Digital technologies in youth career guidance management for professions of the agricultural and industrial complex of the Sverdlovsk region

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Abstract. The research is aimed at finding ways to effectively integrate traditional career guidance approaches and the capabilities of digital platforms working in the field of youth policy management in the Sverdlovsk region. The ways of intersection of interests of universities and youth policy management bodies in the emerging unified Internet space are outlined. The analysis of digital transformation process in the field of career guidance is carried out. The possibilities of the main federal information platforms in the field of youth work and their effectiveness in terms of indicators are presented: the number of events, the coverage of participants and, what is important for us– the project activities of young people with a career-oriented component. The article provides examples of social projects that already have a digital footprint and a sufficiently large involvement of schoolchildren and students of the Sverdlovsk region. The educational component containing elements of career guidance, which can be further strengthened, is of particular interest. The ways of creating a territorial multilevel digital model of youth career guidance of the Sverdlovsk region are outlined.

1. Introduction

Today, various models of building career guidance work using digital tools are possible. This topic is little developed and, accordingly, almost not implemented in practice. It can be assumed that various models are possible, differing in quantitative and qualitative parameters of the ratio of "digital" and "human" components, as well as the tasks to be solved by digitalization of career guidance process.

The existing experience of youth work of the Sverdlovsk region in digital formats includes not only the analysis of various statistical data, but also the project activities of young people with the prospect of organizing career guidance. This forces us to conduct a theoretical analysis of the state of this issue [5, 6] and the possibility of its practical implementation in the Sverdlovsk region with the participation of the Ural State Agrarian University. And to offer some solutions. The relevance of the research topic is confirmed by the fact that the lack of a scientifically based career guidance system is a factor in the development of uncertainty of the professional future of young people [2].

The study was conducted by analyzing the scientific literature on the given problem, as well as the experience of career guidance work of the Ural State Agrarian University (hereinafter Ural SAU), the Ural Federal University named after the first President of Russia B.N. Yeltsin (hereinafter UrFU) and the Department of Youth Policy of the Ministry of Education of the Sverdlovsk region.

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2. Materials and methods
The team of authors, led by Sergeev I.S. (4), believes that the process of digital transformation in various industries, including the field of career guidance, goes through a number of stages: 1) use of disparate electronic tools, resources and services; 2) emergence of platform solutions and their adaptation to solve career-oriented tasks; 3) creation and use of specialized platforms; 4) development in the context of cross-platform solutions that provide solutions to career-guidance tasks in combination with others (organizational, managerial, educational, etc.). In our opinion, we are at the fourth stage of the digital transformation of career guidance.

The creation, use and development of platform solutions in career guidance allows to tie together (based on the use of unified data) and thereby increase the efficiency of solving the entire complex of tasks related to the organization and implementation of career guidance work on the scale of the territory, industry, educational ecosystem (vocational cluster, educational network) [4]. Including:

- creation of a single constantly updated professional information space for all groups of users, providing navigation of users in an excessively saturated, poorly ordered career guidance environment;
- alignment of all career guidance programs and events (federal, regional, sub-regional, local level) based on the formation of a common calendar of events and a unified system of participant registration;
- formation of a unified framework of regulatory, software, and methodological support for career guidance work in the territory accessible to all participants; - development of network formats of career guidance work implemented with the participation of two or more organizations, enterprises, institutions and involving the distribution of functions between participants, coordination of their actions and resource sharing [1];
- development of network mechanisms of support and mentoring in career guidance, including in the form of mutual support of persons with different experiences of self-determination, as well as network mechanisms for the exchange of experience and mentoring in career guidance;
- ensuring the balance of contact and online forms of professional diagnostics, professional consulting, networking, and other forms of work (including considering the interests of residents of remote territories and special categories of self-determined persons);
- increasing the interest, activity, independence and awareness of students in the process of professional self-determination by creating opportunities for their independent formation of network career-guidance content (career-guidance projects, online contests of career-guidance videos, "memes", "motivators", etc.);
- increasing the degree of involvement in the process of career-guidance networking of all categories of participants and beneficiaries due to the availability of information, the principle of a "single window", the friendliness of user interfaces, the use of "digital assistants", as well as using tools for analyzing user activity and gamification elements;
- ensuring the openness of the course and results of the career guidance process for various categories of interested parties, primarily for the parents of students;
- concentration and increasing the volume of digital footprints of all participants in the career guidance process;
- continuous multilevel monitoring of the progress and effectiveness of career guidance work, diagnostics of results and problem areas in the process of professional self-determination of students [3, 8].

A platform approach is used in youth work of the Sverdlovsk region. We will analyze the capabilities of the main federal information platforms in the field of youth work: the automated information system "Youth of Russia" and a unified information system for the development of volunteering "DOBRO.RU".

AIS "Youth of Russia" allows registration of young people to participate in youth activities at the international, federal, inter-regional, district, regional and municipal levels in the full-time and remote format, receiving grant support of the Federal Agency on Youth Affairs and the regional Ministry for the implementation of projects in state youth policy, as well as receipt of personalized information on self-development and implementation of professional activities.
In 2021, the Sverdlovsk region achieved full coverage (73) by municipal offices in AIS "Youth of Russia" (against 10 municipal offices in 2019). In addition, the functionality of the system allows to upload statistics, the number and activity dynamics of participants of the AIS Youth system.

Specialists of the Department of Youth Projects and Programs of the Ministry of Education and Youth Policy of the Sverdlovsk region provide methodological and organizational support to young people on a daily basis to create and upload projects to the AIS "Youth of Russia" system.

For the second year, the Sverdlovsk region has been the leader in the Ural Federal District in terms of the amount of grants received from the Federal Agency for Youth Affairs. Thus, at the end of 2020, representatives of the Sverdlovsk region received support for 56 projects from the federal budget in the amount of 69 million rubles, at the end of the 1st quarter of 2021 - 22 projects in the amount of 33 million rubles.

One of the environmental projects that received funding in the Sverdlovsk region deserves special attention, as it was carried out by schoolchildren and students. The project name is creative ecological workshop "Do it!". The core of the project is a recycling workshop, in which various products are produced: volumetric souvenirs, notebooks, key rings, waist bags, interior items. A creative ecological space has been created for the joint creative work and education of schoolchildren and students: an exhibition area dedicated to the recycling of secondary raw materials, an art zone for the popularization of modern ecological fashion, a zone for thematic exhibitions of young artists, a zone for video broadcasts, as well as a zone for workshops and masterclasses. Within the project framework, creative career-guidance training sessions on the ecologist profession are held for schoolchildren, open lectures on the greening of urban spaces, an online course on creative green economy is recorded, workshops on the creation of eco-projects with university students are held. The presence of a serious educational component in the project significantly expands its capabilities, allows to manage the thematic content of career guidance.

UIS "DOBRO.RU " provides the possibility of accounting for the voluntary activities of citizens of the Russian Federation (personal volunteer e-book), monitoring information on activities in the field of volunteering, ability to search for volunteers and their involvement in the activities of public and state organizations, professional development of volunteers with obtaining appropriate certificates in electronic form. Online training of volunteers takes place in all areas of volunteer activity: the basics of volunteering, volunteering in the field of culture, medicine, event volunteering and others. According to the results of the first quarter of 2021, more than 700 volunteer organizers and 40 thousand volunteers are registered in the system in the Sverdlovsk region.

A major social project involving schoolchildren was carried out by the Ural SAU in partnership with the Sverdlovsk regional branch of the All-Russian Public Youth Organization "All-Russian Student Rescue Corps", with the support of the Autonomous Non-profit Organization "Resource Center for the Support of Volunteering in the Field of Safety Culture and Disaster Response Sverdlovsk region", and the Main Directorate of the Ministry of Emergency Situations of Russia in the Sverdlovsk region. The form of career guidance work through the joint participation of schoolchildren and students in such projects shows the social significance of joint actions, creates a community of like-minded people and helps to attract schoolchildren to the university.

The management experience with the help of other information resources is interesting, in which we can also see the possibilities of using career guidance content.

The information resource "Yandex.Forms" is used as an operational management mechanism. The use of this resource allows to reduce the formation and submission of reports on the activities carried out from 1 to 2 days. One example is the collection of information on the holding of events by volunteer organizations on the territory of municipalities dedicated to the "Day of the Emergency Medical Service Worker", on April 29, 2021, 347 events were held, in which over 15 thousand people took part. Thanks to this resource, the Ministry of Education sent a report on April 30, 2021 to the Federal Agency for Youth Affairs.

The "Youth of the Sverdlovsk region" groups have been created and are actively developing in VKontakte, Instagram and YouTube social networks. The average monthly number of unique users is
about 200 thousand people. Significantly greater coverage is achieved for individual events. This is confirmed by the example of the regional stage of the All-Russian Youth Educational Forum "Territory of Meanings" held at the end of March 2021. In 5 days of the forum, broadcasts and publications have gained more than 188 thousand views. The team of Ural SAU students took an active part in the forum.

To form a unified Internet space in the field of youth policy, the Sverdlovsk Region Youth Portal has been functioning since 2018. This resource allows "in one window mode" any young person or interested person to learn information about youth affairs bodies, state and municipal institutions, public and youth organizations and associations throughout the region, as well as career guidance material. The operator of the portal is the "House of Youth", and in terms of entering municipal information – specialists from the territories. By the end of 2020, the portal was visited by no more than 10 thousand people, but it must be recognized that the portal attendance statistics lag behind social networks.

It is equally important to preserve existing and develop new communication services with young people and industry specialists.

To date, the technology for collecting big data is the most popular in the public administration system. Thus, to optimize the workflow of specialists working with youth in municipalities, together with the Youth Government of the Sverdlovsk region, a digital information system of big data in the field of youth policy has been developed, which will provide users with statistical data for reporting, upload information on the implementation of state program and municipal programs, including career guidance content.

The system will open up wide opportunities for analytics and interpretation of implementation quality of the work carried out, support for managerial decision-making.

The information system will allow collecting data on the assessment of the implementation of the state youth policy in the territory of each municipality by 242 indicators. Based on the results of collecting reports on the implementation of 242 indicators, the information system automatically generates a rating of municipalities.

To date, the system is undergoing the final stage of preparation for testing from November 1, 2021.

The Department of Youth Policy of the Sverdlovsk region has developed a concept for the creation of a regional innovative institution for working with youth – the "Youth Creative Center" (YCC). The result of the YCC creation will be the coverage of at least 75 percent of Internet users aged 14 to 35 years living in the Sverdlovsk region with information materials, including career guidance. The YCC will ensure the transformation of existing communication channels and bring digital interaction with the youth of the region to a qualitatively different level. Thus, there will be the creation of an actual space for choosing a profession and the formation of a positive image of the region [2].

Thanks to the creation of the YCC, it is possible to talk about the possibility of developing a Digital multi-level model of career guidance management in the Sverdlovsk region. This model should include: a unified work plan of the system subjects (Department of Youth Policy - universities - employers); joint career guidance programs; a list of active employers; regular public reporting on effective indicators and criteria; the possibility of public discussion of the results and prospects for the development of career guidance; further development of the YCC digital platform and its integration with other information platforms [7].

The digital platform can consist of the following sections: an unauthorized area (information about the occupations and competencies, short trips, photo and video materials, open online courses); administrative roles (Department and school – registration of new participants, the attachment of consent to the processing of personal data, electronic document management); participant personal account (new testing interface, personal account); sites (attachment of photo and video reports).

3. Conclusions and Results
Despite the lack of funding for the development of digital technologies in youth work, in 2021, in the Sverdlovsk region, there was an increase in the number of young people - users of digital platforms by 400 thousand people; coordinated work was organized by all subjects of youth policy on the development of digital directions, the introduction of new models and new digital technologies, which
is already leading to significant results. And in the future of two or three years, improving the content of software complexes will allow to develop and make new decisions, in particular, to improve sections related to career guidance.

At the same time, it should be borne in mind that the development of functionality and the increasing importance of career-guidance platforms exacerbates the risks:

- first, the virtualization of career-guidance work, the dominance of digital formats over contact ones;
- second, restrictions on the content, forms and means of career-guidance work within the framework of the created platform (the formation of the myth "career guidance is what is in the menu of our portal");
- third, manipulation of the behavior of platform users in the interests of certain individuals, social groups or institutions [4].

An attempt is made to integrate traditional career-guidance, organizational and pedagogical approaches [2], and the capabilities of digital platforms that successfully work in the field of youth policy management in the Sverdlovsk region. The territorial digital multilevel model of career guidance of young people is proposed.

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