brokerage company is not able to check if the information registered by users is accurate, the General Business Terms expressly stipulate that the company is not liable for the content of information provided by users, for the content of external links with other websites, and for the accuracy and fitness of the content for any particular purpose or objective (Alecto Allgemeine Geschäftsbedingungen, Article 1, item d). These are simply actions and statements of the web users to which the broker has no impact because he does not personally take or instruct such actions or statements and thus cannot be responsible for any detrimental consequences to third parties. The said disclaimer is based on the provisions of the Directive on Electronic Commerce which prescribes the cases where the liability of service provider is excluded.

¹² Directive on Insurance Distribution (Directive /EU/ 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution, *Official Journal of the European Union*, 2.2.2016, L 26, p. 19–59); Solvency II Directive (Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), *Official Journal of the European Union*, L 335, 17.12.2009, p. 1–155) etc.

¹³ Law on Electronic Communications, 2010; Law on Electronic Commerce, 2009; Law on Electronic Document, 2009; Law on Electronic Signature, 2004; Law on Personal Data Protection, 2008.

¹⁴ Law of Contracts and Torts, 1978, Insurance Law, 2014. and other regulations.

In addition to the obligation of the user to provide accurate and truthful information in his/her profile, in communication with other users he/she is not to use pseudonyms or aliases. The duty of the user is to respect any rights of third parties when using the website contents and services and is prohibited from publishing insulting or defamatory materials, regardless of whether these contents concern other users, and is prohibited from using pornographic materials or such that are unlawful according to juvenile law. Further, he/she is prohibited from using legally protected intellectual property rights or advertising, soliciting or promoting unfair competition, including progressive client solicitation, multilevel marketing, and the like. The user is explicitly prohibited from using web-related mechanisms, software or scripts, to block, overwrite, modify or copy its content or make it public (Alecto Allgemeine Geschäftsbedingungen, Article 4).

The user is obliged to make the information uploaded to the broker's website compliant with the law and ensure that it does not violate the rights of third parties, because the broker reserves the right to remove or block such information at any time. The user has the right to independently decide on the users with whom he/she wishes to be connected in the informal mutual insurance pool. Here, it should be borne in mind that the users of informal mutual insurance can be only legally competent adults since these are legal transactions of financial nature, that is, legal transaction of higher level of importance.

In this manner of conducting insurance business, four types of relationships are established: (1) between users as policyholders and insurance brokers, (2) between insurance brokers and insurers, (3) between policyholders and insurers, and (4) between insureds with other insureds. The first type of relationship is based on the brokerage contract under which the user authorises the broker to connect him/her with the insurer with whom he/she will negotiate insurance agreement. The second relationship also arises from connecting insurer with the policyholders where for the concluded insurance agreement the insurer pays brokerage fee. The third relationship is based on the insurance agreement, whereas the fourth relationship represents the relationship between persons in mutual insurance which is established freely and at the initiative of the web users. In the last type of relationship, web users independently choose the persons they wish to be connected with for the purpose of forming the risk pool and other issues of mutual interest (whether to keep the premium return or carry it forward to the subsequent insurance period, and the like)

V Obligations of Informal Mutual Insurance Brokers in Connection with Personal Data Protection

In this section of the paper we will not deal with numerous obligations of brokers in terms of reporting, advisory services, connecting contracting parties and other, but only with their obligation to protect personal data when doing business over the Internet.

Obligations of informal mutual insurance brokers in connection with personal data protection are specially regulated by national regulations and appropriate provisions of general business terms. To that extent, all informal insurance brokers (and other service providers) have in place privacy policy which defines all types of data stored, periods for storing data and their deletion, purpose of collecting and storing data and if the data will be sent and who they will be sent to. Privacy policies of German and French brokerage company for informal mutual insurance over the Internet particularly describe the mentioned data, circumstances in which they are collected, and purpose of their use.

According to the Privacy Policy of German web Friendsurance, to prevent attacks on their system, brokers collect, keep and automatically use information which the Internet search engine of the user sends to the web, such as search engine version, operating system of the user, IP address, transmitted volume of data, file name of the visited site and access time to server, provided that such information is used anonymously, for statistical purposes (Alecto GmbH Datenschutzerklärung, Article 1). Data protection policy particularly defines the data collected and processed for incorporation in the insurance agreements concluded with the insurers selected by the policyholders (brokerage service recipients). These are the data on identity, date of birth, electronic and postal address, payment method, and insurance terms and conditions (Alecto GmbH Datenschutzerklärung, Article 2, paragraph 2; Avenir Factory - SAS Charte des données personnelles, Article 1). In addition to the above data, a brokerage company may collect and process all other data necessary for business, provided that they are defined as such under an appropriate policy and business terms, in accordance with the law. In some cases, these documents may define that upon the approval of the owner of the data sent via the Internet or otherwise, some or all personal data may be used for marketing and market research purposes in order to improve and adjust services to users (Alecto GmbH Datenschutzerklärung, Article 5).

Brokerage company, Alecto GmbH, reserves the right to, at any time, without prior notice, terminate the membership (registration) of the user to the website of Friendsurance at its own discretionary assessment of justifiability of further duration of contractual relationship with the user. This may happen particularly if a user breaches regulations or contractual obligations stipulated in General Business Terms of the broker, in the event of damage to website reputation due to the presence of the user with prior convictions, complaints regarding associations or pools which are under surveillance of security agencies, or in the event of damage to other users (Alecto GmbH Datenschutzerklärung, Article 3, item /a). According to the legal provisions implementing the rules of the subject EU Directives, and according to the law of the Republic of Serbia, IT service provider is not liable for the content of the stored data or information if the provider, upon obtaining knowledge or awareness

of illegal activity or information, acts expeditiously to remove or to disable access to the information, regardless of whether such information or connection (link) is temporarily or permanently stored (Law on Electronic Commerce, 2009, Article 17, 18 and 19). Thus, such provisions are also incorporated in the privacy policy of German and French brokerage company (Alecto GmbH Datenschutzerklärung, Article 3; Charte des données personnelles, **Avenir Factory**). On the other hand, in the event of unilateral exclusion of the user from the membership on the web, contractual relationships between the web user and the insurer remain effective.

VI Conclusion

Digitalization is a process which has encompassed all segments of life and economy. It certainly reduces costs, saves time and raises the efficiency of communications and business transactions to a new, higher level. Together with the application of new IT and communications technologies and devices, the insurer improves the precision of pricing insurance services, better adjusts these services to the needs of insured individuals, and enhances efficiency of preventive measures.

Internet sales of informal mutual insurance represents a new form of insurance service which supplements this seemingly small insurance market niche that has been neglected by insurers.

Informal mutual insurance provides considerable benefits to both insureds and insurers. Insureds receive the coverage for the part of risk that could not be fully covered by insurers and in the event that there were no claims, they also receive the premium return. On the other hand, the insurers have the opportunity to have a larger scope with lower acquisition costs.

Legal framework for this type of insurance is already in place in the Republic of Serbia but requires adequate business model which would be sufficiently attractive for all insurance market participants. To support this, there are already several successful examples in the international market and their particular characteristics were presented in this paper.

Literature

- *Allgemeine Geschäftsbedingungen*, Alecto GmbH, Berlin.
- B20 Germany. (March 2017). *Digitalization for All – Future-Oriented Policies for a Globally Connected World*, B20 Taskforce Digitalization Policy Paper 2017, Berlin.
- Bock, W., Soos, P., Wils, M., Mohan, M. (October 2015). *Five priorities for achieving Europe's Digital single market*. Boston: The Boston Consulting Group.

- Chazan. G. (September 7, 2016). "Tim Kunde's peer-to peer approach to insurance", *Financial Times*. Available at: <https://www.ft.com/content/9f2de95e-49e6-11e6-8d68-72e9211e86ab>, 1. 8. 2017.
- *Conditions générales de vente*, 29.05.2017, Avenir Factory SAS, Paris.
- Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ("Directive on electronic commerce"), *Official Journal L 178*, 17.07.2000, p. 1–16.
- Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), *Official Journal of the European Union*, L 335, 17.12.2009, p. 1–155.
- Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution, *Official Journal of the European Union*, 2.2.2016, L 26, p. 19–59).
- *Ecommerce News*. (June 26, 2017). *Ecommerce in Europe: €602 billion in 2017*. Available at: <https://ecommercenews.eu/ecommerce-europe-e602-billion-2017/#more-9385>, 1. 8. 2017.
- Insurance Europe. (15 June 2017). *Insurance Europe response to the European Commission consultation on FinTech*, Position paper, PAC-17-104.
- International Telecommunication Union. (2017). *Percentage of Individuals using the Internet – Country ICT data until 2016*. Available at: <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>, 1. 8. 2017.
- *Joint declaration on the social effects of digitalisation by the European social partners in the insurance sector*. (12 October 2016). Brussels: Insurance Europe, UNI Global Union, AMICE, BIPAR.
- Manyika, J., Lund, S., Bughin, J., Woetzel, J., Stamenov, K. and Dhingra, D. (March 2016). *Digital globalization: The new era of global flows*. New York City: McKinsey Global Institute.
- Matica Srpska. (2007). *Rečnik srpskoga jezika*, Miroslav Nikolić (redactor and editor). Novi Sad: Matica Srpska.
- Office for National Statistics. (30 November 2016). *E-commerce and ICT activity: 2015 – The value of e-commerce sales and the level of use by UK businesses of information and communication technologies*, Statistical bulletin, London.
- PwC. (2014). *Insurance 2020: The digital prize – Taking customer connection to a new level*.
- Räth, M. (14.05.2014). „Friendsurance: ‚Der Weg war nicht leicht‘, *Die Welt*. Available at: https://www.welt.de/print/welt_kompakt/webwelt/article127973630/Friendsurance-Der-Weg-war-nicht-leicht.html, 1. 8. 2017.

- Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC, *Official Journal of the European Union*, 28.8.2014, L 257, p. 73–114.
- Sr.wikipedia.org. (25 September 2016) *Digitalization*. Available at: <https://sr.wikipedia.org/sr-el/Digitalizacija>, 1. 8. 2017.
- WhatIs.com. (April 2007). *Digitization*. Available at: <http://whatis.techtarget.com/definition/digitization>, 1. 8. 2017.
- Law on Personal Data Protection, *Official Gazette of RS*, no. 97/2008, 104/2009 – other law, 68/2012 – Decision of CC and 107/2012.
- Insurance Law, *Official Gazette of RS*, no. 139/2014.
- Law on Electronic Communications, *Official Gazette of RS*, no. 44/2010, 60/2013 – Decision of CC and 62/2014).
- Law on Electronic Commerce, *Official Gazette of RS*, no. 41/2009 and 95/2013.
- Law on Electronic Document, *Official Gazette RS*, no. 51/2009.
- Law on Electronic Signature, *Official Gazette RS*, no. 135/2004.

Translated by: Zorica Simović