Networking of Social Sciences Knowledge in the Function of Solving Practical Problems and Development of Society

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Abstract

The development of modern societies is based on the latest concepts of the knowledge economy and knowledge society, which implies sectoral and disciplinary connection and integration of all available knowledge of a society and putting it into the function of achieving social goals (development). The purpose of this paper is to look at the scope of this concept in the world and make a comparison with the degree of knowledge application and integration of science in Serbia, with a focus on social sciences. Accordingly, an overview of general global trends and challenges in the field of social sciences, education, and the application of knowledge is given first. After that, examples of good practice and one case study (Social Science Research Park in Great Britain) are presented. Then the state of social sciences (and their practical application) in the Republic of Serbia was analysed. It was observed that there is a solid institutional framework for the development and networking of knowledge, but also that there are open questions and problems that need to be worked on in the future. In the final part of the work, potential solutions were offered for the identified challenges that could contribute to mitigating the observed problems and more effectively achieving the set goals.

Keywords: education, networking, scientific integration, social sciences, Triple Helix

Networking of Social Sciences Knowledge in the Function of Solving Practical Problems and Development of Society

The purpose of this paper is to show the mechanisms of application of social science knowledge in solving practical social problems and achieving development goals, with a focus on possible improvements, when it comes to this topic, in the Republic of Serbia.

Newer development concepts such as the knowledge economy or the knowledge society highlight the importance of the connection and integration of various scientific disciplines as well as the academic community with other sectors in society (government, profit sector, civil society). One of the manifestations of this approach is the modern science and technology parks, within which very diverse actors cooperate to create innovative solutions for increasingly numerous social needs. Such parks also exist in our area, but it is also evident that scientists and researchers from the natural and technical sciences are active in them (information technologies are particularly prominent). At first glance, it seems as if social sciences and their knowledge (since they are not directly profitable) are in the background compared to natural and technical sciences.

However, in the most developed societies, the importance and potential of social sciences for the overall development of society is well recognized, which is manifested in numerous innovative approaches, including the appearance of the first Social Science Research Park in the United Kingdom.

That being said, this article has several goals.

The first is to see the importance of social sciences on a global scale. This was done based on the documents content analysis (reports) for this topic of relevant world organizations (under the auspices of the UN) and a literature review. Based on this, two conflicting statements can be distinguished. One talks about the great importance of social sciences and the "golden age" that awaits it, and the other about the poor status and lack of recognition of its importance in many countries of the world.

The second goal is the presentation of good practice in connecting, integrating, and applying social science knowledge, which was realized through a case study (the presentation of the world's first Social Science Research Park).

The third goal is the analysis of the state and status of social sciences in Serbia, which was realized based on the analysis of official documents (laws and strategies), data and the implementation of scientific research projects.

Finally, in the final part of the paper, general conclusions are given about the state of social science in Serbia and the possibilities of its further networking and application of knowledge with a set of recommendations that would eventually help to overcome the perceived challenges.

Global Situation and Trends in the Field of Social Sciences

In recent decades, the scientific and technological revolution has influenced the complexity of the social structure and the emergence of new challenges, the face of which requires the engagement of the entire society and the total knowledge at its disposal. This implies the integration of knowledge from different disciplines, that is, the integration of natural and social sciences, but also their connection with other sectors of society (government, economy, civil society). Exactly, this integration with the natural sciences and connection with the government sector, the economy, and citizens, to solve practical societal problems, is a global trend or tendency in the understanding of social sciences.

The ever-increasing contribution (as well as the demands) that social sciences can make in *solving practical social problems* also influence the increase in their importance. This objective importance should not be confused with the public policy of a specific state towards social sciences and the status it has in it.

Arguments for the presented theses can be supported based on several sources.

Firstly, according to many academic sources (Foster et al., 2017), the social sciences are expecting intensive development and a "golden age" because the capacities of computers accompanied by the concept of Big Data give them new powerful tools that allow them to very (and so far, unprecedented) complex approaches in observing social phenomena. In addition, the inclusion of insights and knowledge from other sciences and disciplines (e.g., neuroscience, evolutionary biology, etc.) gives them far

greater predictive power. Modern researchers of social phenomena now have new tools and opportunities such as experimentation in virtual laboratories or randomized control trials (Hariton & Locascio, 2018).

Secondly, in addition to increasing opportunities for researchers of social phenomena to create new knowledge, the demand for it also increases. According to some reports, public policymakers are increasingly realizing the importance of social sciences due to the need for constant innovation and improvement in public services, as well as data that is the basis for creating public policies (evidence-based policy) (Puttick, 2011). Besides this, the private (or profit) sector is increasingly interested in understanding interpersonal relationships, and therefore the importance of social sciences, which is quite expected in today's world of social networks and media (Price & Delbridge, 2015, p. 21).

Furthermore, when it comes to the need to apply the knowledge of social sciences (and science in general) and its integration with other sectors in society, theories or models bearing the names: The Third Mission of the University, the Triple Helix, and the Quadruple Helix testify. The third mission of universities emphasizes that, in addition to their two basic missions (teaching and research), universities should also have a third one, which is a contribution to society (Compagnucci & Spigarelli, 2020). The Triple Helix model represents a further development of this concept in the sense that this contribution to society should be realized through the intensive cooperation of three sectors (hence the name of this model): academic, economic, and government sectors (Etzkowitz, 2008). Today, there is an international movement that promotes this idea (https://www.triplehelixassociation. org/) as well as an international institute (http://www.triplehelix.net). The Quadruple helix mission model, and the term "multiple helices" is being mentioned more and more often, represents a further development of these ideas, and in addition to the mentioned three sectors, it also adds civil society as the fourth partner of cooperation, but also various other aspects: cultural, geographical, sustainability (Perris-Ortiz et al., 2016, p. 8).

The reports as well as the evolution of the International Social Science Council (ISSC) support the thesis about the objective importance of social sciences and the need for the integration of natural and social sciences. This Council was founded under the auspices of UNESCO in Paris

in 1952 to improve the social sciences at the world level, i.e., their quality, innovation, and applicability. In 2018, the International Social Science Council merged with the International Council for Science into a single organization, the International Science Council, because the necessity of a global voice of all sciences (natural and social) was realized, as well as their equal importance for the development of humanity (https://www.worldsocial science.org/).

Although very important for the survival and further development of man and humanity, social sciences (or most of them) are not directly profitable like many technical sciences (egg software engineering, pharmacy, construction, etc.). Namely, the scientific results of social sciences are not concrete products that have a direct production-technological component in the development of humanity. However, they deal with the analysis of interpersonal relationships and human motivation, the decision-making process, etc. which represents the social basis of production and thus overall social development. As a consequence of the failure to recognize or insufficient understanding of this important fact, a kind of social science crisis is emerging, which is manifested by their insufficient funding.

This is precisely what is written in the ISSC report from 2010 on the state of social sciences in the world. It is stated that one of the key problems in most of the world is the lack of finance and that previous governments and universities were the main sources of funding, while at the time (2010) government subsidies for social sciences are the exception rather than the rule, especially in less developed parts of the world. (UNESCO & ISSC, 2010, p. 6). The same report also states that social scientists and their research have different statuses from country to country. While in some countries they have a recognized status and high reputation as columnists, advisors, directors of think-thanks organizations, etc., or they are simply marked as essential for the overall development of the country (such as in China or Brazil) in some other countries when it is said science refers primarily to natural sciences (e.g., in most Arab countries but also in other less developed countries). In many low-income countries, investing in social science education is considered a waste or a cost from which other (richer) countries benefit more (due to the so-called brain drain effect) (UNESCO & ISSC, 2010, p.8). An important part of this report is the elaboration of the relationship between social sciences and political decision-makers with guidelines aimed at more intensive cooperation of people from these two fields, with a particular focus on evidence-based policymaking (2010, p. 19).

The report of this Council from 2013 entitled "Changing Global Environments" emphasizes, even more, the necessity of concerted activities to preserve the planet, social equality, human dignity, and well-being for all. To this end, "the social sciences provide indispensable knowledge of the causes and consequences of global environmental change, and more effective, equitable and durable solutions to today's sustainability challenges" (UNESCO & ISSC, 2013, p. 4).

Also, the title of the report from 2016 contains, in the opinion of experts at that time, the biggest global challenge, i.e., the problem is social inequalities. Similar to previous reports, guidelines are offered to mitigate the diagnosed problem while emphasizing the importance of the contribution of social sciences (UNESCO & ISSC 2016).

Based on the presented content, it can be concluded that social sciences are extremely important on a global level, and the necessity of including their knowledge in solving the biggest global challenges such as sustainability or inequality is highlighted. However, the situation is quite different when analysing specific countries. In many, there is a lack of funding and the perception of social sciences as "unprofitable investments". On the other side, judging by some parameters (number of journals, published works, research centres, the status of social scientists in society, cooperation of universities with other sectors, etc.), it can be said that social sciences are the most developed (or have the best status) in the Western world, i.e., in first place in the USA and the UK (see: Sinha, 2021, pp. 59–91; Keim, et al., 2014). This is also solid evidence that supports the thesis about the importance of social sciences for their, not only economic but overall social development.

Scientific Research Parks and Labs in the Field of Social Sciences – Creation and Application of Knowledge in the Achievement of Social Goals

As Western countries (Western Europe and the Commonwealth, with the USA and the UK standing out among them) are leaders in terms of the development of social sciences and their inclusion in the development issues of society, it is quite expected that their experiences will be reviewed for eventual application in other areas as well. These experiences and practices are quite varied and an effort to comprehensively present them in a work of this scope would not be feasible. Therefore, one specific example will be presented in more detail, which contains numerous innovative instruments and principles for connecting social sciences and other sectors of society, as well as mechanisms for applying social science knowledge in solving public problems.

Considering the topic of this paper, the first research park in the field of social sciences in the world, which was founded at Cardiff University (Wales, Great Britain), deserves the greatest attention. Its full name is Social Sciences Research Park (SPARK). The basic idea and purpose of this park are the same as when it comes to science and technology parks (in the field of natural and technical sciences), which have been known for decades, and that is to connect science and other sectors (primarily economy, government, and civil society), but its specificity lies in the fact that, for the first time in the world, it is about social sciences as a "tenant" of such a park.

SPARK is located in an area of 12 thousand square meters where experts and professionals from different professions and business positions meet, communicate and work together to solve the biggest challenges of society. Through multidisciplinary interaction and cooperation of different profiles of people, new insights and knowledge are created regarding the development of society. SPARK primarily deals with ongoing social changes, and challenges and responds to them, i.e., by offering optimal solutions. Its creators see the rationale for the existence of such a park in the collection, intersection, and promotion of various knowledge that is normally created within the individual (often unrelated) institutions. While higher education institutions (universities and faculties) create new knowledge that is often

general (sometimes not directly applicable at a given moment), SPARK is particularly interested in promoting that knowledge that can contribute to solving social problems (inequality in society, sustainability, population ageing, and many others). The basic formula of work is based on three elements: innovative thinking, joint work, and exchange of ideas.

The park began to emerge in 2011 through the establishment of several research centres that dealt with numerous issues such as the lack of drinking water, crime prevention, innovations in the field of energy use, the way of using Big Data... It was institutionally and infrastructurally completed in 2021 when a new futuristic building was made especially for its needs. The Park's equipment provides opportunities for designing, and prototyping decisions/actions and simulations, which test potential solutions for urgent societal problems.

Otherwise, the Park was built with funds from both the private and public sectors and can be treated as the result of a partnership between the public and private sectors (University Business, 2021).

The space and equipment are arranged in such a way that they are attractive and accessible to the widest audience and needs. In addition to offices, conference rooms, and spaces for lectures and research, SPARK is equipped with very innovative instruments and spaces. Within it, there are multidisciplinary behavioural research laboratories (dedicated behavioural labs) in which human behaviour is investigated in controlled conditions (usually in the fields of marketing, management, and experimental economics). They use state-of-the-art equipment such as eye tracking technology, which uses sensors to detect eye movements, i.e., what a person looks at a moment, and what he directs his attention to, but also enables human-computer interaction. There are also *data hubs*, it is systems that in their centre contain the connection of a large number of different IT systems, whether it is web applications, IoT (Internet of Things) devices, business platforms, etc. In addition to this, SPARK also has so-called wet labs as well as visualization laboratories. In addition to these laboratories, there are also numerous libraries as well as a TV studio equipped with a TED-style auditorium, for a wide range of events and presentations prepared for the general public. Also, the Park has a space open to the public where citizens can be informed and taught about the urgent needs of society and topics such as the circular economy or even be trained, for example, on how to recycle and live by the principles of sustainability.

The basic principles and elements on which the first social science research park in the world was founded (which can be considered as a kind of conceptual guide for future similar parks) are given in the document Social science parks society's – new super-labs (Price & Delbridge, 2015).

Firstly, physical space dedicated to networking and innovation is important. Although today we live in the conditions of increasingly frequent work from home (online), without the classic going to work and direct contact with colleagues, this concept emphasizes the importance of traditional contacts and workspace. It is based on the assumption that the creation of new knowledge is essentially a social process (except for rare, gifted individuals who create new knowledge on their own). It takes place through the exchange of ideas and different points of view, for which spaces as "temples" of knowledge are important. In ancient times, these were libraries and academies, monasteries in the Middle Ages, and today they are universities and innovation laboratories (see Allen & Henn, 2007 on the importance of space for an organization that creates innovations).

A second important principle is *harmonization and cooperation*, i.e., *networking of different ideas and views on social problems*, for the joint creation of new knowledge. This is based on the already mentioned *Quadruple helix* model, according to which there are four main axes of cooperation: universities, government, economy, and citizens.

The third principle is *treating scientists from the field of social sciences as carriers of social innovations*. This implies conscious efforts and attempts to move them from the position of passive observation of society to more active participation in social changes. In this connection, the public value of social sciences and the concept of new public social sciences are discussed (Brewer, 2013, pp. 117–204). In reality, this is being achieved through the promotion of experimental methods and the cooperation of various stakeholders and researchers in concrete attempts to create meaningful and practical interventions in society within the so-called *living labs* (Bergvall-Kåreborn & Ståhlbröst, 2009). A living lab is essentially a research methodology for discovering, prototyping, evaluating, and fine-tuning complex solutions in a complex and ever-changing real-life context (https://fissacproject.eu/en/living-

labs/). By the way, there are such laboratories all over the world and in Europe, and there is also a European network of living labs (https://enoll.org/). On the website of this network, dozens of live laboratories can be searched, classified by area and sector.

The next principle is the application of trial *test beds*. In principle, it is a platform for conducting precise, transparent, and repeatable tests to verify a scientific theory, tool, or new technology. The idea is to introduce strict mechanisms for testing various theories, knowledge, and proposed solutions in the social sciences as well (Manzi, 2012). And what is especially important and radically new in SPARK is that it can be a platform for the development of trial or bed-tests, that is, potential solutions that relate to society as a whole.

Finally, the last principle is the *inclusion of research* and findings *in practice*. "If all a social science park ends up being is a gleaming new workspace for academics, then it will have failed in its purpose" (Price & Delbridge, 2015, p. 17). Its primary function is to break down the barrier between different theories and research on the one hand and practice on the other. Namely, it has been noticed, even in Western countries where social sciences are significantly more developed compared to the rest of the world, that only a few professors who teach social sciences students engage in the practice (Shepherd, 2014, p. 23). More specifically, social science parks should be an environment for, one might say, a new profile of people who integrate academic and practical knowledge and skills and who prototype new ideas and proposed solutions (i.e., check their effectiveness in practice).

So, if one had to briefly say what SPARK is, then the possible answer would be that it is:

- (physical) space, where people from the spheres of science, the government sector, and the economy work together to solve problems and ensure the practical needs of citizens (society);
- 2. through the integration of existing and creation of new knowledge (laboratory);
- 3. testing new and previous knowledge (that is, testing their functionality in practice) and
- 4. inclusion of results, i.e., application of knowledge in real life.

The State of Social Sciences in Serbia

When it comes to trends or tendencies in science in the Republic of Serbia, judging by official documents (regulations, strategies) and declared goals, it could be said that they follow the described tendencies on a global level (knowledge society, science in the function of solving social problems, connecting science with other sectors). Thus, in the Law on Science and Research, it is stated at the very beginning that science and research are of high importance for overall development and that, together with higher education, they are the driver of economic and overall social development (Narodna skupština Republike Srbije [Narodna skupština], 2019, Art. 2). This Law establishes the adoption of the Strategy for Scientific and Technological Development to achieve long-term goals. Also, Article 28 prescribes the association of institutes into the Union of Institutes of Serbia for mutual connection and scientific-research cooperation (which, by the way, was founded in its current form in 1990 - http://zis.ac.rs/index.php/sr/).

The Law on the Science Fund is also very important for this topic, in which the first article states that its goal is to create conditions for the development of scientific research and development activities necessary for the progress of a *knowledge-based society* (Narodna skupština, 2018, Art. 1). The commitment to the practical application of knowledge is also reflected in Article 18 of this Law, which stipulates that the goal of each program of the Fund is to respond to the social developmental challenges of the Republic of Serbia, but also the global challenges of the development of society. Also, a good indicator of determination to connect science with other sectors is the fact that the structure of the Fund's programs consists of innovations, that is, cooperation programs with the economy including the mandatory and immediate application of research results (2018, Art. 20, para. 7).

In addition to the legal basis, certain activities were also carried out to concretize the realization of the set goals in practice (adoption of strategic documents). In 2021, a new strategy for the development of education and upbringing in the Republic of Serbia until 2030 was adopted, in which the importance of strengthening ties between the education sector and other sectors (responsible for social policy and employment, economy, culture, finance, etc.) is emphasized, as well as a vision of the development a

knowledge-based society and economy (Vlada Republike Srbije [Vlada RS], 2021, p. 18).

However, the most important strategic documents for this area are the Strategy for Scientific and Technological Development entitled "Research for Innovation" which was valid for the period 2016–2020 (Vlada RS, 2016), and the current (2022) Strategy for Scientific and Technological Development for the period 2020–2025, which is called "The Power of Knowledge" (Vlada RS, 2021).

In the earlier "Research for Development" strategy, key problems were identified (insufficient funding from the state budget, almost non-existent participation of the private sector, and little impact on society) but also potentials such as the above-average contribution of Serbian scientists to world science (MPNT, 2016, p. 3). Among the six specific goals is the strengthening of the connection between science, economy, and society to achieve innovation.

In the new "Power of Knowledge" strategy, the (un)realized goals from the previous strategic period were reviewed and new goals and directions of action were set. One of the special goals is to focus research attention on social challenges and priorities, but also to establish a mechanism for the nomination of social challenges as scientific research topics and the formation of expertise for state administration.

Based on the above, it can be concluded that in Serbia there is an encouraging formal institutional framework, that is, a legal basis for projects and activities that contribute to the networking of various scientific disciplines, then science with other sectors and greater practical application of scientific knowledge. Nevertheless, the existence of such a framework is only the first step towards achieving more significant results in reality. Much of this depends on many other factors, such as financial resources, organizational culture, and the habits and agility of the organizations and individuals that perform scientific research.

The projects realized so far, as well as those planned in the future, testify to the achievement of strategic goals. For example, in 2015, the first science and technology park in Serbia was built in Belgrade, with significant financial support from the Government of Serbia. Apart from it, parks were also built in Čačak, Niš and Novi Sad in the following years. The

determination to invest in scientific infrastructure is evidenced by the Government's decision in 2018 to invest around 65 million euros in infrastructure projects in science and technology parks (RTS, 2018). In addition, the Campus Bio4 project (for the field of biotechnology) was announced in 2022, and investments of around 190 million euros are planned (RTS, 2022). Finally, it is planned to invest 140 million euros in new faculties by 2026, including those in the field of social sciences and humanities (N1, 2022).

When comparing science in Serbia with science in Europe (more precisely, the EU) and the world, it is evident that science in Serbia is weaker in many parameters compared to science in the EU, while compared to the whole world, it is better in many parameters. First of all, when it comes to investments in science and development, the average investment at the EU level, in the last ten years, amounted to about 2% of GDP, while in Serbia that percentage is below 1% (Vlada RS, 2021. p. 33). The number of researchers in relation to 1,000 inhabitants in the EU-28 is slightly higher than 4, while in Serbia that number is 2 (with a slight increase in this number both at the level of the EU and Serbia) (2021. p. 39).

However, what is most indicative of the topic of this work is the fact that the largest number of researchers in the EU work in the economy, followed by higher education, and the least in the state sector. In Serbia, the largest number of researchers work in the higher education sector (about five times more than the number of researchers in the economy), followed by the state sector and the economy (Vlada RS, 2021, p. 40). To increase the more intensive connection between the economy and science, new programs and projects are launched, such as the Science and Economy Cooperation Program within the Innovation Fund (Fond za inovacionu delatnost, 2022), the Business Acceleration Program (SAIGE project, more: Ministarstvo prosvete, 2022), or the Green Program of Cooperation between Science and Industry (within Science Fund).

Based on the measurement of the success of science (number of scientific papers and citations), it is evident that compared to the EU-28, Serbia is significantly weaker, but also significantly better compared to the world. It is also encouraging that in the observed parameters there is a slight but constant progress (in the period 2008-2019) (Vlada RS, 2021, p. 21).

When it comes specifically to the social sciences, based on the mentioned sources, it is difficult to single out immediate positions that would only apply to them, since most of the provisions and solutions refer to science in general. However, considering the number of institutes and higher education institutions in the social science and humanities field, as well as the recent years' regular financing of projects in these fields, it can be said that they are adequately treated by public policymakers.

Namely, within the Science Fund, there were and are numerous programs where projects from the social sciences and humanities can apply. Within the framework of the PROMIS program (The Program for Excellent Projects of Young Researchers), a total of 9 million euros was allocated for project financing. In addition to them, there are also programs IDEAS and PRISMA. Through the IDEAS program, 30 million euros have been recently allocated for the implementation of 39 projects, 24 of which are in the field of social sciences and humanities, while the new PRISMA program (2022) provides 25 million euros of support for project activities. The IDENTITIES program should be especially highlighted because it is intended to finance research exclusively in social and humanistic fields. In 2022, 2 million euros are planned for project financing.

Finally, if we were to look at the status of social sciences in Serbia and compare it with the status of social sciences in Europe and the world, based on the arguments presented, it could be concluded that it is "halfway" between Europe (more precisely, the EU) and the world.

Conclusion

In this paper, the global trends in science in general, and especially when it comes to social sciences, are pointed out. Challenges, as well as new opportunities facing social sciences in the future, are also presented.

Then, possible instruments and practical scopes are presented when it comes to networking knowledge of social sciences in the function of development (scientific research park in the field of social sciences, and numerous social laboratories and innovative approaches).

As for (social and humanistic) science in Serbia, it is shown that there is a solid institutional framework and treatment of science (numerous scientific research institutions and available funds). When it comes to

principles and aspirations, the official scientific and educational policy is based on concepts that are currently in the world (knowledge society and economy). Practical activities are also evident through which strategic goals tend to be achieved with the support of projects from the mentioned funds.

However, despite many activities being implemented, the results of which will be discussed in the future, it is noticeable that many goals have not yet been achieved and that there is a lot of room for improvement. For example, in Serbia, there is still a small number of researchers working in the economy (in contrast to the EU). When it comes to science and technology parks in Serbia, it is evident that they are mainly a base for technical sciences, while the construction of a social science and research park in the foreseeable future, like the one in Cardiff, does not seem like a realistic option for now. In addition, innovative approaches and instruments in the field of social sciences, such as living laboratories, digital twin cities, the use of simulations in public decision-making, etc., have not yet taken root in Serbia. However, there is some advance in this direction, primarily when it comes to databases (e.g., Open Data Portal and Data Center Serbia for Social Sciences). Also, an indicator of the existence of problems in the system of scientific and educational policy in the social sciences field is data and analyses that speak of a large number of unemployed graduates of social sciences and the frequent inapplicability of their knowledge (Cvetković, 2018, p. 202).

Based on the conclusions so far, and to further achieve the strategic goals discussed in this article, recommendations for future courses of action can be identified. They are based on the premise that a solid institutional framework and adequate public policy is a prerequisite for innovation and new approaches in scientific research work. However, the condition and the main driving force lie in the people and the so-called social capital, which implies the networked society as well as relations of respect and trust between people (Roggers, 2003).

Consequently, some of the possible courses of action can be identified to achieve more effective results in the area of networking and the application of social science knowledge.

One of the directions of action could be aimed at a greater turnover of researchers, i.e., their temporary departures to work in other

organizations (outside their homes). There are various foreign experiences in which all researchers are rotated/changed between institutions such as universities, scientific institutes, technology parks, and research laboratories. In addition, this dynamic also applies to the positions and specific tasks that researchers perform. Such solutions would imply a different approach to employment policy in scientific and research institutions and more flexible employment contracts.

Another course of action could be based on the determination to support more projects that have as their main goal networking and increasing the practical contribution of knowledge. For example, as many as 24 projects in the field of social sciences have been financially supported within the mentioned program IDEAS, but none of them deals mainly with this issue.

Since the main source of innovations, connections, and new approaches is in the person himself, as many people as possible must understand and accept the innovations. Therefore, an informative campaign on these topics is important, and within that, organizations, as well as researchers and university teachers, should be supported to be members and participate in international associations that promote these values (e.g., the Triple Helix movement).

At the very end, although not the least important, the question of financing science and research remains open. Although some progress has been made in this field, the fact that Serbia invests barely 1% of its GDP in science and development, which is significantly less than the EU average, remains a warning. If the nominal value of money is taken into account, without a serious reform and improvement of the financing system, science in Serbia will have a hard time coping with the competition of science and researchers from more developed countries in Europe and the world.

References

- Allen, T., & Gunter H. (2007). *The organization and architecture of innovation Managing the flow of technology.* Elsevier.
- Bergvall-Kåreborn, B., & Ståhlbröst, A. (2009). Living lab An open and citizen-centric approach for innovation. *International Journal of Innovation and Regional Development*, 1(4), 356–370.
- Beta. (2022). Otvorena nova zgrada Fakulteta organizacionih nauka u Beogradu [The new building of the Faculty of Organizational Sciences in Belgrade was opened]. *N1*. https://rs.n1info.com/vesti/otvorena-nova-zgrada-fakulteta-organizacionih-nauka-u-beogradu/
- Brewer, J. (2013). *The public value of the social sciences*. Bloomsbury Academic.
- Compagnuccia, L., & Spigarelli, F. (2020). The third mission of the university:

 A systematic literature review on potentials and constraints.

 Technological Forecasting and Social Change, 161:120284.

 https://doi.org/10.1016/j.techfore.2020.120284
- Cvetković, V. (2018). Mladi u nauci i visokom obrazovanju u Srbiji: ostanak ili odlazak sa povratnom kartom [Young people in science and higher education in Serbia: staying here or departure with a return ticket]. In V. Kostić, S. Đ. Dejanović, and M. Rašević (Eds.), *Ka boljoj demografskoj budućnosti Srbije*. SANU & Institut društvenih nauka.
- Etzkowitz, H. (2008). *The Triple Helix, University-Industry–Government Innovation in Action.* Routledge.
- Fond za inovacionu delatnost. 2022. *Program saradnje nauke i privrede* [Program of cooperation between science and business]. http://www.inovacionifond.rs/cir/program/program-saradnje-nauke-i-privrede
- Foster, I., Ghani, R., Jarmin, R., Kreuter, F., & Lane, J. (Eds). (2017). *Big data and social science: a practical guide to methods and tools*. Chapman and Hall/CRC, Taylor & Francis Group.

- Hariton, E., & Locascio, J. J. (2018). Randomised controlled trials the gold standard for effectiveness research. *BJOG*, *125*(13): 1716. https://doi.org/10.1111/1471-0528.15199
- Keim, W., Çelik, E., & Wöhrer, V. (2014). *Global knowledge production in the social sciences Made in circulation*. Routledge.
- Manzi, J. (2012). *Uncontrolled: The surprising pay-off of trial-and-error for business, Politics and society.* Basic Books.
- Ministarstvo prosvete. (2022). *Projekat akceleracije inovacija i podsticanja rasta preduzetništva u Republici Srbiji* [Serbia accelerating innovation and entrepreneurship project SAIGE]. https://mpn.gov.rs/vesti/projekat-akceleracije-inovacija-i-podsticanja-rasta-preduzetnistva-u-republici-srbiji-serbia-accelerating-innovation-and-entrepreneurship-project-saige/
- Narodna skupština Republike Srbije [Narodna skupština]. (2018). *Zakon o fondu za nauku Republike Srbije* [Law on the science fund of the Republic of Serbia]. (Službeni glasnik Republike Srbije, br. 95/2018).
- Narodna skupština Republike Srbije [Narodna skupština]. (2019). *Zakon o nauci i istraživanjima* [Law on science and research]. (Službeni glasnik Republike Srbije, br. 49/2019-3).
- Peris-Ortiz, M., Farinha, L., Ferreira, J., & Fernandes, N. (Eds.). (2016). *Multiple helix ecosystems for sustainable competitiveness*. Springer.
- Price, A., & Delbridge R. (2015). *Social science parks Society's new super-labs*. Nesta.
- Puttick, R. (Ed). (2011). Using evidence to improve social policy and practice: Perspectives on how research and evidence can influence decision making. Nesta.
- Rogers, E. (2003). *Diffusion of innovations*. Free Press.
- RTS. (2018). *Vlada ulaže 65 miliona evra u IT sektor* [The government is investing 65 million euros in the IT sector].
 - https://www.rts.rs/page/stories/sr/story/13/ekonomija/3111214/vlada-ulaze-65-miliona-evra-u-it-sektor.html

- RTS. (2022). Kampus BIO4 jedinstveni prostor za razvoj biotehnologije i veštačke inteligencije [Campus BIO4 a unique space for the development of biotechnology and artificial intelligence].

 https://www.rts.rs/page/stories/sr/story/125/drustvo/4886237/bio4-kampus-projekat-idejno-resenje.html
- Shepherd, J. (2014). *How to achieve more effective services: the evidence ecosystem.* Cardiff University.
- Sinha, D. (2021). *The social sciences in a global age: Decoding knowledge politics*. Routledge.
- UNESCO & ISSC. (2010). World social science report 2010 knowledge divides summary.
- UNESCO & ISSC. (2013). World social science report 2013 changing global environments summary.
- UNESCO & ISSC. (2016). World social science report 2016 challenging inequalities: pathways to a just world summary.
- University Business. (2021). *The world's first 'social science research park' nears completion*. https://universitybusiness.co.uk/features/the-worlds-first-social-science-research-park-nears-completion/
- Vlada Republike Srbije [Vlada RS]. (2016). Strategija naučnog i tehnološkog razvoja Republike Srbije za period od 2016. do 2020. godine Istraživanja za inovacije [Strategy of scientific and technological development of the Republic of Serbia for the period from 2016 to 2020 Research for innovation].
- Vlada Republike Srbije [Vlada RS]. (2021). Strategija naučnog i tehnološkog razvoja Republike Srbije za period do 2021. do 2025. godine Moć znanja [Strategy of scientific and technological development of the Republic of Serbia for the period from 2016 to 2020 The power of knowledge]. https://mpn.gov.rs/wp-content/uploads/2021/12/Strategija-nauctehnol-razvoj-RS-Moc-znanja.pdf
- Vlada Republike Srbije [Vlada RS]. (2021). *Strategija razvoja obrazovanja i vaspitanja u Republici Srbiji do 2030. godine* [Education development

strategy in the Republic of Serbia until 2030]. (Službeni glasnik Republike Srbije, br. 30/18).

http://www.pravno-informacionisistem.rs/SIGlasnikPortal/viewdoc?uuid=774266c8-6762-401b-88f9-358e3235ce1b

Umrežavanje znanja društvenih nauka u funkciji rešavanja praktičnih problema i razvoja društva

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Sažetak

Razvoj savremenih društava zasnovan je na novijim konceptima ekonomije i društva znanja što podrazumeva sektorsko i disciplinarno povezivanje i integraciju svih raspoloživih znanja jednog društva i njegovo stavljanje u funkciju ostvarenja društvenih ciljeva (razvoja). Svrha ovog rada je da se sagledaju dometi ovog koncepta u svetu i napravi poređenje sa stepenom primene znanja i integrisanosti nauke u Srbiji, sa fokusom na društvene nauke. Shodno tome, najpre je dat pregled opštih globalnih trendova ali i izazova u oblasti društvenih nauka, obrazovanju i primeni znanja. Nakon toga predstavljeni su primeri dobre prakse i jedna studija slučaja (Društveni tehnološki park u Velikoj Britaniji). Potom je analizirano stanje društvenih nauka (i njihove praktične primene) u Republici Srbiji. Uočeno je da postoji solidan institucionalni okvir za razvoj i umrežavanje znanja ali i da postoje i otvorena pitanja i problemi na kojima treba raditi u budućnosti. U završnom delu rada su za identifikovane izazove ponuđena potencijalna rešenja koja bi mogla doprineti ublažavanju uočenih problema i efektnijem ostvarivanju postavljenih ciljeva.

Ključne reči: obrazovanje, umrežavanje, naučna integracija, društvene nauke, Triple Helix