

FORMATION OF THE DIGITAL ECONOMY THEORY IN THE WORKS OF N. NEGROPONTE AND D. TAPSKOTT

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Abstract

The evolution of the scientific views of N. Negroponte and D. Tapscott regarding the conceptual foundations of digital economy development is revealed in the paper. The concept of “digital being”, based on the release and sale of a personalized digital product in the form of bits of information, is analyzed. It is determined that for the effective development of the digital world it is important to assure the development of the following components: the means of creating and distributing a digital product; devices for receiving and processing content; network bandwidth for content transmission; easy and intuitive interface of devices for digital product consumption. It is analyzed the Don Tapscott theory of the “new economy” as a “network intelligence phenomenon”, which develops as a result of the convergence of three traditional sectors: communications, computer technology and content. It is justified that an integral part of the “new economy” in the era of “network intelligence” is the process of creation and use of “digital capital” as a result of the interaction of human, consumer and structural capital of the company. The basis for the formation of the digital economy is business webs (b-webs), which act as the heirs of industrial corporations and are represented by a system of suppliers, distributors, intermediaries, infrastructure providers and customers which use the Internet for their core business communications and transactions.

The paper describes the main types of b-web companies. Among them are Agora, Aggregator, Value Chain, Alliance, Distribution Network. The emphasis is on the growth of a new generation of “digital people” who use the Internet not only as a way of communication, but also as an opportunity to create digital business using new business models. The theory of the formation of “Wikinomics” is also analyzed, as the idea of self-organized mass collaboration of people in order to unite efforts to create new dynamic products and services. It is determined that “Wikinomics” is based on four basic principles: openness, peering; granting for access, global character of activity. It is noted that mass collaboration is the basis for the emergence of “platforms for participation”, which arise with the development of prosumerism as a social movement to transform digital resource products and services into a common space for innovation. The logical result of the development of “Wikinomics” is the emergence of open Internet platforms, which will become a place to create innovations, values and new areas of business for a wide number of partners.

Keywords: digital economy, new economy, digitalization, business networks, Wikinomics.

INTRODUCTION

The transformation of the industrial economy into an information economy under the influence of information and computer technologies and the Internet, changes in business models of companies and employment structure, led to changes in economic models in different countries of the world, which was reflected in a number of new concepts and theories. Almost simultaneously with the theories of M. Porat’s “Information economy” and M. Castels’s “Internet and Network economy”, appeared the concepts of “Electronic, Digital, and Platform economy”, based on the growing value of information networks, the Internet, and the software products.

RESEARCH RESULTS AND DISCUSSION

Supporting the idea of the importance of the development and use of computer programs in the maintenance of modern business, American programmer Nicholas Negroponte in his work “Being Digital” [4] formulated the conceptual foundations of the “Digital economy”, which is based on the idea of atoms and bits as units of measurement in information and digital economies. The researcher argued that “the best way to evaluate the benefits and consequences of being digital is to reflect the difference between bits and atoms” [4, p. 11], which is the difference between the material world and the virtual. For example, the production of print newspapers, magazines, and books is a product of the industrial and information economy, while the development and distribution of their electronic versions is a product of digital economy. The same product provides different peculiarities of expenses for its creation, advertising and sales, which demand the changes of approaches for the interaction with consumers, contractors, and state authorities based on active use of digital technologies and networks.

Developing his concept of “digital being” N. Negroponte emphasizes that modern society is entering a post-information era [4, p. 163-164]. According to the scientist, the main difference is in the priority of the release of a tangible product (represented as atoms) both in the period of industrial society with its mass production and standardization, and post-industrial (information) society with savings due to computerization. Instead, in the post-information society, the much more development get a personalized digital product, in form of bits of information.

The main advantage of a post-information society is the ability to quickly transmit a digital product via the Internet, which, according to the researcher, is an “information line for the global movement of weightless bits at the speed of light” [4, p. 12]. The bit has no color, size or weight. This is the smallest atomic element in the DNA of information – a combination of numbers 1 or 0 [4, p. 14]. The development of binary code became the basis for the “digitization” of various information products, such as videos, photos, books, articles, which significantly influenced the development of these industries. For example, a song on a CD is compressed 44.1K times per second in code form. To display gray in black and white, the digital camera records its level using 256 combinations of 8 bit encoding, where 0 is black and 255 is white. Printing books or magazines does not require as much cost for their production and delivery to the consumer, their circulation is unlimited, they become available since their appearance on the Internet for consumers from all over the world.

Digitizing of information leads to two fundamental consequences:

- the information provided by the binary code can be easily merged, mixed and reused indefinitely;
- digital information processing results in a new information that can be used to analyze and develop a new digital product.

For example, when listening to music or watching a video on the Internet, the consumer sees only the names of the media products, instead, his computer reads hidden information, so-called “tags”, such as keywords in a scientific article. This allows the digital service provider to get to know their customer better, to offer them

personalized content and to develop new services, such as on-demand videos or personalized newsletters according to the client's interests.

However, for the effective development of the digital world, it is important to develop the following components:

- digital product creation and distribution facilities (use of powerful computers and special software by digital service providers);

- devices for receiving and processing content (personal gadgets and devices owned by individuals and legal entities);

- network bandwidth for content transmission (using different approaches, such as telephone cable, fiber optic, mobile or satellite communications allows to transfer data with different speeds and volumes. It forms the consumer's perception of the digital product);

- easy and intuitive interface for digital product consumption devices (computers and first programs appeared in the early 60's, at the same time, only in the 90's with the development of Windows and other intuitive software, computers began to be used not only as a working tool, but also as a device for entertainment, reading newspapers, books, watching movies, and playing games) [4, p. 89].

Thinking critically about the processes of digitalization of public life, in 1996, Canadian economist-theorist Don Tapscott in his study "Digital Economy: Promise and Peril in the Age of Networked Intelligence" [8] for the first time emphasized the existence of a "New economy" as a "network intelligence phenomenon" that evolves as a result of the convergence of three traditional sectors: communications (telephony, cable, satellite, wireless), computer technology (computers, software) and content (publishing, entertainment, information services).

At the heart of D. Tapscott's study is the essence of the "new economy". According to the scientist, it is characterized by such components [8, p. 12-68]:

- Knowledge. A "new economy" is a knowledge economy. Creativity together with a high level of education, form the human capital that is a key resource in the development of a new economy.

- Digitization. A "new Economy" is a digital economy which main resource is the knowledge that is being created, stored and transformed digitally through the widespread use of digital devices.

- Virtualization. A "new economy" is a virtual assets economy that requires appropriate changes in government and social institutions, as well as the nature of economic relations.

- Molecularization. A "new economy" replaces the classic heavy structure organizations with new light business models allowing free work schedule and remote work capabilities.

- Integration / Internetworking. The development of the Internet and networking technologies helps to promote individual entrepreneurship by reducing the cost of finding suppliers and clients.

- Disintermediation. Digitization of information and free access to it on the Internet significantly reduce the need for classic intermediary services.

– Convergence. A “new economy” is an economy formed by the convergence of computing, communications and content. Together, they create an interactive multimedia product that is the basis for platform business foundation.

– Innovations. At the heart of developing a new economy is a steady stream of digital innovations, so the main task is to create an environment that encourages and rewards innovation.

– Prosumption. In contrast to the industrial economy with its mass standardized production, the main trend of the “new economy” is the emergence of prosumerism (prosumer, from professional or producer + consumer “professional consumer” or “producer-consumer”, this term was firstly used by E. Toffler in the book “The Third Wave” [2]) is a social phenomenon that involves the unification of production and consumption of a customized (personalized) digital product by one person. With the development of the Internet, every consumer is a digital product maker. For example, YouTube users, social network users or blogging platforms users share their content for other people while consuming their content. An online Ebay marketplace users advertise products for sale online and buys other products online.

– Immediacy. In the era of “network intelligence”, the awareness of customers about the products and services of different manufacturers is growing significantly. Due to the feedback and evaluation system, consumers understand the advantages and disadvantages of goods, and therefore require exceptional service (overload of choices – the problem of “too much choice” by E. Toffler [3]). Thus, success in the new economy is achieved by companies that have a shorter time between ordering the product, creating and delivering it. This can only be achieved through the digital information technology.

– Globalization. The development of digital and network technologies made it easier for both consumers and manufacturers to access different markets. There is only one global economy in the digital economy, even if companies are legally operating in different countries.

– Discordance. A “new economy” companies that have access to and actively use digital technologies will gain significant market benefits, which can impair the financial standing of non-digital companies.

An integral part of the “new economy” in the era of “network intelligence” is the process of creating and using “digital capital” as a result of the interaction of human, consumer and structural capital of the company [9, p. 5]. Conceptual foundations for the formation of “digital capital” were made by D. Tapscott, co-authored with D. Lowy and D. Ticoll in a monographic study entitled “Digital Capital: Harnessing the Power of Business Webs” [9].

Scientists describe human capital as the sum of the capabilities, knowledge, skills, intelligence, creativity of the company’s employees in the context of their ability to create value for clients. The key difference between the human capital in the digital economy is the realization of its capabilities in the network, which, according to the growing demand of companies for creating new products and services, will facilitate growing involvement of independent contractors (networked e-lancers) and loyal customers to the process of product creation.

“Customer capital is the wealth contained in an organization’s relations with its customers and its suppliers” [9, p. 27]. It involves having own brand of the company, customer accounts, their trust and positive feedback, vendor agreements, the willingness of the company to share plans with its major stakeholders. The difference between consumer capital in the digital economy is the replacement of the brand concept as a one-sided image of the company by dynamic bilateral relations with the customer, based on the analysis of online feedback, the consideration of offers and wishes in the dialogue with the user communities.

Structural capital consists of codified knowledge and core business processes that enable a company to meet market requirements. The main task is to develop effective methods and tools of human capital management for the growth of consumer capital, taking into account the dynamics of changes in their needs and preferences, as well as the development of new business models of companies functioning in the era of networks.

Scientists believe that the basis for the formation of the digital economy of the new economy are "business webs", abbreviated b-webs), which act as the heirs of corporations of the industrial era and are represented by “a clear system of suppliers, distributors, intermediaries, infrastructure suppliers and customers who use the Internet for their basic business communications and transactions” [9, p. 17]. Using a networked business structures allows companies to access human resources without owning them, launching a wide product line while at the same time lacking production capacity, capitalize company’s and market value, without having equivalent assets on their balance sheets. Investing much less in physical capital (stores, warehouses, inventory), b-web companies have lower fixed costs, which allows them to earn higher returns on invested capital. And the cost of attracting a new customer is much lower than that for “classic companies” (for example, to attract 10 thousand new customers to the Wal-Mart network, you need to open a new store, instead, for Amazon it takes only 2 new servers). This contributes to the exponential growth of network companies’ income with a linear increase in expenditures.

Instead, b-web business customers are more demanding about service, range, speed and quality of service, due to the ease of replacing the seller with only mouse click on the Internet. Digital technologies increase consumer expectations that suppliers’ offerings will meet their unique needs and tastes. This, of course, creates competition between digital companies and promotes the development of “business networks” as a form of business.

It is identified the following basic characteristics of effective and competitive business networks [9, p. 18]:

- developed Internet infrastructure (participants of the “business network” capitalize the benefits from lower costs, using the Internet as a source of communication between departments, suppliers, customers, intermediaries);
- creating value innovative propositions (“business networks” offer a unique, new value proposition that makes the old way of behaving obsolete);
- entrepreneurial opportunities (the “business network” manages the contributions of many participating companies. The network leaders rely on partners to maximize their return on invested capital);

– five types of “business network” participants (clients who create “business network” value; context provider in the form of an electronic service provider; content providers who develop and create product information; service providers providing operational, financial and information management, network security, logistics and delivery; infrastructure providers providing network communications, maintaining electronic and physical records, servicing buildings, offices, etc.);

– “coopetition” (members of the b-web community collaborate and compete with one another);

– customer focus (analyzing customer data, business networking companies build personalized relationships with customers, offering customized products);

– domination of the context (the leader of a business network is its context provider, who manages the principles of customer relations, develops a development strategy and receives the highest share of rewards);

– rules and standards (the main participants of the “business network” know and adhere to the rules of interaction, standards of quality of customer service);

– bathed in knowledge (business network members exchange customer engagement data to promote new products).

Key aspects for the classification of “business networks” are the degree of economic control (self-organized or hierarchical) and the integration of values (low or high) in the network.

Some b-web companies are hierarchical. They are characterized by the presence of a leading company that controls the content of the product or service, pricing, and operations flow. For example, automakers operate an integrated supply chain of partner companies. Retailers like Amazon.com and Wal-Mart also function hierarchically, taking responsibility for product selection, pricing, and customer satisfaction.

In contrast to the hierarchical type, there are self-organized “business networks” that co-operate around an open-access network platform. For example, eBay is an online auction of products and services that sell thousands of individuals and businesses, the value of which is determined by the demand and supply on the platform.

Focusing on value integration, some b-web companies create new products or services by integrating other companies’ contributions. For example, Dell, one of the world’s largest computer manufacturers, uses components manufactured by IBM, Cisco, Nvidia, and others. They define value as the benefit a user receives from a product or service. IBM achieves high integration by taking contributions from many vendors and converting them into a computer. Examples of b-web companies with low value integration are aggregator companies that offer a wide range of products or services to consumers, with their description, classification and support. For example, Alibaba is a company that is a platform that offers proposals of entrepreneurs from China. The same example is Prom.ua in Ukraine.

It should be noted that the level of economic control and integration of values became the basis for determining D. Tapscott, A. Lovie and D. Ticoll the main types

of “b-web” companies: “Agora”, “Aggregator”, “Value chain”, “Alliance” , “Distributive Network” [9, p. 30].

Scientists used the ancient Greek name “Agora” to define the type of “b-web” business, which is based on the idea of a place as a center of public and commercial relations, negotiating the purchase and sale of goods and services on the basis of determining a fair market price. The main pricing mechanism is one-on-one trading, multilateral auctions and exchanges. Ebay is a world-wide example of Agora-based digital b-web business. The advantage of this type of “business network” is the wide variety of sellers and buyers, convenience, low costs for distribution and marketing of products, a lot of information about all aspects of the transaction, participation in the auction as a form of entertainment. Agoras tend to prevail where transaction costs are lower than the range of uncertainty over the final price. Interestingly, the companies under this scheme are not resellers, they act as contextual third-party suppliers, facilitating negotiations and transactions between buyers and suppliers of a product or service, providing a mechanism for their secure interaction. Additionally, this type of business network has a significant impact on other sectors of the economy. For example, PayPal, now the leader of online payments, set up its business to make it easy to pay for eBay items. Unlike regular mail checks and payment orders, which were the norm of the day for classic financial services, PayPal offered its own electronic payment system to pay for auctions from around the world using only one PayPal client account.

“Aggregator”, as a form of organization of “business network” involves the presence of an intermediary with additional value between manufacturers of products and customers. The lead aggregator is fully responsible for the quality of the goods and services, perform market research, segmentation and market analysis, sets prices and decides on discounts and promotions. There are the following forms of aggregators: supergregators (they provide an extremely wide selection of traditional products. Examples are Amazon.com, Checkout.com); electronic resource aggregators (providing clients with a wide range of information); electronic brokers; industrial hubs; consumer portals [9, p. 92].

In the “Value Chain” as a business network type, the context provider structures and manages the b-web network to create a highly integrated offer that meets customer needs. Unlike industrial-era companies that are focused on manufacturing goods and then looking for marketing opportunities, value chain companies identify customer needs and then develop products form them. They sell not only a product or service but also a service and ongoing support that not only builds more loyal customer relationships, but also provides valuable insights into the use of the company’s products by consumers, which will then become a source for new products and services. For this, the parent company delegates material production to its partners around the world, instead concentrating on the creation of specific design and product characteristics. A prime example of this form of business organization is Cisco, which owned only 2 of the 38 networking factories in the late 1990s. The company delegated almost all sophisticated manufacturing, assembly, configuration and distribution activities to its partners. The company itself is responsible for coordinating common business processes and solving problems that arise for each

customer. Considering the fact that the clients of the company are large corporations, small and medium-sized business and even household consumers, the company needs to take into account the unique requirements of each group of consumers. To do this, Cisco must develop special projects, deliver and install special hardware and software systems, customize them and provide service.

“Alliance” is the most virtual form of b-web business that strives for high value integration without hierarchical control. “If the value chain is like a marching band, the Alliance is a jazz ensemble. The leader of the value chain, as a conductor, chooses music and manages the performance. The Alliance leader sets the direction, but each player contributes independently to the overall value experience. An orchestra member simply watches the score; jazz musician improvises with the musical style of the group” [9, p. 121]. The “Alliance’s” value proposition is cooperation for the common good. Participants form a creative community that develops innovative products, creates and shares knowledge, or just have fun together. “Alliance” as a form of “business network” is represented by open source teams that develop software solutions for the overall development of the Internet. The design architecture is modular; each participant can work on their own snippet that connects to the common product. Participants are not paid for their contributions, but they are free to share the results. Alliances, as a rule, depend on the rules and standards governing the engagement, the acceptable conduct of the participants, and the determination of value. Quite often, buyers or users play a prominent role in creating value as participants in an online forum or as designers. A striking example of this type of b-web business is the development of the MP3 music standard, Linux and Android operating systems.

Also, “Distributive networks” are an equally important type of b-web business. Acting as postal services, telephone companies and power grids in the age of the industrial economy, they provide digital information transmission in the digital economy. Distribution networks include data network operators, new logistics companies and financial institutions. They do not create a single digital product or service, but instead transfer it between customers and consumers, as well as between companies within other business networks. The basis for their operation is the speed and ease of delivery of information, goods, money or other resources from digital service providers to users.

The analysis of the components of digital capital as a key to the development of the digital economy, according to D. Tapscott, implies the creation of new types of organizations, where the use of information technology and creative work of employees will improve organizational productivity and efficiency of the organization. It was the idea of the growth of the next generation of “digital people” that D. Tapscott dedicated his next study, entitled “Growing Up Digital: The Rise of the Net Generation” [6]. In this study, the scientist hypothesized the difference between a new generation of children growing up in an era of rapid Internet development. Calling children born between 1977 and 1997 a “network” generation” (N-Gen), the researcher emphasizes on their better adaptability to the digital world. Network kids can easily use e-mail, participate in chats, conduct video blogs. They

use the internet not only as a way of communication, but also as an opportunity to create their own digital business, which business models did not exist before.

Supporting the idea of D. Tapscott and analyzing the behavior of contemporary students, American education expert Marc Prensky proposed to use the term “digital natives” to refer children of the 1990s as representatives of digital society where official is digital language of computers, video games, mobile phones and the Internet. M. Prensky emphasizes that “today’s students think and process information fundamentally differently than their predecessors ... they have a different kind of experience [ed. digital], which leads to another brain structure and thought processes” [5, p. 1]. They are accustomed to quickly get the information they need, enjoy parallel processes and multitasking, prefer graphic images as opposed to plain text, and feel easily online when working with hypertext. They feel the need for instant gratification and frequent reward. They prefer the game forms of work, making appropriate requirements for the organization of their jobs.

A generation that came into being in the early 1980s, Marc Prensky proposed to define as “digital immigrants”. Despite the efforts in adopting digital technologies, people of this generation are characterized by a digital “accent” as a kind of “echo of the past”, an attempt to combine digital capabilities with the habits of the analogue period (for example, confirming receipt of an email by phone, editing pre-printed text instead of typing on a computer, reading the instructions before using the electronic device or a new program that are intuitively understandable for “digital natives”).

In support of hypothesis about the existence of the “network generation”, in 2008 D. Tapscott published a new book, entitled “Grown Up Digital. How the Net Generation is Changing the World” [7]. Analyzing ten years of growth experience of “network generation”, the researcher noted that “for the first time in history, children are more capable, knowledgeable and literate than their parents by using digital innovations as a center of social life” [7, p. 2]. With an internal awareness of the capabilities of digital technology, young people of this generation are transforming all the institutions of modern life [7, p. 10]:

- as employees and managers, they foster collaborative work, breaking down tough hierarchies and forcing organizations to rethink how they recruit, compensate, develop, and control employees. The very idea of managing from a corporate approach to a startup approach changed;

- as workers, they need less of a paycheck than a sense of satisfaction from work, involvement in creating a product or service that changes the world. The advantage is the free work schedule and the possibility of having remote work [7, p. 150];

- as businessmen, they have access to a global consumer market on a par with large corporations. Even by offering a fairly niche product with little demand in a small town, thanks to social networks and online shopping sites, young people have the opportunity to build a successful small or medium-sized business.

- as consumers, they want to be “prosumer” - work with manufacturers to create innovative personalized products and services, transforming value concepts and branding. Representatives of the “network generation” make purchases whenever they want, relying not so much on advertising and brand of the company, but on the

feedback of like-minded people on social networks and the Internet (N-Fluence networks) [7, p. 187];

- as students, they require changes in pedagogical models that focus on the needs of students to develop not so much knowledge as the ability to adapt, communicate and collaborate;

- as family members, they change the relationship between parents and children, because children are often more experts in new technologies;

- as citizens, they require digital transformation, principles and approaches to public service delivery. Comparing the effectiveness of government with the services of Internet companies, the “network generation” appreciates the openness and accessibility of data on the state of public finances, available social programs and opportunities for people.

- as members of society, they are less politicized than their parents, at the same time, through the use of video services such as Youtube, or social networks, it allows every citizen to receive and disseminate information that is almost impossible to control by government agencies, which contributes generally to the development of democracy and civil society.

Noting the profound changes in the technologies that have led to the emergence of the digital economy, the emergence and development of “network businesses”, and the growth of a new generation of people for whom the use of the Internet is a natural environment, Don Tapscott, along with Anthony Williams, put forward the theory of a new type of economics, which they called “Wikinomics” [1]. At the heart of this economy is the idea of self-organized, peer-to-peer mass collaboration in order to unite efforts for creation of new dynamic products and services. “Wikinomics” is based on four basic principles [1, p. 176]:

- openness (with the development of the Internet it became easier for companies to communicate with their clients and partners sharing information about themselves, their mission, values, development strategies, which provide opportunities to attract their clients’ ideas and services for their own development);

- peering (a new form of horizontal business organization that involves the cooperation of different associations of people on equal terms);

- granting access (companies treating intellectual property as a mutual fund partially relinquish their intellectual property rights in favor of supporting open-ended research associations to share ideas for the development of a new technology or approach. For example, since 1999, more than ten pharmaceutical companies have renounced from their own projects in the field of human genome research and supported the creation of an open association SNP Consortium [1, p. 144]. Companies invest in the development of a whole industry that ultimately contribute to the development of all companies.

- globalization (most companies are multinationals rather than global ones. They have a federated structure with duplication of geographical features. At the same time, in the digital economy, companies incorporate regional features and strengths into the companies’ structure, building integrated ecosystems that bring together hundreds or thousands of partner firms).

Web 2.0, or the “New Network”, according to scientists view, brings together “network generation” people for whom the Internet is no longer a library of knowledge and resources, a repository of information or a shopping directory. They perceive it as a kind of glue that connects their social networks. MySpace, Facebook, Flickr, Instagram, Youtube are not just websites, they serve as dynamic online communities, which is a convenient tool for realizing people’s propensity for expression, communication and entrepreneurship [1, p. 45-46]. Along with globalization and increasing competition, social networks are changing the culture of consuming goods and services (text and video reviews on the product or service that carry the emotional component of their owner become the mainstream), information sharing (any news is covered and commented on by a wide range of people , directly during the event), doing business (assuming openness and constant communication with customers). As a result of the spread of mass collaboration ideas that have encompassed the culture and business processes of companies, changes have been made in the organization of employees, whose workplace is becoming a “self-organized mini-enterprise” with decentralized forms of control and management.

The development of the Web 2.0 has revealed and harnessed the potential for innovation in thousands of people who were not full-time employees of companies. The emergence of online auctioneers of ideas – global marketplaces, dubbed “Ideagoras”, such as InnoCentive, Nine-Sigma, InnovationXchange Network, Eureka Medical, YourEncore, Innovation Relay Centers, allowed people with specific skills or knowledge to offer their services of non-standard, faster and more effective solutions for different problems of companies for a fee. This form of collaboration has proven to be very beneficial for companies that have gained access to unique freelance ideas, as well as performers who earn extra money without changing their primary place of work. It is interesting that not only individuals, but also large companies can be suppliers of ideas in “Ideagoras”. For example, IBM shares some of its intellectual assets with partners and competitors.

Mass collaboration has become the basis for the emergence of “platforms for participation”, which have become widespread with the development of prosumerism, a social movement of transformation the digital resource products and services into a shared space for innovation. For example, the Wikipedia, an online encyclopedia with more than 920,000 articles in Ukrainian language and over 5.9 million articles in English [10] was created by the efforts of volunteers. It became the largest and most accessible collection of knowledge in the history of humanity.

The logical result of the “Wikinomics” development is the emergence of open Internet platforms, which have become a place for creating innovations, values and new areas of business for a wide number of partners. For example, the Google Maps, an online mapping service, that rely on the pro-loyal customer network, has become the basis for developing such online services as CheapGas, a service that shows the location of the cheapest gas stations, or the HousingMaps project, that shows houses and rental prices on the map. Amazon and Aliexpress have their own affiliate program, which for a fee, provides a payment and distribution network, placing products and services on their platforms. Similarly, SAP, the world leader in software

market, accessed its leading software platforms and contributed over half a million programs to software development freelance developers.

CONCLUSION

Thus, the concepts of “digital being” by N. Negroponte and “New Economy” by D. Tapscott laid the conceptual basic development of the digital economy theory as a phenomenon of the information society evolution and the development of the spheres of communication, computing and related content software. The main business model of the digital economy is the so-called “business network” or b-web, which is represented by a system of suppliers, distributors, intermediaries, infrastructure providers, and customers who use the Internet for their core business communications and transactions. The basis for the development of the digital economy is the emergence of a new generation of “digital people” who use the Internet not only as a way of communication, but also as an opportunity to create their own digital business, which is the basis of new business models. The organic step in the evolution of the digital economy is the formation of “Wikinomics” as an idea of peer-to-peer self-organized mass collaboration platforms on a global scale that bring together new dynamic products and services.

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