

УДК: 001.8 + 316.77

## INFORMATION SOCIETY: A LIBERAL PHENOMENON

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**Abstract:**

There is evidence that modern society has witnessed a global information revolution, comparable to the consequences of the industrial revolution in Europe in the 17-18 centuries. The global proliferation of liberal ideology across the world is also a noticeable fact in the current period of the history of humanity. This article addresses these two phenomena and seeks unequivocal evidence that they are closely interconnected.

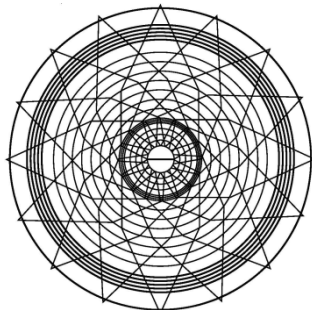
**Keywords:** information revolution, internet, democracy, globalization, technology

### **The features of a produced output as a general characteristic of the historical era**

The industrial revolution caused extensive social transformations and the fundamental principles of economic and political development have been modified with the coming of industrial society. According to the Cambridge Economic History,

“reviewing the whole of industrial activity in the early 18th century, the problems to be solved by technological invention fall into three classes: those in which the object was to perform by mechanical linkages operations normally effected by the hands of an artisan; those concerned with the use of power; and those related to metallurgical and chemical processes” (E.E. Rich, C.H. Wilson 2008: 145).

However, the result of the industrial revolution is not limited to the application of new technologies in production and the transition to a new technological mode. The result of industrial revolution included a number of social-economic, political, legal, military, international and other consequences that fundamentally transformed the structure of society, and became a significant landmark in the history of humanity.



The produced output is one of the principal differences between agricultural and industrial society.

“The features of agricultural output are pretty much the same compared to the natural resources that they are made of. The consumer features of industrial output constitute the result of a complicated manufacturing process of the natural resources” (Chetvernin 2010: 25).

The transition from an agricultural society to industrial has also been followed by significant social-economic and political changes, however the definition provided above allows us to make further conclusions.

Consumer features of the produced output are the basis for this definition. Historical data on Gross Domestic Product (GDP) and population size provided by British economist Angus Maddison, allows us to track down the correlation between the production of commodities and economic development in different countries.

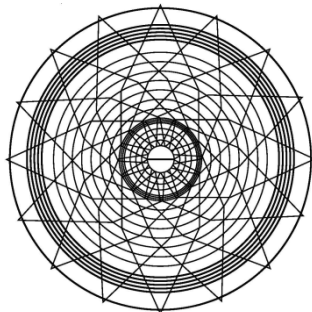
**Table 1.** GDP growth and population growth ratio in the Netherlands, Great Britain, China, India. 1000 - 1990 (part 1)

	1000	1500	1600	1700	1820	1850	1870
Netherlands	1,00	1,20	1,78	2,32	0,30	1,69	1,85
United Kingdom	1,00	1,45	1,47	1,57	1,18	1,96	2,74
China	-2,41	1,30	1,00	-1,00	1,00	1,00	-2,01
India	no data	1,39	1,00	1,00	0,88	1,00	1,00

Source: Angus Maddison. *The World Economy: Historical Statistics*. Available at <http://www.theworldeconomy.org/> (accessed 20.06.2016)

Table 1 contains data for four countries which were most (Great Britain and the Netherlands) and least (India and China) affected by industrial revolution. According to this table, the GDP growth and population growth ratio in the United Kingdom and the Netherlands before the 18th century is approximately the same as in India and China. However, after the industrial revolution the ratio in the Netherlands and United Kingdom changes, mostly because of the increase in GDP. In India, the growth rate remains the same, and in China, a decline is noticeable due to decreased population, as well as other domestic economic problems.

Global consumption and global production and agricultural society had almost no distinction in all countries and regions of the world, while individual consumption was the same despite geopolitical factors, climate or natural resources. Supposedly, people in agricultural society consumed everything they produced.



**Table 2. GDP per capita. 1 - 1940. (part 1)**

	1	1000	1500	1600	1700
Austria	425	425	707	837	993
Belgium	450	425	875	976	1 144
France	473	425	727	841	910
Germany	408	410	688	791	910
Italy	809	450	1 100	1 100	1 100
Netherlands	425	425	761	1 381	2 130
United Kingdom	400	400	714	974	1 250
Russia (former USSR)	400	400	499	552	610
Mexico	400	400	425	454	568
China	450	466	600	600	600
India	450	450	550	550	550
Japan	400	425	500	520	570
Turkey	550	600	600	600	600
Egypt	600	500	475	475	475
World average	467	453	566	596	615

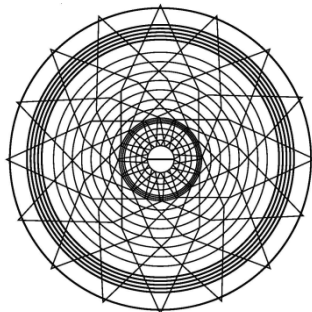
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Table 2 demonstrates that GDP per capita in agricultural society was almost the same. The table indicates that the average GDP per capita value differs insignificantly among all countries. The development of agricultural society was mostly local and dependent on population size. National GDP varied in different countries, but its growth rates had always been directly proportional to the population growth.

**Table 1. GDP growth and population growth ratio in the Netherlands Great Britain China India. 1000 - 1990 (part 2)**

	1870	1890	1900	1913	1930	1938	1960	1970	1980	1990
Netherlands	1,85	1,67	1,22	1,78	1,99	0,34	2,14	3,28	3,18	3,59
United Kingdom	2,74	2,05	2,10	1,80	21,12	4,71	3,68	4,17	14,65	11,17
China	-2,01	1,32	1,17	1,13	1,23	0,81	1,50	1,66	2,34	3,76
India	1,00	1,83	2,44	2,62	1,68	0,27	1,73	1,54	1,29	2,20

Source: Angus Maddison. *The World Economy: Historical Statistics*. Available at <http://www.theworldeconomy.org/> (accessed 20.06.2016)



It is evident that the earnings of the population of industrially developed countries increased at the beginning of industrial revolutions in Europe. Part 2 of table 2 indicates this trend. Industrial production became the driver of Western countries' economic development.

**Table 2. GDP per capita. 1 - 1940. (part 2)**

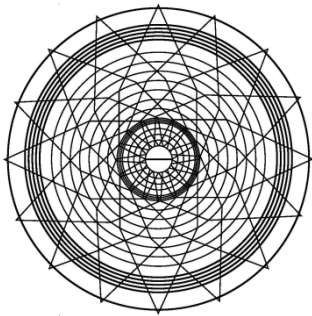
	<b>1820</b>	<b>1870</b>	<b>1900</b>	<b>1913</b>	<b>1940</b>
Austria	1 218	1 863	2 882	3 465	3 959
Belgium	1 319	2 692	3 731	4 220	4 562
France	1 135	1 876	2 876	3 485	4 042
Germany	1 077	1 839	2 985	3 648	5 403
Italy	1 117	1 499	1 785	2 564	3 505
Netherlands	1 838	2 757	3 424	4 049	4 831
United Kingdom	1 706	3 190	4 492	4 921	6 856
United States of America	1 257	2 445	4 091	5 301	7 010
Russia (former USSR)	688	943	1 237	1 488	2 144
Mexico	759	674	1 366	1 732	1 852
China	600	530	545	552	
India	533	533	599	673	686
Japan	669	737	1 180	1 387	2 874
Turkey	643	825		1 213	1 675
Egypt	475	649		902	
World average	666	870	1 261	1 524	1 958

Source: Angus Maddison. *The World Economy: Historical Statistics*. Available at <http://www.theworldeconomy.org/> (accessed 20.06.2016)

With the start and expansion of the industrial revolutions in the 17<sup>th</sup> and 18<sup>th</sup> centuries across Europe, a number of countries experienced significant transformations. The new means and instruments of manufacturing and production discovered new ways of individual enrichment. In the countries with dynamic development of industrial technologies, the GDP per capita increased substantially – up to 5 000 – 7 000 dollars. That was the period when basic capitalist ideas appeared (such as “The Wealth of Nations” by Adam Smith), significant domestic and international wealth disparity had been outlined.

Consumption in industrial society substantially exceeded production. The Age of Discovery became possible due to the appearance and development of transport and communication during the industrial era, while newly discovered trade routes created new opportunities for international trade. Developments in transport and military technologies triggered the process of colonization, frequently accompanied by bloody military conflicts.

Industrially developed countries of the industrial era remain the leaders of today's world. However, figure 1 demonstrates that industrial production is no longer a driver of economic development.



The global growth rate in the second half of the 20th century is much more intensive and uneven. According to the provided data, it took half a century for most of the countries to reach the same level of economic development that would have lasted several centuries in the past. First, there no longer appears to be a direct dependence between population growth and GDP growth. Second, domestic and international wealth disparity becomes more noticeable. For half a century the American population has less than doubled with 6.4 times GDP growth, while GDP per capita grew three times. The Chinese population increased by a factor of 2.3 but the GDP increased by a factor of 17. However, by the end of the century it turned out that economic indicators, such as GDP per capita, have no relation to the size of the population. The United States (28 000 USD per capita, population 300 million), Canada (22 000 USD per capita, population 30 million), Switzerland (22 000 USD per capita, population 7 million) are global leaders in GDP per capita. However, the countries with large populations (China, India – more than a billion people) now have the lowest GDP per capita value – 3400 and 1800 USD.

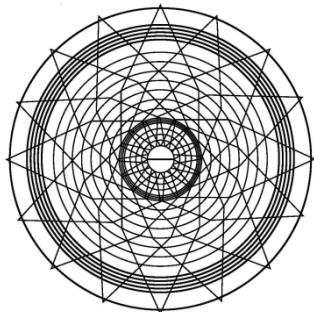
During the second half of the 20th century, for example, the British GDP increased 4 times (from 300 million to 1.2 billion) along with very slow population growth (from 50 to 59 million people). GDP per capita increased respectively – from 6 000 to 20 000 per capita.

The GDP and population size indicators demonstrate the changes that took place due to the industrial revolution. However, if we agree with the statement that in the second half of the 20th century humanity experienced an information revolution, it is safe to say that today we are witnessing the same gigantic social shift as seen in the industrial revolution a couple of centuries ago. Economic, domestic and foreign affairs are developing today in a totally different way. Workforce productivity is not related to population size, as it used to be during both the agricultural and industrial epochs. Wealth disparity becomes more and more noticeable: while by the end of industrial era the value of this indicator was a factor of 2.5, today high-income states are 11 times richer than low-income countries (World Development Indicators 2015). In absolute values, US GDP was comparable to the one of the other countries and equaled almost a quarter of world GDP.

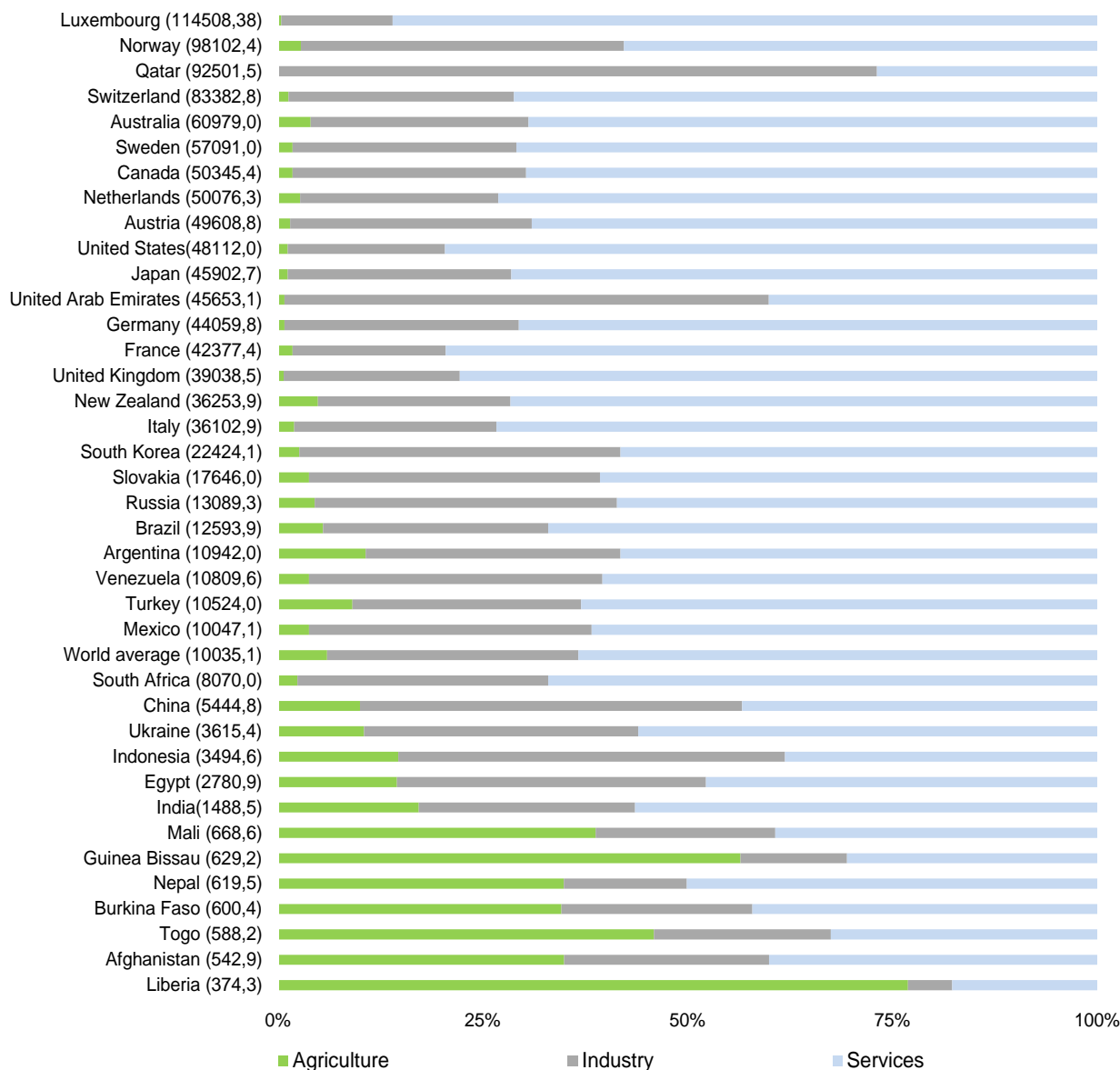
The data in figure 1 proves that industrial production no longer defines economic development. A direct correlation should be noticed between the service sector proportion of GDP and GDP per capita: a higher service sector share (70-80% of the national GDP) corresponds to a higher GDP per capita. The inverse is true as regions where agricultural or industrial production prevails have the lowest GDP per capita value.

Nevertheless, this conclusion is not quite universal. Due to wide diversification of different services, applying a universal approach to researching this field of economics is irrelevant. In every country the services sector develops in accordance with the special characteristics of a national economy. In some sense the services sector is closely connected to manufacturing production. The development of a service sector in a national economy does not prove the decline of the industrial era; however no one would argue with the fact that the information revolution played a significant role in the service sector.

This general logic suggests that if an agricultural society produces agricultural output, industrial society produces manufacturing output; information-related production is likely to be the driver of the economy in an information society. It is important to investigate the specific features of information as an economic recourse, and to figure out the basic production and consumption differences between information and industrial products.



**Figure 1. GDP per capita (USD), agriculture, industrial and service share of GDP (%), 2011**

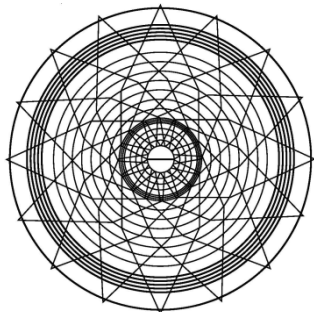


### The concept of information

There are no feasible econometric indicators that demonstrate the importance and significance of information in today's economic and political development. Nonetheless, it is important to investigate what the information resources are and why they are more effective than industrial resources in the development of modern society.

Information has always been a necessary resource for development. Whether an individual, society or a government, everybody needs information as well as any other subject of national or





international system. However, it is only today that information is becoming a strategic asset. There is also no commonly accepted understanding of information.

There are two basic approaches to understanding information - humanitarian and technological. One of the first fundamental theories related to information belongs to Russian scientist Vladimir Vernadsky. In the early 20th century he came up with the idea of “noosphere” – “*a new biosphere’s state of being, where a mind dominates the matter*” (Vernadsky 1944).

Before the second half of the 20th century, the general understanding of information was limited to messages or communications between people. However, along with further information technology development, so-called statistical theories of information have appeared. American scientist Norbert Wiener was one of the pioneers in this field. Professor of mathematics at Massachusetts Institute of Technology, the founding father of cybernetics, he also gained recognition as a distinguished philosopher. He defined information as “*a name for the content of what is exchanged with the outer world as we adjust to it, and make our adjustment felt upon it*” (Wiener 1954: 17).

In the second half of the 20th century many scholars addressed the societal transformations that turned the industrial age into a new quality. Most of them link this phenomenon with the increasing role of information and telecommunication technologies.

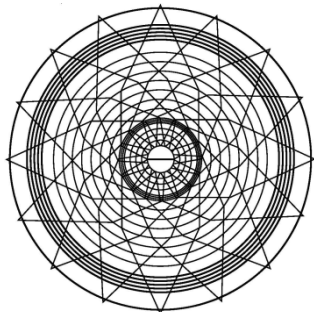
John Kenneth Galbraith, a distinguished American economist, in his works (most popular of which is “the new industrial state”) noticed different qualitative developments in different fields of economic activities in the second half of the 20th century. In particular, he argued that during the past 70 years there were significant innovations and transformation in economy, no matter how they are measured. The most evident is the increasing complexity and perfection of technology in the field of material production.

Another outstanding economist and philosopher who contributed to the understanding of information economics was Peter Drucker. By the end of 1940s to the early 1950s he investigated the problems of management and production organizations. He is considered to be the founding father of management as a separate branch among other economic disciplines. He noticed that “knowledge workers” occupy more and more work places in the American labour market. During the 1950s he predicted that by the end of the century one-third of the American workforce would be “knowledge workers”.

One of the founding fathers of the classical information society concept is Alvin Toffler and his “Third wave”. The basic economic transformation in the “third wave generation” related to information society is a “shift from production of the others towards production for selves, in other words the buyer is engaged in the production process”.

The most fundamental work on the economy of information society is Manuel Castells’ “Information age”. His main argument is related to the creation of a “new society” which evolves due to the deployment of networks, provided by information and telecommunication technologies, in which information flows have priority.

Many different social scientists investigated the problem of information society and their opinions differ substantially. Though, thorough comparative research is an outstanding and very interesting separate task, not assigned in the article. However, it is very important to highlight that these works are very interdisciplinary - mostly social sciences, political science, economics and philosophy. Secondly, the centre of all these concepts is an individual, whose role in this new society increases significantly. This statement is yet more evidence that proves the liberal nature of information society.



Most of the papers devoted to the phenomenon of information are interdisciplinary. There are four basic fields of knowledge related to understanding information - mathematics, natural sciences, technical and social-humanitarian sciences. According to the outstanding Russian philosopher V.S. Stepin, intradisciplinary and interdisciplinary methods of creating new knowledge assure scientific breakthroughs in new disciplines.

“Every time these breakthroughs discover new opportunities for technological innovations in different fields of human life. That is why researching historical evolution of knowledge growth is critical for understanding not just the science itself but also the civilizational changes that science creates” (Stepin 2006: 153).

Information is a very ambivalent and complex notion, and the variety of opinions on this matter does not allow us to make any universal conclusions. According to Etymological Dictionary, cybernetics - the study of human control functions and of mechanical and electronic systems designed to replace them, involving the application of statistical mechanics to communication engineering; *Origin:* < Greek kybernēt ( ēs ) helmsman, steersman ( kybernē-, variant stem of kybernân to steer). The word “information” originates from “instruction, teaching, a forming of the mind < Medieval Latin, Latin: idea, conception”.

In other words, information is a piece of knowledge, formalized (articulated) through a word, or in writing, and in the 20th century – on electronic devices etc. “Cyber” relates to systematic organization of information and management. Communication management, one of the major elements of governance, became especially important because of the rapid development of information technologies in the 20th century. This approach is different to the ideas of Vernadsky, who never considered separate individuals to be creators and consumers of information; according to Vladimir Vernadsky, humanity as a single entity produces intellectual output and thus contributes to the development of the whole planet.

This is partly the difference between the Russian and American approaches to information communication. Russian researchers think of information as a philosophical category, while American researchers usually pay more attention to technological side of the problem.

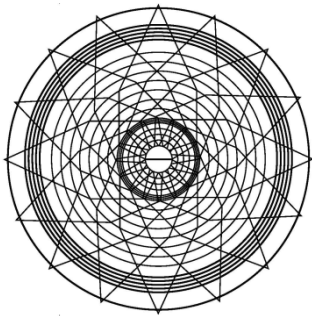
There are many definitions of information. In this paper, information means data, knowledge about something, any result of intellectual activity of a human being, accessible through any physical device (piece of paper, flash drive, CD-ROM, etc.).

This definition does not claim to be universal, and it does not take into consideration the value of information for different individuals, and it has many other disadvantages. However, this definition includes the possibility to count the quantity of information. Since most information today is stored on digital devices, the unit of measuring information can be a bite. This definition also unites philosophical and technological accents of Russian and American approaches to information. According to this definition information is not only an articulated knowledge, but also stored in any format and may be accessed by other individuals.

The human brain may be considered as a universal information storage device, but there are few methods of gaining “access” to the stored information (it would also be quite inappropriate to call a human brain a device). Modern information technologies discover new ways of accessing, creating and working with information stored on any kind of digital device. “Access” to information inside a human brain is a promising neuroscience research, as well as science fiction fantasy.

Inalienability is the principal feature of information. Unlike material units, such as energy or any other resource, information sharing does not mean alienation from one individual to another.





In one of the letters, devoted to US patent development, Thomas Jefferson commented on this issue in 1813.

“If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density in any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation” (Jefferson 1854).

Every piece of information has an author and an owner. It is important to make clear that in this paper authorship or ownership are not legal categories. Information is the result of a human being’s intellectual activity. Using the example with the invention of the law of gravitation, Isaac Newton is definitely the author of this information, though he is not the inventor of the gravitation itself. Whoever studies Newton’s research becomes the owner of this information. The gravity law existed long before Newton’s research, and he deserved credit for articulating this knowledge into a form understandable for others.

A person gathers information through communication, and through using information technologies – a book, telephone, Internet, etc.

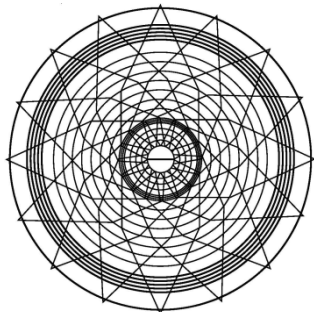
Information also has other features: integrity, credibility, accessibility, confidentiality and timeliness. A person who gained information tends to save these features. Sometimes all features are equally valuable, sometimes some are more important than the others.

Each of the mentioned features is interconnected; each has its own peculiarities. Accessibility for example has two sides. If information is confidential, it is important to make sure that only authorized people get access to it. From the other side, such information, as, for example national legislature, is valuable only when people have full access to it. In this case, accessibility means ensuring public access to information.

Thus, the problems of information security are related to preventing the information from losing any of the features of the possessed information. Information security is the process of maintaining the features of the possessed information. Interest in the subject of information space may contradict. Information interaction is inevitable, and every time the subject shares information there is a risk that some or all of the features are disturbed.

Every individual does his best to secure the possessed information. However, due to the features of information described above, the ideal information security is only possible on the condition of absolutely no communication. This circumstance excludes any opportunities for development whatsoever, so such a strategy of information security is pointless.

Maintenance of the features of information is the basis for any intellectual property legislation. Legal experts introduced the term “exclusive rights in relation to intellectual property”. This notion implies the superiority of the owner of information over the rights of other people who gain access to this information. In other words, if somebody gets access to information, he is



responsible for maintaining the features of this information intended by the intellectual property rights owner. In the case that someone violated these features, they should be punished.

The development of legislation related to intellectual property appeared shortly after the invention of the printing press. In 1710 the United Kingdom adopted the “Queen Anne Statute”, which was the first legislation on copyright (the right to copy the information). The law prescribed a copyright term of 14 years, with a provision for renewal for a similar term, and all works published before 1710 received a one off 21 year copyright term (Lessig 2004).

The features of information can be violated only in the case of information sharing. Today, the development of information technologies has brought humanity to the creation of a global cyberspace, the Internet, a universal information-sharing environment. However, individuals are not the only subjects of the cyberspace. Comparing the nature of global cyberspace and the system of international relations, it is safe to say that international relations actors – nation-states, non-state actors, social groups, transnational corporations, national and international organizations and many others – are usually both the actors of international relations and subjects of cyberspace. The eventual Internet user is always an individual, who can however be a member of a different cyberspace and international relations actors.

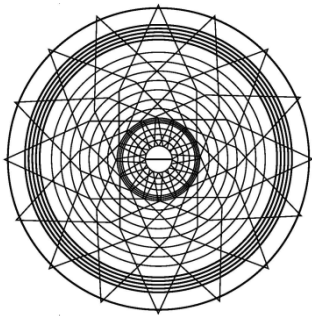
#### **The limits of government regulation in the field of information**

Cyberspace should not be idealized, as it is wrong to believe that once shared any information becomes available to everyone. Despite nearly unlimited technological communication possibilities, people and subjects of international relations and cyberspace today are not equal. The problem of information inequality is a promising topic for different disciplines – for example mathematics. As for social sciences, it is worth mentioning that information inequality (or digital divide) consists of the actors’ capabilities to create and manage information, as well as to secure its’ features. The collected knowledge and the sufficient level of technological development define these capabilities. Information resources define the actor’s information superiority towards all others.

As has been noted above, information becomes a matter of property, and consequently a matter of legal relations. Unlike all tangible matters, information cannot be subject to the same legal regulations. Intellectual property regulations appeared as a separate discipline as part of the science of law due to such a peculiarity. This discipline had appeared long before the information revolution, and it became critical in the 20th century.

Besides, government regulation of information deserves special attention as political thought. If information is perceived as property, such key notions for the theory of state and law as freedom, independence, equality, justice, aggression, violence and all others are filled with new meaning. Along with that, approaches to the very phenomenon of information as private or common property aggravate contradictions between the ideas of capitalism and socialism.

From the point of view of government regulation, private or public information ownership relates to the performance of government functions. National security is the oldest and most traditional function of the government. Information security as part of national security can only be possible if the government controls all information within the state, or at least has access to it. The socialist model denies private property, and in this case the government is the only institution capable of managing information within national sovereignty. Technologically such a model is possible (given that all information is stored on devices), but very hard to accomplish. George



Orwell's "1984" and Ray Bradbury's "Fahrenheit 451" dystopias picture such a system in very gloomy scenarios.

Theoretically, the organization of information management in a socialist state is a system. The potestary paradigm requires strong hierarchy in distribution of information resources: general government institutions tend to gain control over information, regulate everyone's access to information. The system can be very sophisticated and multileveled, it can include sub-systems, and every element has the same features as the system as a whole, and changing one of the features changes the system. All other subjects of government regulation are unequal compared to government institutions and do not have the ability to manage information. In other words, general government is fully responsible for managing and ensuring the security of all information in the country.

According to some reports on the Internet, the Chinese government applies these principles. The authors of the Freedom House "Freedom on the Net 2012" report quote Chinese experts and say that the Chinese Communist Party implements a paradoxical "two-hand strategy" for managing digital technologies: promoting access for the purposes of economic advancement on the one hand while attempting to secure control over content, especially political communication, on the other. The Soviet government succeeded in creating such a system, and some of soviet traditions unfortunately still remain active in Russia.

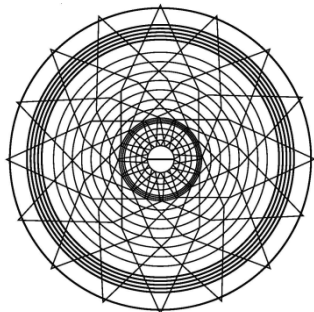
Capitalistic society perceives information in a totally different way. Every subject of government regulation (including the government itself) is the owner and copyright holder of the information. The government is responsible for guaranteeing the rights to information in compliance with national intellectual property legislation. Every subject of such an information management organization is an element of a network, and possesses unique features not relevant to the whole network. Unlike a systematic interaction, elements of the network have more opportunities for communication and a lower degree of interdependence. If one of the elements of the network changes the whole network will remain stable. Such an information management organization is more flexible and provides broader opportunities for growth and development.

Such an organization also has some disadvantages. The recent development of Internet facilitates network communications around the world. On the one hand, free international information communication encourages multiple transnational intellectual rights violations, from another one but on the other hand some cases do not allow application of norms of national legislation to punish the abusers.

The Internet is a global information communication network. The countries where the development of information technologies was not fast enough today demonstrate the importance of these factors on national economies. National governments do not have the authority to interfere in the global information space conflict. The existing norms of international law do not guarantee information security, and the continuing process of the information revolution creates new forms of intellectual property rights violations.

The liberal paradigm suggests that within national sovereignty all citizens are equal and possess equal freedom limited only by law. Citizens of the rule-of-law state possess equal rights in the field of information. Every person has an equal right to create, access and disseminate information. Restricting a person's ability to obtain, share or secure information is considered an unfair and illegal action.

Modern information technologies may be a valuable competitive advantage, and in some cases can be seen as a sort of manufacturing facility, which is only effective through communication.



## [Научные статьи]

Шариков П.

*Информационное общество  
как либеральный феномен*

The owner of information shares it with the others, but keeps his ownership rights and demands that other actors comply with these rights. Every citizen claims equal rights on access, management and distribution of information within the framework of national sovereignty. The free market economy suggests that the owner's rights are to demand all other users to adhere to his rights. The government is responsible for ensuring compliance and securing the owners' rights.

The government of a socialist state forces all people to be equal in relation to information. Security guarantees imply government control over all information resources to the maximum possible extent within the framework of national sovereignty. The "knowledge diffusion" that takes place today erodes national sovereignty. According to the concept of socialism, information is a "common good". No other subject has the right to demand any special intellectual property rights except for the government.

It is evident that neither the capitalist nor socialist approach to information can be implemented to a full extent. Today intellectual property rights are the result of liberal thought, and ideas on Internet governance are the result of social policies.

Most likely, the problems of government regulation over information resources will become a more challenging issue of political, economic, and other humanitarian sciences. Free market ideas were the reason for the economic success in Northern American and Western European countries.

In the second half of the 20th century liberal thought was especially popular. For example, Samuel Huntington's concept of the waves of democracy. Samuel Huntington's "Third Wave" was published in 1991, which was a very significant year in the history of global democratic movement. Samuel Huntington wrote:

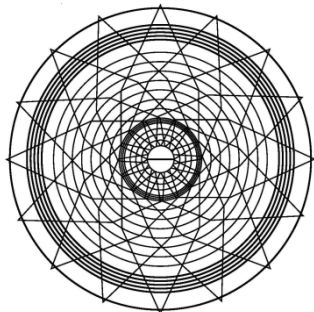
"the initial push toward democracy in the West occurred in the first half of the 17th century. Democratic ideas and democratic movements were an important, although not a central, feature of the English Revolution. By the late 20th century many more countries possessed democratic institutions" (Huntington 1991: 13).

Furthermore, Samuel Huntington is sure that "*the movement towards democracy was a global one*" (Huntington 1991: 25).

The information revolution gave liberal ideas a new impetus. Government control over information extends to the existing information as well as the process of creation of information.

The experience of modern economically successful countries proves that, the development of information resources mainly takes place in the private sector, and commercial success is only possible on the condition of mass user consumption. The role of the government is limited to creating a favourable economic environment for innovation-driven business activity. The private sector contains significant financial and technological resources, which are only effective in a free market economy. Effective government-private partnership is the cornerstone of national economic development, which allows the unification technological and commercial resources of the private sector and authoritative powers of government. Together the general government institutions and commercial economic enterprises form some sort of checks and balances system. Economic enterprises try to benefit from this system and the government creates a favourable environment and uses the information output to fulfil its own functions.

Today, most successful entrepreneurs share liberal ideas. Steve Forbes, the leader of Forbes Media is sure that



“the free-enterprise system is – and has always been – the best way to unleash the creativity, inventiveness, and energy of people and mobilize them to meet the wants and needs of others. That’s because free-market transactions, far from being driven by greed, are about achieving the greatest possible mutual benefit, not only for the parties directly involved but eventually for the rest of society” (Forbes, Ames 2011: 8).

Free-market economies are based on many different economic theories that appeared in the 20th century. Friedrich Hayek is one of the most renowned classic liberal economists. He also paid special attention to the role of knowledge in economics in his research works. Friedrich Hayek is one of the most popular libertarian authors, and in his book “Individualism and Economic Order”, he concludes that

“In a centrally planned society the selection of the most appropriate among the known technical methods will be possible only if all that knowledge can be used in the calculations of the central authority. This means in practice that this knowledge will have to be concentrated in the heads of one, or at best, very few people who actually formulate the equations to be worked out” (Hayek 1996: 155).

In fact this conclusion proves the inconsistency of state planned economic ideas.

Economic competitiveness transforms along with information technology development. The universal awareness environment discovers new risks of unfair competition, economic intelligence, industrial espionage and other ways of stealing commercial secrets. At the same time information advantage provides opportunities for economic competition.

Those who manage to advance the others in innovations while securing their own information resources will definitely have an economic advantage. There are a lot of historical and current examples that prove that economic development based on borrowing technologies works, rather than inventing new ones, which never succeeds. It does not matter whether the “borrowing” was legal (purchased) or illegal, it is important that this model makes innovative advancement impossible. An economic system that adopts alien industrial achievements is uncompetitive.

Information resources are widely used in many industries of free market economies, including those critical for national security. Permanent import of technologies cannot ensure stable economic growth, international competitiveness and national security.

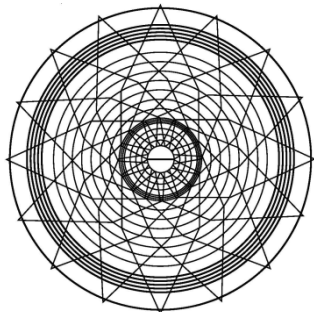
Currently “information technology imitation” takes place around the globe, which is basically – the violation of intellectual property rights. Countries where socialist policies prevail are more often accused of intellectual property right violation. In the global cyberspace it is hard to define the national affiliation of a violator. The US Trade Representative considers the following countries to comprise their black list of the world’s worst intellectual property rights violators: Ecuador, China, Paraguay, Indonesia, Argentina, India, Ukraine, Philippines, Thailand, Colombia, Mexico and Pakistan (The Office of the U.S. Trade Representative 2011).

It seems that socialist traditions in these countries are very strong, so people treat information as a common good in a much broader sense than in the United States and Western Europe.

### **Conclusion**

The arguments above do not give a definite answer that the modern world has become an information society. However if the development of the described trends continues, humanity will embark on an era of information. Today we see the embryo of the information society, which will undertake a long evolutionary path. Along with noticeable changes that occur due to the information revolution, industrial factors of development also play a prominent role.





## [Научные статьи]

Шариков П.

*Информационное общество  
как либеральный феномен*

From one point of view, some trends that appeared in the industrial era are intensifying today. First, increasing wealth disparity as a result of the new manufacturing facilities. This statement is fair for domestic economic policies as well as for the whole system of international relations. Different growth rates result in significant inequality of intergovernmental relations (especially in countries with large populations and territories), and international relations actors.

Second, a decrease in industrial production share is accompanied by service sector growth. However, industry remains a powerful economic growth driver both in advanced economies and emerging markets. In 2008, in order to prevent the collapse of the US economy due to the global financial crisis, the US government decided to support the national automotive industry – a definite industrial society asset. The global financial crisis escalated social contradictions, which resulted in a slight “setback” from liberal ideas. Many socialist politicians gained support from the population. Industrial giants such as China and India are today experiencing the most rapid economic growth.

Third, there is no doubt that information has become a much more valuable resource, though it has been an important asset throughout all periods of human history.

From the other point of view, modern society has new features compared to the industrial era.

First: many vital fields of economic activity and infrastructures critical to national security are fully dependent on information.

Second: cyberspace became a unique feature of modern society. This technological infrastructure is now the cornerstone of international communication, necessary for all subjects of national sovereignty and international relations.

Third: the development of cyberspace transforms the political decision making process. Keeping secrets is more difficult, everyone is forced to act openly, transparency defines the nature of interaction today. Concealment always raises suspicion.

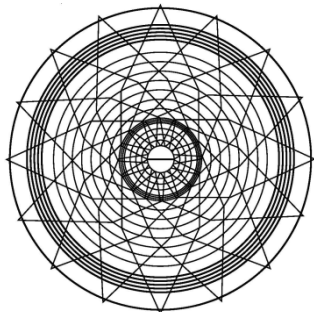
There are certain historic parallels between the influence of the industrial revolution in the 17<sup>th</sup> and 18<sup>th</sup> centuries and the current information revolution. Just like the results of the industrial revolution became a reason for titanic social shifts in all fields of human activity, modern political, economic, military, international and basically all other fields of human life are affected by the information revolution.

Information ownership as a private or common (government-controlled) property has aggravated controversies between socialist and liberal ideologies. Intellectual property regulation appeared as a specific field of law to settle disputes over information. Now information resources have become a subject of political battles. However, information’s unique features, such as inalienability, do not allow application of traditional principles to conflict with resolutions over property claims.

The experience of Western civilizations proves that application of liberal ideology in politics is more beneficial for economic development. Economic growth of Western European and Northern American countries is well ahead of all other nations. Liberal government regulation of information in the second half of the 20<sup>th</sup> century also proved to be a successful measure.

Economic development of western countries is now innovational. Long-term economic competitiveness requires an environment where there is a constant introduction of new innovations. The private sector has a key role here because that is where the major financial and technological resources are accumulated. It is worth mentioning that business development is possible only in a free-market economy. Effective public-private partnership is the cornerstone of





national economic development which allows the unification of technological and commercial resources of the private sector and authoritative powers of government.

Security issues are becoming more and more dangerous. In an information society, information security threats have a strategic importance. A threat to national sovereignty becomes a domestic and foreign policy matter. The information revolution transforms the political decision making process in the field of government management. Law-enforcement bodies are not always effective because they do not have total control over information. Information threats are asymmetric, so the approach to traditional national security threats is not applicable.

The importance of information communication in a globalized world makes information security a much broader issue than domestic and government affairs. Globalization, creation of single a market for goods and services, the possibility and feasibility of free and fast worldwide transportation, the universal communication infrastructure, all these phenomena influence the development of modern society.

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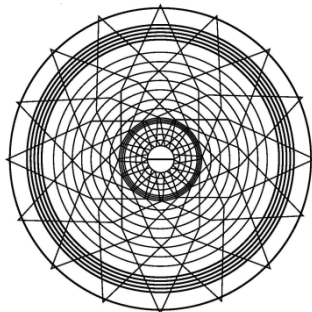
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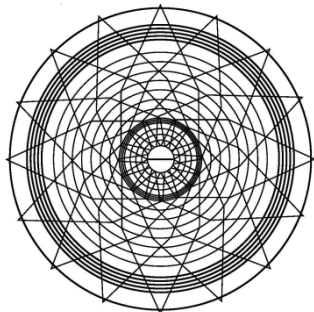
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## ИНФОРМАЦИОННОЕ ОБЩЕСТВО КАК ЛИБЕРАЛЬНЫЙ ФЕНОМЕН

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### Аннотация:

Современное поколение становится свидетелем глобальной информационной революции. Её влияние сопоставимо с последствиями промышленной революции в Европе в XVII – XVIII веках. Вместе с тем в настоящее время происходит глобальное распространение либеральной идеологии в мире. Автор статьи исследует два этих феномена и выявляет тесную взаимозависимость между ними.

В статье проанализированы некоторые тренды и тенденции, которые зародились еще в индустриальную эпоху.

Первый тренд – неравенство благосостояния в результате появления новых производственных мощностей.

Второй тренд – снижение индустриального производства, сопровождаемое ростом обслуживающего сектора.

Третий тренд – многократное повышение ценности информации как ресурса.

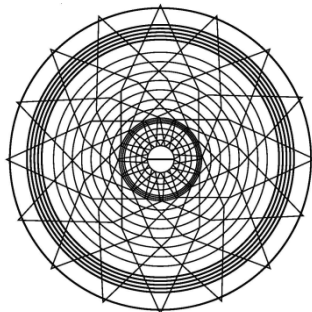
Несмотря на это, замечает автор, есть и несколько отличительных черт современного общества, в силу которых мы больше не можем говорить о том, что человечество сейчас находится в индустриальной эпохе.

Первая черта – жизненно-важные процессы экономической активности государств и национальной безопасности целиком зависят от информации. Вторая черта – киберпространство стало незаменимой и уникальной средой для коммуникации в новом обществе, в том числе коммуникации на уровне государств. Третья черта – развитие нового киберпространства начинает влиять на политические процессы, в том числе на принятие решений.

Автор заключает, что пока невозможно полностью судить о том, стало ли современное общество информационным. Однако если продолжится развитие описанных в статье тенденций, несомненно, информационная эпоха наступит достаточно скоро.

Сейчас мы видим эмбрион информационного общества, который, тем не менее, уже успел пройти долгий путь развития.

**Ключевые слова:** информационная революция, интернет, демократия, глобализация, технологии



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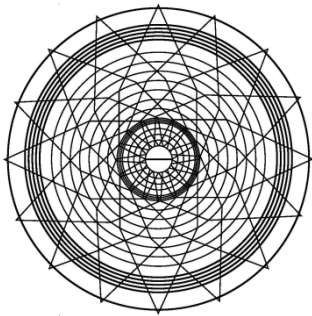
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