European Proceedings of
Social and Behavioural Sciences
EpSBS

www.europeanproceedings.com
e-ISSN: 2357-1330

DOI: 10.15405/epsbs.2021.09.02.312

ICEST 2021
II International Conference on Economic and Social Trends for Sustainability of Modern Society

TO THE ISSUE OF SMART SOCIETY: FROM APPROACHES TO WORLD PROGRAMS

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Abstract

This study is aimed at studying approaches to interpreting such a modern phenomenon as smart society. In addition to approaches, the author attempts to interpret the phenomenon of smart society by studying and comparing existing concepts. Key characteristics of smart society concept are considered. Smart society is an extremely young concept as an inducement for social growth and would render a significant and unmitigated impact on society at all levels, for example, in terms of sustainability, life quality and wellbeing. The relevance of the study is called forth by the current processes of transformation of society, developing accordingly to the use of modern technologies. The key characteristics of "smartness" are defined, as well as the characteristics of the modern smart society directly. The definition of Smartness is considered in relation to each component of society (political sphere, public administration, services, economic activity, educational activity). A kind of "driving force" of smart society development stands out. The author overviews current foreign practice programs (Smart Japan, Smart Thailand 2020, Initiative "Smart Africa", Smart United Kingdom) the purpose of which is to create a smart society.

Keywords: Smart society, smart, society, smartness, rationality

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1. Introduction

Digitalization of society, politics and the economy affects the foundations of all spheres of life. What model of society will mankind receive as a result of the widespread development and application of automation and algorithmic data processing? What will such a digital society look like? What theories and concepts will help a person to understand and accept or not accept this transformation, and to what extent do discourses form and explain it? What way we can define the meaning of new networking devices and technologies that have become a natural part of the material structures of our daily lives and experiences?

All these questions, deeply concerning the distinctive features of digital societies, are fundamental and pose a large-scale problem for researchers. Empirical studies can only provide limited answers, as they are mainly focused on well-defined aspects of much larger phenomena. Notwithstanding, it is rather hard to detect and explain long-term and sweeping changes. In addition, it is obscure is the prevailing concepts and theories are able to capture the current transformations and the emerging digital society at all.

The current rapid social and technological changes lead to great uncertainty. A human being is in an increasing need to explain and understand current processes and transformations, as well as in shaping our common future. There is a demand to understand the real changes that are taking place in society beyond the excitement and pursuit of the widespread introduction of smart technologies.

2. Problem Statement

"Smart society" or "Smart nation" are two widely used terms to denote the vision of the future plan of the region, country, nation, humanity as a whole, to create an advanced information society. Information and communication technology (ICT) apparatus and services have become sustainable components of the revolution of the variety of life features. Anyway, future progress in cultural evolution, educational process, health issues, trade, agriculture and transportation schemes is achieved by virtue of ICT apparatus and services. Today, ICTs have a cast in protecting proprietorship and people; smart traffic guidance; energy savings; measuring the effects of environmental pollution; agricultural yields improvements; health and education guidance; management and control of potable water provision; addressing any challenges faced by megacities and down the country, and so on. Hereby, the world is gradually evolving to a "smart society." Fulfillments of promises of a "smart society" is based on three technological cores - a growing demand for high-speed connectivity, intelligent appliances and software and the principles of sustainable development (Creating the smart society, 2017).

A smart society consists of a "smart" and a "society," so the definition of a smart society requires us to reveal the essence of the "smart," as well as the sphere or characteristics of the "society."

2.1. The word “smart”

The definition "smart" is enormously applied in terms of "smart phone," "smart car," "smart house," "smart building," "smart agriculture," "smart school (training)," "smart city", "smart society". The roster of such word combinations could be endless. In the case of "smart car," "smart house," "smart building", "smart agriculture," the word "smart" denotes that the car, house, dwelling or agricultural place perform

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their activities autonomously. They are capable to use programming technologies or artificial intelligence sans proprietor`s manual manipulation. But, if you think about the phrase "smart school or learning," a subject performing an autonomous function, it could be not a thing, yet a human (student), and, therefore, this implies that student's study independently using intelligent devices and in the environment of a "smart school." The concepts of "city" and "society" include a kind of subelements: governance, citizens, lifestyle, and so on. Therefore, if we want to apply the definition "smart" to a city or society? We must understand that its management, patrials and lifestyle must be intelligent and reasonable.

2.2. The word "society"

Society is a kind of problematic unity of people, which has common interests, this unity can have a special culture and institutions. Society may belong to a particular ethnic group, to a national State, or to a wider cultural group, for instance, Western society. In society, people are united for religious, charitable, cultural, scientific, political, patriotic or other purposes. People unite in society under the influence of external and internal threats to the population and territory of the state, for economic reasons. Australian professor of sociology Mitchell Dean writes that society must be able to cope with the disintegrating forces of rivals and inequality, as it aims to integrate its manifold population into the economy of capitalist countries, according to political legal and liberal order (Dean, 2010).

3. Research Questions

In course of the study the following questions were raised:

- What approaches and interpretations of the phenomenon of smart society exist in the modern socio-philosophical knowledge?
- What are the main characteristics of smart society?
- What world practical programs of successfully building of a smart society exist in the world?

4. Purpose of the Study

The purpose of the current paper is to identify the most common concepts that interpret the phenomenon of "smart society" and its key characteristics on the basis of available research on the topic of work.

5. Research Methods

The author has used a number of general scientific and philosophical research methods, including: logically - analytical (when building the logic of research), the method of theoretical analysis of literature on the topic with the possibility of logical and comparative analysis of the studied data, analytical and comparative methods that made it possible to apply an interdisciplinary approach to the study of definitions of "smart society" and "smartness" (mindfulness).

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5.1. What is smart society: approaches and interpretations

Smart society can be defined as where its members trust the force and technological possibilities to make people more efficient. Ideally, smart society will permit us to concentrate on our funds, everyday matters and relationships which are crucial; and, on balance, to ameliorate health, well-being and sort of our life. Smart society is a kind of new stage in the periodization of history, where society pays special attention to the usage of smart technologies to fulfil person needs (Ardashkin**,** 2017). A group of technological advances is changing people`s way of life, way the people act and exist. Physical and unreal, so called, virtual domains of our lives are incrementally interlaced. Nowadays a magnificent number of antihuman actions are implemented by various gadgets and machines. The Internet of Things (IoT), M2M (Machine-to-Machine), hyperconnectability, applicable to all cases technologies, sagacious life and all-round computing are developing into incredibly sufficient corners (Katzenbach & Bächle, 2019).

According to the British writer, the politician and leader Charles Ledbeater: "Smart society" is a kind of society that produces and implements knowledge to become competitive and prosperous. The article, issued in 2017, The Smart Society of the Future Doesn't Look Like Science Fiction was published (Chakravorti & Chaturvedi, 2019). Authors Bhaskara Chakravorty, Dean of the Department of Global Business, USA, and Ravi Shankara Chaturvedi. These authors imply that digital technologies are the key point for smart society and, moreover, government must be perfectly integrating and implementing them. This process is to improve three significant outcomes: citizens' well-being, economy intensity, and institutions effectiveness (Chakravorti & Chaturvedi, 2019).

The authors of papers devoted to the society prosperity and development due to its philosophical analysis of the transformation of societies have invented and widely used the expression "Society 5.0." Scientists outstand that 'Society 5.0' or 'Super Smart Society' aims at usage of rapidly developing technologies. These technologies are to be produced within the enterprise and integrated massively into the everyday routines of usual people. Smart technologies presence enhances the effectiveness and money related activities of business. The goal of the Super Smart Society can be defined as balance establishment, especially in case when we display technologies pertaining the Internet of things and, of course, social robotics, adjoining intelligence, padding and virtual reality and prominent interfaces for the qualitative improvement of human life. Anyway, smart techs are obliged to give benefits to society (Hiroaki, 2019)

Brazilian scientists Miguel Carlos and Serpa Sandro dispute that individual-technological relations are so inevitable and anyway they will greatly contribute into the creation of super-intelligent society and will definitely bring the society to a better condition of existence (Ferreira & Sandro, 2018). The researchers suggested that the Society's 5.0 technologies would not only give the minimum services required by humans to survive, but would act to make life more substantial and notable; the constant interaction of humanity and technology are focused to create a prosperous, of great vitality, thriving, vivacious and human - oriented universe (Medina-Borja, 2017).

A similar idea was put forward a little earlier, in 2016, by Japanese researcher Tateo Arimoto. He notes that in society - 5.0, the different needs of society are subtly differentiated and necessary products and services in the essential quantities are to be provided at the very necessary time and to people who need them. A smart society allows all, without exception, people to receive high-quality services and live a

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comfortable, energetic life that considers the differences of these people, such as age, gender, nationality, membership in a particular religion or denomination and others, but does not infringe (Arimoto, 2016).

It is believed, that two problems need to be solved on the way to building a Smart Society. The first is to enable to use modern technologies. The second is to use them so that they serve in the interests of society and man, and not against them Man should dominate technology in modern times, as, at one time, man, according to Francis Bacon, should dominate the animal world (Samujlov, 2018).

5.2. Smart society: key features

2014 is a year of the World Telecommunication Development Conference (WTDC-14). There the participants tried to determine what smartness is and what should be included in the boundaries of a smart society.

Thus, the following characteristics of smart society, which is focused on reasonable production and provision of services, have been distinguished:

1) introduction of battery life through sensor technologies;
2) artificial intelligence is presented in the connection with machine/gadgets/computer learning technology;
3) provision of extensive services wherever and whenever they are required using apps, mobile technologies;
4) provision of user-oriented services through continuous communication between suppliers and consumers.

The final element - the provision of user-oriented services through constant communication between would-be users and makers – sounds to be most significant for giving society the title being smart. Smartness is a mandatory characteristic of each component of the smart society.

Society is a direct creator and participant in the political, cultural, educational and economic spheres of activity, public administration, services, and so on. The concept of smartness can be applied to each component of society. So, if we talk about the political sphere of activity, a smart society, this is a society in which citizens take an active part in the formation of politics and lawmaking. Smart society guarantees the openness of laws and political processes. Public administration and service in a smart society imply that citizens take an active part in various social processes of public administration service, the open attitude of the public management process and the provision of public services, the transition from socially oriented management to civic-oriented management and the provision of services. Joanna Bryson, professor of Ethics and Technology at Herty School (Berlin), calls the result of human activity as a big pie and wonders: how big a pie we can all bake together and, most importantly, how correctly we will share it and what is "right" and how to cut it. Bryson (2019) argues, that we use social security to create public goods that benefit everyone. But, nevertheless, every person needs enough pie to thrive, and this is a problem of inequality.

Industry and economic processes in a smart society are characterized by the development of services and goods that perform work autonomously, operate using programming and technologies of artificial

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intelligence; realize the demand and interest of citizens in industry and economic activity. Smart society implements the idea of not only the use of all extracted resources, but also the effective use of waste in the process of recycling. New information technologies should be used to ensure efficient use of resources (Batagan, 2012).

The production of knowledge also involves the active participation of ordinary citizens in the production of knowledge, collective intelligence. The cultural development of smart society implies the cultivation of the harmonization of different styles, relationships and values of life by dint of enjoying equal rights among all the partials, irrespectively of their religious denominations, level of education, race, age, material situation, place of residence (we are talking not only about countries, but also about regions, cities and individual streets). Smart society creates the conditions for the possibility of an innovative and citizen-oriented lifestyle (Matzner & Carsten, 2019).

The development of digital technologies influences the formation a smart society. Intelligent technologies improve our lives in three main ways: nowadays almost everything is performed much more efficiently and successfully, digital technologies change relation standards, make possible fresh kinds of relations, expand, strengthen our ties with each other. The Internet has a great influence on international business and interaction within entrepreneurial culture. Data warehousing, which is mainly cloud-based in the modern reality, integrated trades, and "corporate social networks," which support inside and outside real-time interaction between businesses, help countries facilitate the prosperity of their nations. (Human enhancement and the future of work, 2020). So, we can conclude that technologies, which are digital and smart, bring the idea of smart society closer to the reality.

6. Findings

As a result of the current research, the phenomenon of smart society was interpreted and revealed. Definitions of "smart" and "society" are being developed. Concepts of foreign scientists from Japan such as Yoshihiro Sh Kunio and Norihiro Suzuki (Yoshihiro et al., 2018), Germany such as Thomas Christian Böchle, Tateo Gladden (2016) and Joanna Bryson (2019), the USA such as Mitchell Dean (2010), Poland such as Matthew Gladden (2017, 2019), Turkey such as Lorena Batagan (2012), Brazil such as Alexandra Medina Borja (2017) and other researchers, whose scientific research is devoted to all kinds of issues concerning the development of smart society, are considered.

6.1. World programs – smart society practices

The Smart Japan, Smart Thailand 2020 and Smart Africa Initiative ICT (Information Communication Technology) Strategy are examples of world practises of smart society programs implementation. The results of the surveys of countries mentioned above on the growth of the smart-society, this society or nation is described as a state in which the citizens life quality, as well as the efficiency, productivity and competitiveness of society, are significantly improved due to the wide dissemination of mobile gadgets, sensory things, artificial technologies, which are all ICTs. The Smart Africa Initiative has proclaimed five key points, so called, pillars, that are necessary for the use and implementation of advanced ICTs. The first place is given to policy. The second goes to access. E-

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government is on the third position. The fourth pillar is private entrepreneurship. This chain is closed by the sustainable development. These key things are built into four end-to-end tools that are providing a living embodiment of Smart Africa ideal. The tools are necessary to innovate, provide communication, advocate and mobilize recourses (BICS joins SMART Africa Alliance…, 2020).

The United Kingdom of Great Britain defines the following pillars on which smart society should rely: data culture; authorized, digitally literate citizens; empowering public institutions to offer sound leadership; the creation of favourable infrastructures; available platforms and market - places. Modern society needs to focus on these key factors for getting benefit from the next amazing intellectual boom (Creating the smart society, 2017).

Matthew Gladden's scientific paper entitled «Who Will Be the Members of Society 5.0? Towards an Anthropology of Technologically Posthumized Future Societies" is dedicated to Japanese development. Transformation of Japan's society is in the center of discussion. It shows the actions and the efforts of Japanese scientific and managing worlds to expand 'Society 5.0'. (Gladden, 2019). Gdadden proves according to Japanese government plan and scientists, grade of everyday life of nations will become brighter by increasingly close cooperation with artificial intelligence. Nevertheless, the evident antinomy is the fact that more "human-centered" techs imply the world, where nations will exist alongside a growing multitude of increasingly self- managing "Social robots".

The research aspires tracking estimated human orientation on 'Society 5.0'. Feeling difference between the "technological" versus "non-technological" posthumanizatioal processes and the implementation of anthropological model, Matthew Gladden shows differences of human's nature, marks that even "non-human" fellows ought to be the participants in 'Society 5.0'. The author talks about six groups of potential people and, so called, not people, however regardless their status they are still members of "Society 5.0". Also, he is intent on the fact that all six have had equivalents in earlier societies. This idea let him make a conclusion which suggests that the nature of Society 5.0 considered via social scientific analysis could turn to have an unexpected filling (Gladden, 2017).

Japanese fifth estate assert "Society 5.0", where nations will manifest an opulent imagination to meet the variegated requirements and troubles strewn via society, and ways for solving them. It will be possible due to unlimited originated skills to provide necessary solutions by means of data and digital technologies. "Society 5.0" is believed and supposed to be fantastic society, where digital transformation joins incredible human ability for creativity. It will bring about "solving problems" and "creating values». Thus, the whole planet population will come to sustainable development. This theory is to prove the accomplishment of the goals of sustainable development adopted by the United Nations (Yoshihiro et al., 2018).

7. Conclusion

Taking into account all considered points of view above, it can be concluded, that we can easily characterize smart society as sure as a society that successfully uses the capability of digital technologies and related appliances, as well as the use of digitized network in order to enrich human's being. Smart society is the result of modern reality and a kind of "dream of the future» because of the heady heights and ubiquitous use of information and communication technologies. We can suppose, that the integration of

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sensory (embedded in us), communication, and computational advances, converging with our increased knowledge of human perception, cognition, behavior, and physiological functions, is likely to create this future.

Thus, a fundamental conceptual rethinking at various levels is necessary in order In the new reality, the cyber-physical world will cooperate and work side by side with the human world. On earth, we will be the witnesses of this future only with the advent of bold new research designed to catalyze interdisciplinary social and natural sciences and technology. This convergence is to form partnerships between people and technologies that deliver a sustainable, dynamic, livable, people-centered world. The idea that a smart society is a society in which people, high technology and the natural environment will be united in a variety of temporal and spatial scales, anticipates the future, and a person tries to construct a new model of society that will be able not only to meet the ever-increasing needs of a person, but also to promote prosperity in his further development.

Acknowledgments

I would like to thank Professors of Tomsk Polytechnic University Igor B. Ardashkin and Olga T. Loyko for their extraordinary support in this thesis process.

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