Use of open data in Ukraine: some important aspects
Uso de datos abiertos en Ucrania: algunos aspectos importantes

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Abstract
The article explores the open data phenomenon, data-driven analytics and special attention is given to the media industry where they act as raw materials for creating text, image or video content. The aim of scientific intelligence is to identify the principle of working with data in the public domain in Ukraine. Direct opportunities for analytics, access to public information are considered, classification features of data are revealed, social indicators are singled out and interpreted for society. The methodological base was the methods group. There were a method of scientific research for to study the theoretical parameters of the problem in the scientific literature, sociological survey method, the factual method, a classification method for formalized description of information and a survey was implemented. The open data mechanisms, which catalyse social transparency, were disclosed through the possibility of free-of-charge verification of future business partners and companies (the presence of lawsuits, analysis of participation in state tenders, tax arrears, etc.). It is emphasized that the possibilities of using services based on open data imposes a stamp on the civil society development in Ukraine. Because of this, the social aspect of the influence of various projects on the formation of socially active and young people's consciousness develops, who forms the system of public control over the activity of state bodies.
Keywords: Big Data, Open Data, Content, Communication, Information, Data Analytics.

Resumen
El artículo explora el fenómeno de los datos abiertos, el análisis basado en datos y se presta especial atención a la industria de los medios, donde actúan como materia prima para crear contenido de texto, imagen o video. El objetivo de la inteligencia científica es identificar el principio de trabajar con datos de dominio público en Ucrania. Se consideran oportunidades directas para el análisis, se considera el acceso a la información pública, se revelan las características de clasificación de los datos, se destacan e interpretan los indicadores sociales para la sociedad. La base metodológica fue el grupo de métodos. Se implementó un método de investigación científica para estudiar los parámetros teóricos del problema en la literatura científica, el método de encuesta sociológica, el método factual, un método de clasificación para la descripción formalizada de la información y una encuesta.
Los mecanismos de datos abiertos, que catalizan la transparencia social, se dieron a conocer mediante la posibilidad de verificación gratuita de futuros socios comerciales y empresas (presencia de juicios, análisis de participación en licitaciones estatales, atrasos tributarios, etc.). Se enfatiza que las posibilidades de utilizar servicios basados en datos abiertos imponen un sello en el desarrollo de la sociedad civil en Ucrania. Debido a esto, se desarrolla el aspecto social de la influencia de diversos proyectos en la formación de la conciencia socialmente activa y de los jóvenes, quienes conforman el sistema de control público sobre la actividad de los órganos estatales.
Palabras clave: Big Data, Open Data, Contenidos, Comunicación, Información, Data Analytics.

Introduction

The "data" concept is ambiguous. It is about data-driven analytics in a particular industry, content marketing, the detection of potentially viral materials and additional promotion. In the media sector data serves as raw material for textual, graphic or video content, and becomes the evidence base for investigative journalism.

It is very important today to understand that the parameter of data openness and accessibility is a fundamental vector for the existence of a modern information society. Open data, in this vein, should be studied from the standpoint of exclusively public information, to which government authorities have provided online access to anyone who wishes. That is, the basic aspect is free access.

Alternatively, such data can be found on the websites of ministries, various departments, state bodies of the region, cities, state registers, and platforms that have been created by activists and journalists.

There are enough resources in Ukraine: Open Banking Lab. (created by OTP Bank corporation together with Open Data Incubator). YouScore is a scoring system, the user of which has the ability to analyze various open data registries. Information portal ProZorro, where government purchases in Ukraine are recorded; DoZorro platform on which suppliers can protect their rights that have been violated, while appealing the situation and many others.

The aim of the article is to identify working principles with data in the public domain in Ukraine. Opportunities for analytics, access to public information, disclosure of classification features of data, isolation of socially relevant indicators and their interpretation for society has been investigated.

Data are figures, specific parameters, facts, concepts or instructions, provided in a form accepted for understanding, processing and interpretation. It is the tool for news making. The vast majority of the world's scientific community is talking about this. Among them:

Orlowskiy C (2020), Gowtham Aashirwad Kumar and Dr A Ravikumar (2020), Nathiya T. and Suseendran G. (2018), Gurin J. (2014), Bathla R. K., Suseendran G. and Shallu (2020), Nadiammai G. V. and Hemalatha M. (2014),Kumar U. (2017), Subhashini G., Neelambary V. (2018), Tague P., Li M. Y. and Poovendran R. (2015).

Clearly organized data is fast-paced, objective, and expressive and can be done with the content of a task. Structured data is understandable even to a person who does not know the language, because numbers, patterns, images, symbols are a universal sign system. Systematic data is easier to translate into languages other than text, and it stores links between objects. Data can be either static (report, encyclopedia, dictionary) or interactive, grouped on different grounds, with cross-references.

Content information is classified into:
• general political, historical, biographical encyclopedias, dictionaries (official and folk, such as Wikipedia);
• structured by topic in directories (sites, products, prices, movies, companies, recipes, etc.) both simple and complex;
• quantitative indicators (reports, statistics, estimates, forecasts);
• geolocal data (territories, routes, weather, traffic jams, real estate prices);
• User activity data (ratings, popularity ratings).

Structured data converts information to a system. The journalist, starting to collect information, understands that the same objects must be characterized in the same way. Based on the original data, new ones are created according to the way they are organized. For example, making connections between MPs and migrating from one party to another gives an idea of a person's moral qualities.

Journalistic story is born from data. They are not valuable in themselves, the main thing is to properly filter, analyze and submit them to the recipient. Fast and superficial work with data leads to false results, unreliable information. The result of data processing is interesting and useful content for the reader (2017). The data analysis process involves the following steps:

• what questions data should answer;
• data search and filtering;
• data exploration as searching for relationships and building distribution;
• formulation of conclusions, trends, forecasts, visualizations;
• communication as journalistic material: article, blog, visualization, application

The schematic work on the data can be represented as follows (Fig. 1).
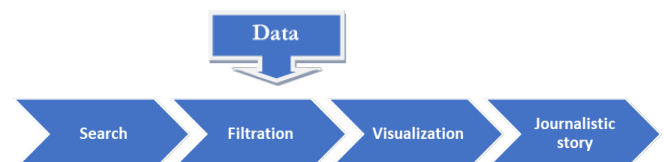
Figure 1. Scheme of work with data

Data search stage divided into four types:
- public data - data defined by the Law as available upon special request;
- open data - data in open access;
- metadata - data about data;
- big data - a method of processing and recording data of large volume.

Open data is one of the priority and innovative areas of activity in Ukraine, which determines the novelty and relevance of the project. Ukraine officially joined the International Open Data Charter, according to which the publication of public open data should take place in 2016. The legislative basis for the development of open data in Ukraine consist of the Law of Ukraine "On Access to Public Information" and the Decree of the Cabinet of Ministers of Ukraine "On Approval of the Regulations on Datasets to be Disclosed in the Form of Open Data". The site of the Unified State Open Data Web Portal contains a map of open data development in Ukraine, which contains points about promoting the importance of open data through media publications, development of user skills through distance courses and educational programs, open data training, stimulation of innovations and projects based on Open Data and Promote Social and Socially Important Community Projects Based on Open Data, Engaging Local Innovation Platforms for Promotion and Development their data. The availability of government plans to disseminate information on open data indicates by currently insufficient coverage of open data in Ukraine. The need for the development of the open data industry determines the need for institutionalization of communication activities, confirms the relevance and innovativeness of the open data education project, as well as indicates the state's interest in communication projects on open data.

Methodological framework

The method of method of scientific research for to study the theoretical parameters of the problem in the scientific literature was used in the article in oder to study the validity and problematic way of using open data based on existing observations and current scientific work. It is worth noting here the theoretical and methodological aspect of the study of the question posed, found in the works written by Kubicek H . J. Kubicek, Herbert; Ditches, Juliane, V. Shevchenko, C. Graf. D. Mellor, C.Orlovskiy, V. Kotu Bala Deshpande, D.Gayathri, T. Krishna Kumar, S. Sasipriya, T. Nathiya, G. Suseendran, Jing Y. Bi, H. Deng, Joel Gurin, G. V. Nadiammai, M. Hemalatha, A. Nakamura, T. Kudo, K. Nishioka, G. Subhashini, V. Neelambary ant others

We have also used the factual method as one of the varieties of journalistic argumentation that determines the real manifestations and tendencies of the objective validity of the use of open data. In order to study this question in depth, a classification method was implemented to formally describe information about the of way using open data by Ukrainians, the level of general understanding of the open data phenomenon.

We aslo used a sociological survey method for learning implicit skills in students and young journalists with open data work. This is the method that showed that despite the development of open data methods in Ukraine, the level of skills is still quite low. This emphasizes the need for a theoretical and practical vector of amazement of this problem.

The legal framework for the use of open data is regulated by the Decree No. 835 "On Approval of the Regulation on Datasets to be Disclosed in the Form of Open Data", the 21th of October in 2015, Law of Ukraine "On Access to Public Information" (Verkhovna Rada of Ukraine (BB), 2011, No. 32, Art. 314).

According to the Law of Ukraine "On Access to Public Information", public information is displayed and documented by any means and on any media information obtained or created in the course of execution by the authorities. There are the powers of their duties, under the current legislation or in the possession of the subjects of power, other managers of public information. Open data is allowed for further free use and distribution. Anyone may freely copy, publish, distribute, use, in particular for commercial purposes, in conjunction with other information or by including in the composition of their own product open data, with a mandatory link to the source of its receipt. However, a prerequisite for any further use of the open data is a link to the source of the information (including a hyperlink to the open data web site of the information manager). "The regulation defines the term "data set" as an electronic document that contains open data and consists of a structured set of homogeneous values (records), including data fields and meta information about them (Shchelokov, 2018).
Public information in a format that allows its automated processing by electronic means, free and free access to it, as well as its further use.

Kubicek, Herbert; Jarke, Juliane, german scientists detail the specifics of open data in Germany, based on the international openness criteria announced at the 2007 conference in the US organized by the Sunlight Foundation and O'Reilly Media: completeness, source, timeliness, accessibility, machine readability, non-discrimination, lack of exclusive control, free of charge, continuity (Kubicek & Jarke, 2020).

Very interesting description of open data as notion was geven in the article «Paving the way to open data» by Y. Wu, E. Moylan, H. Inman and C. Graf. They mentioned «…given the scale and variety of data, the complexity of how best to share data, the need for new practices and habits by research communities, and the need for technology and infrastructure to support data sharing, it is clear that collaboration across all stakeholders is key» (Wu et al., 2019).

M. Hahnel in the article «Global funders who require data archiving as a condition of grants» mentioned «Open access and open data are becoming more prominent on the global research agenda. Funders are increasingly requiring grantees to deposit their raw research data in appropriate public archives or stores in order to facilitate the validation of results and further work by other researchers» (Hahnel, 2015).

Orlowskiy C outlines the multifaceted nature of the worldwide open data problem, noting the following: «One topic of great interest across academia is the evolution of researcher perceptions of open access publishing and data sharing. In September, this was the focus of the latest in Wiley's annual surveys of the research community…. Despite geographical and subject-level differences among authors, there are underlying commonalities in open science practices. The insights reported by our respondents show a willingness to move forward with open initiatives, but confusion around the best ways to do so» (Orlowski, 2020).

In order to find out the level of dissemination of open data in Ukraine and the way of using it, we conducted a survey of students of Taras Shevchenko Kyiv National University and National University of Kyiv-Mohyla Academy on awareness of open data. Total number of respondents was 458 persons. Among them were 220 girls and 238 boys. Age of students from 18 to 32 years. Also, 67 Ukrainian media journalists were interviewed regarding their use in open source professional activities.

The results of the student survey can be displayed in the table, which will help to demonstrate the questionnaire and the result

Table 1. Survey of Ukrainian youth regarding work with open data

№	Question	Answers %		
		Yes	**No**	**Not sure**
1	Do you know what open data is?	79	8	13
2	Are you familiar with the specifics of working with open data?	63	29	8
3	Do you consider it necessary today for a jounalist to be able to work with open data?	65	27	8
4	Does modern society need open data?	70	21	9
5	Do you find working with open data difficult for a journalist?	61	29	10

As can be seen from the survey, Ukrainian youth are not very versed in working with open data, which makes it possible for further theoretical and practical research, developments in educational institutions, conducting educational trainings, programs that will teach society to work correctly in this area. Some of the respondents (most of them are students) do not understand what the specifics of working with open data are, what aspects should be studied and worked on. Quite a large percentage consider it hard work, which means that they do not seek to delve into the essence of the specifics. But also, 27% of respondents consider this region to be quite promising and necessary for the development of soum in the future (Kotu & Deshpande, 2018).

Open data helps businesses openly conduct business, analyze other businesses, identify reliable partners, and investigate journalists in Ukraine. Public authorities are in control and the quality of their work is increasing. But, unfortunately, public awareness of the open data is quite low.
USAID / UK aid Transparency and Accountability in Government and Services financially supports citizens of Ukraine and the Ukrainian government in their fight against corruption in key government services and services, fosters Ukrainians' confidence in the government based on demonstrated transparency, accountability and improved service quality (Denis et al., 2020; Nathiya, 2017). This support aims to implement visible and successful public administration reforms

and services to eradicate corruption in key areas, such as e-procurement, open data and e-services. TAPA research shows that open data brought in more than $ 700 million to the country's economy in 2017. About 200 million are profits of Ukrainian companies for new products or services based on open data. About half a billion is an indirect benefit of more efficient work. In general, 3-4 thousand specialists are currently involved in open data in Ukraine. For the fourth time in 2020, the Open Data Challenge is the largest national open data competition to promote the development of services and products that will contribute to the fight against corruption and have significant public value and business potential. Among the winners of previous years, Monitor. Estate is a service that looks for and analyzes legal risks in the primary real estate market, Lviv City Helper - a chat bot of the City Council of Lviv, which quickly and easily gives access to city public information in 24/7 mode »- an analytical tool for finding, researching and visualizing court decisions. Know your clerk (Zaparkanom) - a web service that provides analytical information for evaluating a clerk based on declared wealth, City-bot Nazar - municipal chat bot, which informs about the work of public utilities city fires (Denis et al., 2020).

Open data continues to grow at the same rate in Ukraine, and then by 2025 it will bring the economy up to $ 1.4 billion a year, or just less than 1% of GDP according to TAPAS estimates. The TAPAS project highlighted the top 5 most sought after sets of open data in Ukraine. It proved the most popular cars, wanted cars, court cases, corporate registry data and tax debt information.

The field of data journalism is actively developing now, especially because of open data, large visualizations are created, with the help of which trends in different spheres of life can be seen, and journalistic investigations are conducted in Ukraine. Non-governmental organizations and activists do their own research, such as human rights compliance, reconstruction of events, environmental situation in the region, or anti-corruption projects based on open data. For example, the Clarity Project (https://clarity-project.info/about) is a ProZorro public procurement database and analytics system based on open data.

Businesses are popular with data sets on the most common cars in the country (previously these data were sold illegally and now these data are officially opened, and no one benefits from this illegal gain). Based on this data, applications have appeared that monitor the most and least popular cars. Car dealers can use them to keep up-to-date and track customer tastes. There are a number of services, such as

determining the risks of buying apartments in new buildings – checks based on open data in Ukraine.

We conducted an electronic survey to determine the level of awareness of Ukrainian students about the open data. Data collection period is from October to December 2019. The sample size is 458 respondents belonging to the target group of Ukrainian youth. The age of the participants is from 18 to 32. According to the results, the level of public awareness in the field of open data is not high (fig.3). When asked, "Do you know what open data is?" 47% of respondents said no. There is a need to develop literacy education projects in this area.
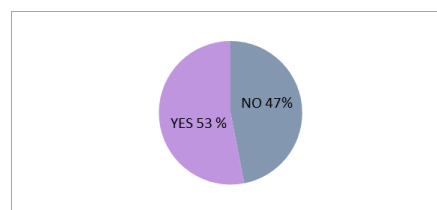
Figure 1. Respondents' level of awareness of the concept of "open data"

There are few open-source media projects in Ukraine. These include the Mind Lab Open Data Journal, the only open-source profile print edition (with online version) (Kumar & Survey, 2015), the Open Data Ukraine Telegram channel from the Open data bot team, and the Open Data Open Telegram channel from the Bridge Data Initiative The Above Telegram channels are for people who are already familiar with open data and use services to access open data. The Open Data Telegram includes content that will be interesting to more experienced open data professionals. Mind Lab articles are suitable for beginners in the open data field who already have a common understanding of open data, and for professionals. The numbers and materials of the edition are quite voluminous, therefore, the speed of reading is slower than that of Telegram channels with short posts, although reading the journal numbers allows you to get a better grasp of the topic of open data. It also supported by The Law of Ukraine "On Access to Public Information" (Mahalakshmi & Suseendran, 2016).

Open Data Education Projects are online courses: Open Electronic Registries Course, Electronic Democracy in Ukraine, TAPAS Open Data Course. Online courses take longer to learn than chatbots because they explain a lot of details and delve deeper into the topic of open data (Nadiammai & Hemalatha, 2014). Online courses are not a direct competitor of the project as they are aimed at those who are already interested in open data and want to deepen their knowledge.

To make our knowledge more deep in this area we made a questionnaire only for journalists. Here are the results.

Of the journalists surveyed, 36% had never used open data portals. Several respondents misunderstand the principles of open data, as they indicated in the form of the names of the open data services they use, Wikipedia and Facebook, which do not relate to open data. Among the open data services used by journalists in their professional activity is the service data.gov.ua (fig. 4)
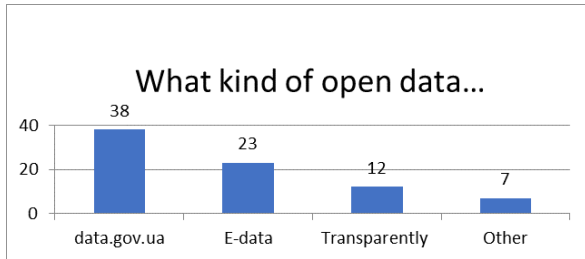

Figure 4. Use of open data services in professional activities

70% of respondents agree with the false statement "open data contains information on the state budget, personal data, information from local communities, data on private companies, etc.", which indicates an awareness of the rules of personal data security and the principles of using different types of information (Jing et al., 2016).
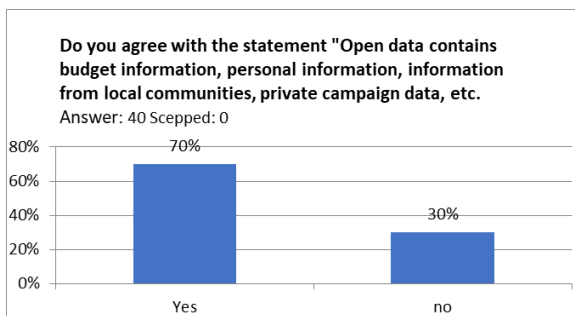

Figure 2. The level of agreement of the respondents with the false statement

80% of respondents believe that open data does not need to be paid for access to it.
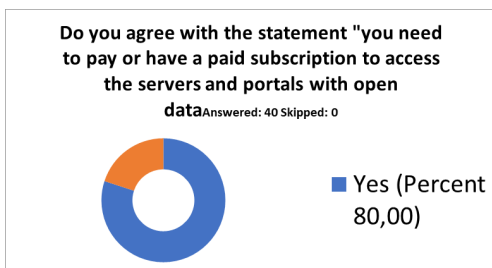

Figure 3. The level of agreement of the respondents with the false statement

False judgments about the nature of open data, access services and personal data as part of open data indicate a lack of a basic understanding of open data among young people. The results of the survey confirm the need for an interactive project to promote open data and allow the structure of Telegram-bot materials to be tailored to the needs of the project's target audience.

Open data is important for the state development, for the formation of an open society and for providing ample opportunities for innovation of Ukrainian society.

Results and discussion

The use of public data is regulated by law. It is accessed, for example, on special request. Considering that not all data is relevant, the task of the journalist is public data - all without exception information that is available from state authorities, local self-government. The conditions of use of public information are determined by the Law of Ukraine "On Access to Public Information", which aims to promote the open activity of public authorities, their accountability to society, the creation of mechanisms for the exercise of everyone's right to access to public information. The information is accessed through its publication in official print media, on official websites on the Internet, on a single state web portal of open data or on information stands. There are:

• public information with restricted access (confidential, secret, business information).
• confidential information (access to which is restricted by a natural or legal person other than those subject to power, and which may be disseminated in a manner determined by them at their request, in accordance with their terms and conditions)
• classified information (disclosure of which could be detrimental to the individual, society and the state, which contains state, professional, bank secrecy, secrecy of pre-trial investigation)
• official information (contained in the documents of the entities that make up interdepartmental correspondence, notes, recommendations, if they are related to the development of the direction of the institution's activity or the exercise of control, supervisory functions by public authorities, decision-making process and preceding public discussion and / or decision-making, as well as that collected in the course of operational search, counterintelligence, defense of a country that is not classified as state secret)
• information about the person (Gurin, 2017);
• public information in the form of open data (public information in a format that allows its

automated processing by electronic means, free and free access to it, as well as its further use).

Open data is a form in which public information is disclosed, data that is freely available for use and further reproduction without restrictions of copyrights, patents and other control mechanisms. There are international standards for open data, as each country is obliged to make public information publicly available. The quality of open data depends on system standards and solutions. Important features of open data are free and free distribution - anyone is free to copy, publish, distribute, use, including for commercial purposes. They should also be adapted for automated processing by electronic means. However, the law does not have specific requirements for formats that present open data. There are:

- databases, data portals (eg E-data) - unstructured databases and a large number of sources of information;
- services (ability to find information), for example, 007, Navizor, Agri Eye;
- information and analytical resources.

The essence of open data must be published before anyone needs it. Public information in the form of open data is permitted for its free use and dissemination. Anyone may freely copy, publish, distribute, use, including commercially, in combination with other information or by incorporating their own product, public information in the form of open data, with a mandatory link to the source of such information (Bathla et al., 2018; Nakamura et al., 2018).

Public information which contains personal data of an individual is disclosed if the personal data is impersonal and protected, or the person has consented to the dissemination of such data. The list of data sets to be disclosed in the form of open data, requirements for the format and structure of such data sets, the frequency of their updating are determined by the Cabinet of Ministers of Ukraine. At the same time, the Cabinet of Ministers of Ukraine must include in the list such information as is provided by law in the form of open data (Nakamura et al., 2018).

Creation and maintenance of a unified state web portal of open data is carried out by a central body of executive power, which implements state policy in the field of e-government. Some of the data has been collected and archived for quite some time, but due to restrictions in the electronic version, journalists did not have access to it before. With the help of specialized services, you can quickly find the information you need even a few years ago and use it in a specific study (Berezhna, 2015).

Information stewards publish information in the form of open data (posted on an official website or on the Unified State Web Portal of Open Data) and made available. the list of information to be made publicly available is provided in the Appendix to the Provisions on the datasets to be disclosed in the form of open data. The state opens register with a lot of data, but finding the right information is difficult. Therefore, services are created that mix the data and choose what the user needs on request. These data are the basis of journalistic material.
There are now 3 open source resources available:

• E-data (https://spending.gov.ua/) - the official public finance portal, the largest database (about 20 million documents);
• Transparent (https://prozorro.gov.ua/) - all about public procurement (tenders and 258952 active suppliers on 02/25/2020), data is stored in pdf format, that is, difficult to copy or find.
• State portal of open data (data.gov.ua) - 28,000 datasets as of 02/25/2020, most of which are unstructured.

E-Data portal is an official state information portal on the Internet, which publicizes information on the use of public funds and implements the idea of a transparent budget, which satisfies the public's right of access to information. The portal publishes all transactions of the State Treasury, information on the use of funds from the state and local budgets is available on the portal from 15th of September 2015. The information began to disclosed by the entities of state and communal property, in the authorized capital of which state or communal the share of shares (shares, shares) exceeds 50 percent in January. To find information, you need to click on a specific area of the map from where all money transfers transactions open.

The E-data project consists of two main modules: SPENDING - the use of public treasury funds, managerial contracts, state trust funds, state and municipal companies and Transparent Budget - this is an integrated information and analytical system that is a tool for managing public funds, includes all components of public money management, namely state and local budgets, analytics, control systems, public information sections and methodology and training sections.

Transparent - a system of electronic public and public procurement in Ukraine on the basis of a tender system with the slogan "Everyone sees everything", the copyright of which is "transferred to the people of Ukraine (state)" in accordance with the "Memorandum on the relinquishment of copyright, transfer to the state and further steps of creation pilot version of the automated electronic

public procurement information system in Ukraine. "

This system is built on the principles of open source, that is, all the information that is in the central database is broadcast to the open access. In addition, at the end of the tender, electronic information about all submitted proposals, decisions of the tender commission, qualification documents and so on appears on the electronic system (Hassan & Hassanien, 2017). There are 10 accredited commercial online procurement sites in the system: PrivatMarket, SmartTender.biz, Zakupki.prom.ua, Zakupki.com.ua, Public Procurement Online, Ukrainian Universal Exchange, E-Tender, Brizol.net, Newtend, Public Bid and APS Market. The national portal of open data Data.gov.ua publishes data of Ukrainian state bodies, grouped into 10 categories (Fig. 5).
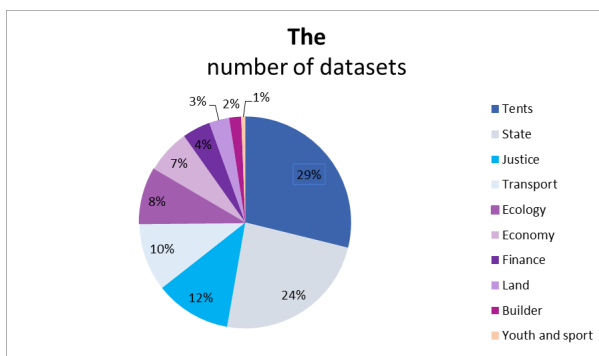

Figure 5. The number of datasets on the State Portal of open data by categories

Cloud resources for hosting and running the national portal were provided free of charge by Microsoft Ukraine.
TAPAS experts say that open data has a direct and indirect impact on the economy: it earns business creating products based on open data, and users get more efficient products and services. The attention and proactive stance of citizens in the long term can perform the functions of controlling the activity of state bodies. Knowledge in the field of open data gives Ukrainians the opportunity to check future business partners free of charge (the presence of lawsuits, analysis of participation in state tenders, tax arrears, etc.). This saves money by avoiding unscrupulous organizations or entrepreneurs. Based on open data, Ukrainian youth can create their own business projects and startups (Subhashini & Neelambary, 2018).

There is no quick fix to this problem, but it is the direction the whole world is heading, so more and more people will be able to use and analyze data to solve various issues (Markarova, 2018)." This indicates that the Open Data Promotion Project is as relevant as it can be raise awareness of open data among Ukrainian youth and encourage the use of

modern open data services. Open Data Specialist and Head of the E-data Project Team V Shchelokov in the article "Is the open data market in Ukraine" states: "The open data market gives us an interesting perspective of development: from the demand for new professions to the creation of new business models. Even today, data cannot exist by itself, it needs to be transformed into information for consumption" (Shchelokov, 2018). Open data is important for the state development, for the formation of an open society and for providing ample opportunities for innovation. The Youth Open Data Promotion Project is closely linked to these aspects as it aims to have a positive impact on youth involvement in the use of open data.

Conclusions

Knowledge in the field of open data gives Ukrainians the opportunity to check free of charge future business partners and companies (availability of lawsuits, analysis of participation in state tenders, tax arrears, etc.). This saves money by avoiding unscrupulous organizations or entrepreneurs (Tague et al., 2009). On the basis of open data, Ukrainian youth (students and journalists) can create their own business projects and startups, which leads to positive changes in the social sphere. The use of open data services has implications for civil society development and indifference. At the same time, the social aspect of the project's impacts is reflected in the formation of an active position of the youth, which provides an effective system of public control over the activity of state bodies.

Open data began to be published since 2015 in Ukraine. It happened after the adoption of the law of Ukraine "On Amendments to Some Laws of Ukraine on Access to Public Information in the Form of Open Data" and the Cabinet of Ministers of Ukraine public data ". They obliged public authorities to provide public information in the form of open data and to update it regularly on a single state web portal of open data in certain (defined, approved) formats.

Ukraine has databases, portals with data (eg E-data), services (eg 007, Navizor, Agri Eye), information and analytical resources (eg, ProZorro all about public procurement), registration monitoring services company data (e.g., OpenDataBot for preventing raids and control of counterparties). Knowledge in the field of open data gives Ukrainians the opportunity to check free of charge future business partners and companies (the presence of lawsuits, analysis of participation in state tenders, tax arrears, etc.).

It saves money by avoiding unscrupulous organizations or entrepreneurs. On the basis of open data, Ukrainian youth can create their own business projects and startups, which leads to positive changes in the social sphere. The use of open data services has implications for civil society development and indifference.

At the same time, the social aspect of the project's impacts is reflected in the formation of an active position of the youth, which provides an effective system of public control over the activity of state bodies (Lal et al., 2015).

The way using open data is equal to the international organizations engaged in assessing the openness of public data in Ukraine: Open data index from the Open Knowledge Foundation, 5-star Open Data and Open data barometer from the World Wide Web Foundation, Statistical Capacity Indicator from the World Bank; Opendatamonitor and Opencorporates data comparison services

The results of research and surveys have shown that the current situation of use by journalists and future journalists needs to be improved, the study detailed. Given that today's young people already use open data, learn to work with them, understand the mechanism of work - the overall statistical picture is still quite low.

This opens a new field for research, outlines a new angle for the promotion of updated training mechanisms for future journalists, the need for training for existing journalists-practitioners.

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