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Abstract. The publication considers factors that are influencing formation of scientists image especially: availability to inform scientist or scientific organization about the registration, scientometric indices, use of global identifiers to improve accuracy in calculating indicators, publication of papers in journals with high impact factor, publications in resources that provide visibility in global information space, involvement in global communications system, level of competence. Specialists in various fields of science developed a number of practical recommendations for various techniques and tools that can be used and are helpful to create and to make, both personal image and image of the organization, institution, firm, etc. Also, main directions of using digital technologies to create the image of scientists are identified and substantiated. Scientists formulated recommendations to make their own image using digital systems based on analysis of scientific literature and personal experience: author's digital identifier ORCID, profiles in international scientometric systems, saved publications in electronic libraries, profiles in social and scientific electronic networks, etc.

1. Introduction

The Concept of Digital Economy and Society Development of Ukraine for 2018-2020 [8] states that integration of Ukrainian science into the European research space will provide an opportunity to develop advanced scientific ideas, participate in interdisciplinary projects focusing on promising ideas, technologies and innovations. Also, one of the important elements of the EU Digital Single Market and part of the paradigm "Open Innovation – Open Science – Openness to the World" is development of the European Open Science Cloud and European Data Infrastructure. The main areas of harmonization of Ukraine's research initiatives with the European Research and Innovation Area include: development of interoperable digital infrastructures for educational and scientific institutions, connection to the GEANT educational network and distributed computing system, data collection, storage and processing of European grid infrastructure; opening access to data and publications made at the expense of state funding, creation of technological "road maps" of public-private partnership, commercialization of scientific developments for industry and social challenges, etc.

Today, one of digital society features is rapid flow of scientific data obtained as result of scientific research. It leads to increase in requirements for their quality and level of development of scientists' digital competence. Also, it is important to build scientist image. It is a part of its professional recognition, scientific career, as it directly affects award of scientific degrees, academic titles, various grants, awards, scholarships, etc.

Oleksandr F. Konovets [27] notes that image-dominant is number of scientist publications as well as correct choice of communication channel, target audience, authority and level of scientific publications. In the scientific environment there are criteria for professional status of a scientist: academic degree, academic title, number of publications and number of citations by other researchers, reviews, academic and state awards, etc. Scientist image can be measured in several ways: 1) through an expert survey and recognition of its results in the form of awards, prizes, grants, other forms of public recognition; 2) involvement of special, so-called quantitative and qualitative methods - content analysis, index citation, impact factor, on the basis of which the ratings of scientists on these scales are compiled; 3) use of sociological methods of public opinion research: surveys, interviews, questionnaires.

Scientists image is researched and measured by the rating of their scientific publications in various digital open systems in information society. We agree with the call made in the article [67]: "Do you want to effectively present your own scientific publications, find new colleagues, open new opportunities for funding, learn your scientometric indicators? – Start building your virtual scientist profile now!"

The research relevance on scientist image formation with use of digital technologies is due to:

- mass process of science and education digitization as an important component of the digital society development and need to ensure open access for researchers to variety of information resources and research results;
- introduction of the open education and open science concepts, which requires development of relevant competencies in scientists, as well as in future PhD;
- scientists are interested in tools for measuring citation of their own publications and open access to information resources;
- introduction of innovations in scientific activity and educational process (institutional depositories, electronic libraries, scientometric systems and databases, electronic social networks, electronic journal systems, systems for conferences, etc.);
- development of various curricula, manuals and textbooks for preparation of future PhD, which requires harmonization of training graduate students methods and use of digital technologies, taking into account their constant updating and improvement.

2. The latest publications analysis

Peculiarities of specialists image formation and universities are considered in researches [2], [4], [5], [11], [34], [37], [42], [44], [50], [51], [57], [58], [63] and others. Various aspects of digital open systems use to support scientific activities are described in: Drahomira Herrmannova [16], Valeriy Yu. Bykov [7], Svitlana M. Ivanova [22], [23], [24], Liliia A. Luparenko [33], Tetiana L. Novytska [45], [46], [47], Oleg M. Spirin [7], Andrii V. Semenets [59], Vasyl P. Martsenyuk [59], Ilami Yasna [68], Anna V. Iatsyshyn [17], Alla V. Kilchenko [26], in particular, their application in the preparation of future PhDs is covered in publications [9], [17], [20], [26], [38], [43], [48], [69], [65] and others. Features of digital technologies use for research and organization of the educational process are considered in the works: Volodymyr O. Artemchuk [18], [19], [21], [29], Isaiah T. Awidi [1], Olga V. Bondarenko [3], Oleksandr Yu. Burov [6], [21], [52], Liudmyla H. Havrilova [15], Anna V. Iatsyshyn [19], [21], [29], [32], Olena O. Lavrientieva [30], Benedetto Lepori [31], Oksana M. Markova [35], Yevhenii O. Modlo [39], Pavlo P. Nechypurenko [41], Olga P. Pinchuk [52], Svitlana I. Pochtoviuk [53], Oleksandr O. Popov [19], [21], [29], [72], Serhiy O. Semerikov [61], Mariya P. Shyshkina [19], [52], [54], Oleksandra M. Sokolyuk [19], [52], Vladimir N. Soloviev [55], Oleksandr V. Syrovatskyi [64], Michael Thai [66], Yana V. Topolnik [14], Tetiana A. Vakaliuk [60], Snizhana O. Zelinska [71]

and others. However, works analyzed above do not contain comprehensive consideration of main areas of digital systems use to build scientists image. We state that problem of scientists image formation is only under development and requires special research, as scientific research on its solution is insufficient.

The publication aim is to define and substantiate directions and means for scientist image formation in conditions of digital transformation of society.

3. Main material

First of all, let's consider concept of "image" and its components. In recent decades, the concept of "image" became widespread and was involved in various spheres of social life, initially in advertising and marketing, due to revival of business and commerce, where image is a factor influencing consumer consciousness. Subsequently, this concept began to be used in psychology, sociology, culturology, pedagogy and management. Currently, the concept of "image" is interdisciplinary, one that synthesizes features of different spheres of human existence and at the same time is special for each individual scientific field [4].

In modern conditions, image formation arises on the border of psychology, economics, sociology, philosophy, culturology, pedagogy, political science and other sciences, as evidenced by growing number of scientific publications and research on image issues and active involvement categories "image" to the conceptual apparatus of various sciences [4].

Lack of single interpretation of image leads to the fact that researchers have different approaches to determining its typology, structure, as well as functions which it performs [44]. Common definitions of the term "image": 1) advertising, representative image of someone (for example, a public figure), created for the population; 2) purposefully formed image (person, phenomenon, object), designed to exert emotional and psychological influence for the purpose of promotion, advertising, etc.; 3) image, real or imaginary appearance, attitude to them on the basis of their popularity and success, trust and sympathy of people; 4) purposefully formed image (of a person, phenomenon, object), designed to exert emotional and psychological influence on someone for the purpose of promotion, advertising, etc.; 5) specially designed and purposefully implemented image of an object or phenomenon; 6) self-promotion, etc. [4]. Related to the term "image" are several concepts, in particular, "stereotype", "image", "reputation", "representation", "authority", "brand".

The publication [44] states that idea of person as a specialist, a master of his craft allows you to create professional image, an important component of which is personal image, which contributes to professional functions of individual, its career growth and skills in a particular field. Image is a communication tool with audience, result of conscious work, especially in situations where image is part of professional success. Therefore, image, including professional, is a complex socio-psychological phenomenon. It is difficult to assess qualitatively according to certain objective criteria, although real need for this is quite high.

Positive professional image, in our opinion, can be considered as indicator of quality implementation of specialist in particular field of activity. It depends on its willingness to create such image [44]. Therefore, it is important to purposefully form image given ability of a person to change properties and qualities that create its image through modification of activities, appearance, development of certain abilities, changes in behavioral patterns and more. Image creation activity is component of any professional activity related to work of specialists in professions such as "person-person", "person-team", "person-large social groups". It helps to increase productivity of the main professional activity of subject and improving its acmeological characteristics [4].

Scientists from various fields of science developed a number of practical recommendations for various techniques and tools use. They help to create and build both personal image and image of the organization, institution, firm, etc. Let's analyze in more detail specifics of dissemination of information about scientists, directions of development, techniques and tools that should be used to build the image of a scientist in today's digital transformation of society.

The publication [56] describes methodological principles underlying the regulations adopted in Ukraine. They determine the procedure for state certification of scientific institutions. The problems of implementation of government decisions on transition to international criteria for evaluating the work of scientists are analyzed. Emphasis is placed on analysis of methodological approaches that characterize publishing activity of researchers and research institutions.

The work "Criteria of a Scholar" [28] highlights the problem of personality in science. Its contribution to the world treasury of knowledge is identified. Aspects of professional and public recognition of the scientist are revealed. The main attention is paid to analysis of modern criteria and methods of evaluation of scientists' activity. The world experience of construction of scientometric indicators and features of their application in Ukraine are analyzed. The scientific biography as phenomenon of scientist recognition is considered.

The research [62] is devoted to study of objective and subjective factors that contribute to realization of scientific potential of young scientists. Conceptual interpretation of scientific potential is clarified. It enables its empirical measurement. Two levels of theorizing (macro- and micro-level) are taken into account, but scientific potential of micro-level is more appropriate because it is based on subjective component of scientific potential and allows to study scientific potential of scientific subjects. Macro-level approach is based on neo-institutional paradigm of social development and the resource approach. It emphasizes resource and institutional components of scientific potential. Theoretical interpretation of the concepts "subject of scientific activity", "factors of realization", "scientific activity" is carried out. Realization factors of scientific potential of young scientists are empirically determined and investigated.

Problem of everyday practices of science functioning as a social institution is considered in [11]. There are metaphors comparisons in this area such as: "black box" and "unconscious science". Ethical and pragmatic implications of both approaches are analyzed and our own metaphor of science "reverse side of the mirror" is proposed. Heuristic potential of practical implementation of this metaphor is revealed on the example of presented training program of self-presentation (image creation) and self-organization for young scientists and teachers, developed for the Council of Young Scientists of the Belarusian State University.

The work [25] analyzed culturological aspect of virtual reality nature as an object of study and sphere of scientist self-presentation. Peculiarities of status of an individual transformation as a consumer of various kinds of information in network are determined. Crisis aspects of "user-virtual-user" communication is clarified. An attempt is made to outline the significance of the latest changes in the field of culture related to development and spread of virtual reality.

Analysis of network communities as sources of information communication is performed in the publication [12]. It provides brief description and comparative analysis of popular web communities. The scheme of functioning of the site "Ukrainian scientific Internet community" (http://www.nauka-online.org) is developed.

Development of digital infrastructure (for science and education institutions) is also crucial for ensuring open access to scientific data and knowledge, further commercialization of research, creation of innovations, products and services. New knowledge and developments carried out at the expense of financing from the state budget should be openly available and become property of society as a whole. However, lack of access to global scientific digital infrastructures – to the global knowledge base, computer services, consulting, research in fundamental and applied fields negatively affects Ukrainian science in general, is a significant limitation for Ukrainian scientists, engineers and civil servants. It does not allow assess possibilities of Ukrainian science; look for options for cooperation in international projects, etc., in particular in areas related to digital technologies [8]. Also, it is important to use resources of the European Open Science Cloud and European Data Infrastructure to obtain up-to-date research results by Ukrainian scientists and their implementation in Ukraine.

During this project the Science Europe Association noted in Plan S [10] that, from 2021, all scientific publications on research results funded by public or private grants will be provided by national, regional and international research councils and funding bodies. They must be published in

open access journals, on open access platforms or directly accessible through open access to the repository without hindrance. The document sets out ten principles of open science, namely:

- authors or their institutions retain copyright to their publications; all publications should be published under open license, preferably the Creative Commons Attribution (CC BY) license, in accordance with the requirements set out in the Berlin Declaration (https://openaccess.mpg.de/Berlin-Declaration);
- the fee for open access publication is paid by financiers or research institutions, not by individual researchers; it recognizes that all researchers should be able to publish their work in the public domain;
- sponsors and other research-funded campaigns develop clear criteria and requirements for services that should provide high-quality open access journals, open access platforms and open access repositories;
- financial support for various business models for magazines and open access platforms; when paying for open access publications, they should be relevant to subject matter of publications, and structure of such fees should be transparent to inform the market, finance potential standardization and limit payment fees;
- in cases where high-quality journals or open access platforms do not yet exist, those who fund them will coordinate their creation and support, where appropriate; support will also be provided for open access infrastructures as needed;
- financially encouraging governments, universities, research organizations, libraries, academies and research societies to align their strategies, policies and practices, especially to ensure the transparency of research;
- funds do not support a “hybrid” publication model, however, as a transitional path to full open access in a well-defined time frame and only as part of transformation mechanisms, financial support can facilitate such activities;
- above listed principles are applied to all types of scientific publications, but it is clear that timeframe for achieving of open access for monographs and book sections will be longer and require separate and appropriate process;
- financial commitment that it should evaluate intrinsic and external value of the work and not consider the publication channel, impact factor (or other metrics of the journal) or the publisher, during evaluating research results and making funding decisions;
- financial control of observers’ compliance and authorization.

4. Recommendations for scientist image formation

A group of researchers in the work [58] determined that scientists image formation is influenced by: availability of information about scientist and academic or scientific organization to which its belongs; scientometric indices; use of global identifiers to increase accuracy in calculating indicators; publications of scientist in journals with high impact factor; publications in resources for which visibility in the world information space is provided; involvement in the world communications system; level of competence.

Important qualification mechanism for proving of scientific significance of scientists work, trust in their results is presence of dissertations, students, monographs and regular publications in specialized scientific journals, impact rating, scientometric systems, creation of scientific school of scientists or involvement in this school, participation in various projects, programs, scientific conferences, which testifies to demand for the scientist. Also, it is important to ensure free access to scientific and creative heritage of scientist and its school. It forms high degree of confidence in authority of scientist and supports it and its students. In this aspect new opportunities open up to increase status and confidence in results of its research. In these conditions, there is such phenomenon as formation of personal web pages in the global network. It makes possible to disseminate information not only in their country but also abroad, in the world scientific community [49].

The publication [49] emphasizes that now personal information about scientists on the Internet is growing – on personal pages and websites of official institutions. It can be successfully used in the system of qualification assessments of scientific status of scientists and effectiveness of its research, development of its scientific school or direction. In science there is enough information for objective analysis. The web pages of scientist most vividly show development and personification of knowledge today, represent not only scientist image, but also serve as a source of analysis for predicting of science development, advanced technologies and areas. Personal web pages of scientists became an important component of international scientific information systems, which present scientific publications in an organized interface (Google Scholar Citations, ORCID, Microsoft Academic Search, etc.). It provides ability to enter and identify personal information. Scientists, who today understand importance of citation system, seek to deeply present results of their scientific activities and their continuous development. Bibliographic information, digital copies of publications, annotations of works, links to electronic publications on the Internet, hyperlinks to industry sites, audio files from interviews, texts of lectures, reviews are added [49]. Indeed, today personal websites and web pages of scientists are comprehensive source of biographical and bibliographic information, expanding the opportunity to present to the international scientific community information about their professional activities, scientific results and ideas in form of published and unpublished scientific papers. It greatly helps scientists to create their own image. in the scientific space.

We agree with the statement in the publication [49] that professionally structured and filled on the established principles page with information about scientist allows to significantly increase the level of qualification assessments during the scientific examination of the scientist's work. It is an important issue in the development of Ukrainian today – during discussion of methods of scientific research and efficiency research of scientific institutions. Also, it is more important to provide objective assessments of content of scientific work as an individual scientist, and to study the impact on development of particular branch of individual scientific schools.

The work [13] considered problem of searching for data in social networks. Prospects of using ontological models for a semantic approach implementation into processing of requests from users of social networks are shown. Ontological model of social network "Scientists of Ukraine" was built. It is designed to ensure coordination of scientific activities of domestic scientists. Algorithm for semantic search of information according to the developed ontological model is proposed.

The research [59] proposed approach to creation and integration of user profile data in scientific social networks and open registers. Application of this approach provides maximization of information presentation about scientific publications and research work of scientist for the world scientific community. In this way researcher gets significant opportunities to expand cooperation with domestic and foreign organizations or scientists.

Large-scale study of visibility in scientific social network ResearchGate of American and European higher education institutions is described in the publication [31]. Institutional visibility of ResearchGate is strongly related to number of academic staff. Publications presence in the Web of Science is sufficient condition for institutional profile presence in ResearchGate. For higher education and research institutions on the Internet, the ResearchGate score is more relevant to number of publications than to citations impact. The ResearchGate score should not be used to compare institutions on research quality. The ResearchGate became the most popular website among academic social networks in terms of regular users, but not all institutions joined, and therefore assessments given to scientists and institutions are contradictory. Also, presence of European and US higher education institutions in ResearchGate in 2017 was assessed and the impact and quantitative scores of these institutions in ResearchGate were reflected. Most of the 2,258 European and 4,355 U.S. higher education institutions included in sample had institutional profile in ResearchGate. For institutions with doctoral programs, the presence in ResearchGate was closely linked to number of Web of Science publications. Thus, institutional results in ResearchGate reflect volume of research more than clarity; this figure strongly correlates with number of Web of Science publications. However, value of ResearchGate scores for institutional comparisons has some limitations [31]. Therefore, it is also

important for scientific and scientific-pedagogical workers to have personal profiles in various scientometric systems and specialized social networks and to use such systems for scientific communication and personal image building.

The publication [17] explored number of services to determine those that best meet needs of scientists for publication, dissemination and use of scientific information resources. It was also emphasized importance to use open electronic systems with international recognition, including electronic libraries, international scientometric systems, open journal systems to perform scientific work.

Following quantitative and qualitative indicators of publication activity of degree seekers are used during defending dissertations, awarding academic titles, certification of graduate and doctoral students: the Hirsch index, i10-index and others. Thus, in context of development of the digital society and the improvement of digital technologies, the training of researchers of the new technological era, and in particular the training of graduate and doctoral students needs significant updating with the use of digital open systems. We believe that it is important to improve skills of scientists and future PhDs in use of digital technologies not only for research, but also to build a personal image. Figure 1 schematically shows benefits of professional image formation of scientist. It influences career growth, receiving various scholarships, awards, grants, projects, etc. Because scientist's image formation is important part of its scientific career and primarily affects its ratings in various scientometric systems, receipt of various grants, awards, scholarships or additional research funding.

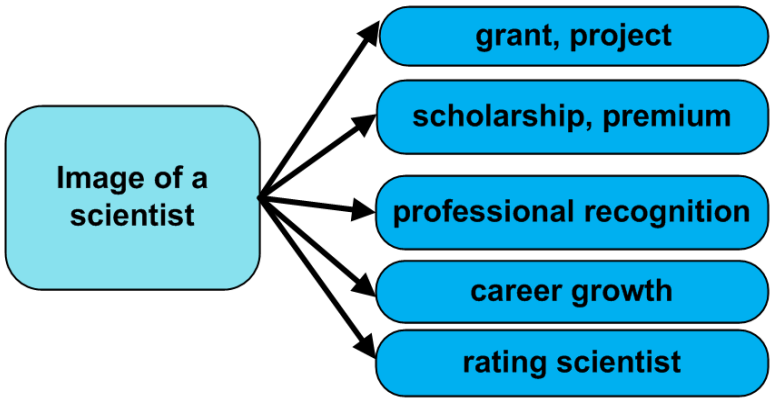

Figure 1. Benefits of professional image formation of scientists.

5. Digital technologies use as means for scientist image formation

There are recommendations based on our own experience [17], [20], [29] and analysis of the scientific literature [5], [12], [36], [49], [58], [59], [63], [68], [70] for scientists and future PhDs on the use of digital technologies for personal image building:

1. *Digital scientist ID ORCID.* It is a unique digital identifier of the author. It solves problem of correctly documents identifying of the particular author. It is advisable to exchange information between profiles and import-export of bibliographic records from profiles and other resources, using the capabilities of specialized bibliography management systems to save time (Mendeley, EndNote) [58].

The ORCID accounting system provides researchers with two main opportunities: obtaining of unique identifier and monitoring of research work results; use of application programming interface for data transfer between different accounting systems and establishment of authorship of scientific works in each of them. Project participant is provided with unique identifier and personal profile in the ORCID register after registration. It allows you to control data of your own research results. It can be entered into ORCID register, edit your personal information, transfer data from one accounting system to another and establish the authorship of scientific papers in each of them, establish communication with other researchers or organizations. Information about the ORCID should be added when sending

publications, when applying for grants, used in other research processes, entered into various search engines, scientometric databases and social network to ensure the link between the scientist's name and the results of his research. It will contribute to improvement of information links at the international level, increase the results representation of domestic research in the world scientific space [36].

2. *Information about the scientist on the official organization website where the researcher works.* One of science personalization types is creation of such pages on official institutions websites which are related to scientist activity. Important attribute of websites pages of official institutions is link to full-text resources of institutional repositories. It makes possible to increase scientist visibility in the scientific space, to increase citation rates of its works [49].

Personal pages of scientists should also include information about the Internet addresses of personal profiles in scientific information systems (Google Scholar Citations, Microsoft Academic Search, ORCID, Scopus, Publons, etc.). It will allow you to explore scientists citations network, to establish links between scientists in particular area of research. Thus, presentation and assessment completeness of personal scientist contribution depends on many components. Since bibliometric and statistical methods are common methods in the world scientific environment, the most important principle is to involve wide source base for bibliographic identification of personal contribution and development of scientific schools. Scientists themselves should be interested in presenting such important sources as dissertation abstracts, scientific papers, which are subject primarily to bibliometric analysis. Important element of personal web pages metadata of scientists should also be other forms of scientist activity: membership in the editorial boards of journals (titles of journals), related to scientific connections of the person (supervisors, opponents, editors, reviewers, students, co-authors), list of all publications of scientist and publications about its life and work with references to electronic versions of documents [49].

The work [49] emphasized that scientist personal page should contain accumulated information about results of its scientific activity (information about publications, reports, patents, etc.). Some of this information can be represented in the form of appropriate references to bibliographic databases. Data stored in system should be accessible from outside (experts, colleagues, bibliographic institutions, etc.). This approach ensures evolutionary development of the bottom-up scientific space, and existing Internet technologies make possible to implement this approach today.

It is very important to want to take on the formation of consolidated systems of personal information about scientists for a state that seeks to conquer information space of science. It helps to form idea of national science and achievements of scientific institutions and communities. Examples of such consolidated systems exist in many countries, including Russia (“Russian Scientists”) and Belarus (“Belarusian Scientists”) where these systems were created by integrating web page into the search documentation of scientific libraries. These systems may contain various information that expands idea of scientist identity in the authoritative file “Scientists of Belarus” maintained by the National Library of Belarus. It contains not only detailed questionnaire of the scientist but also information, for example, about scientific dynasties: the presence of relatives with degrees and scientific titles, their personal data; other relevant information is added; contact telephones, etc. in addition to the usual biographical and bibliographic data characteristic of biographical systems. Collected in authoritative file, branched and semantically related information provides comprehensive information about research teams, scientific dynasties, publishing activity of scientists, etc. [49].

Ukraine also implemented similar project called “Scientists of Ukraine” [40]. It is one of the information blocks of the complex project “Science of Ukraine: access to knowledge” (http://www.nbuv.gov.ua/node/3565). Also, the system “Scientists of Ukraine” is systematized by fields of knowledge, scientific degrees and titles, regions, departmental and institutional subordination of the register of scientists of Ukraine. The system is designed to search for scientific publications and publications of Ukrainian scientists, related to electronic library and information resources. Retrospective information and information about scientists who do not have degree but have scientific publications may also be entered in the register of scientists. Search and information capabilities of the

system make it possible to: find colleagues engaged in relevant field of research; select lists of scientists by place of work, place of dissertation defense, institution, department, city; view list of scientists publications: abstracts, dissertations, books, scientific articles; download available full texts of scientific publications; receive information on available information sources of reference and biographical nature; determine range of scientists connected by scientific and family ties; view information of bibliometric profiles of scientists; use automatically created list of co-authors. We are impressed by appeal stated on the main page of the "Scientists of Ukraine" system, namely "We hope to make image of Ukrainian science better with your help!".

3. *Self-archiving of scientific results (electronic libraries, depositories, etc.)*. Own scientific works (articles, monographs, manuals, experimental data, audio recordings of various scientific events, electronic presentations and abstracts, etc.) should be placed (self-archived) in electronic libraries or institutional repositories. "Self-archiving" means free copy of electronic document on the World Wide Web placement by the author in order to ensure open access to it. Mostly, this term refers to self-archiving of articles in peer-reviewed scientific journals and conference proceedings, as well as dissertations, research results to increase its availability, use and citation. In various electronic libraries there is a section of statistics. Using it you can perform operational slice of data on information resources use. Scientist can track use dynamics of its own scientific works, how often they are interested in results of scientific research, and thus assess how relevant is the problem he is working on, or his colleagues are working [17].

4. *Personal profiles in scientometric systems (Google Scholar, Scopus, Web of Science and other).* Scientist can track bibliographic references to his publications, view citations, citation schedules of his publications after creation of personal profile in this system. Scientometric platforms can be powerful tool for publishing, disseminating and analyzing of research results use (citation). Using these systems it is possible to carry out quantitative and qualitative evaluation of scientific results of both individual researchers and research teams or organizations [17]. Indeed, the "index-citation" is a kind of rating scale that determines quantitative and qualitative contribution of scientist into science. However, this criterion is formalized and therefore seems to depend less on subjective influences. So, it is still cannot be considered only reliable one. Most experts believe that the citation index is only one of scientific level indicators that is reached by the scientist [27].

5. *Electronic social and professional networks (ResearchGate, Mendeley, Academia.edu, Facebook, etc.).* We believe that electronic social and professional networks due to convenience of their tools and services became main ones for quick feedback from public and dissemination of their own scientific results. For example, there are electronic social networks created specifically for the scientific community, namely: ResearchGate, Ukrainian Scientists Worldwide, Computer Science Student Network, LinkedIn, Scientific Social Community, SciPeople and others. Areas of application of electronic social networks by scientists and future PhD: scientist self-presentation; search for scientific material and tracking news about scientific mass events; support of scientific contacts and organization of thematic groups or pages; evaluation and monitoring of the effectiveness of own scientific works.

We will describe some examples of application aspects of electronic social and scientific networks for scientist image formation and performance of research work [17]:

1) it is important to search scientific material and track news about scientific events. Register in it, create a private page, post information about yourself and make settings. You can have personal pages in various social networks. It all depends on your goal: communicating with other scientists or finding scientific contacts for events, etc. Many scientific mass events are held in the world every day: conferences, seminars, round tables, master classes, trainings, etc. on topics related to your research, new books and journals are published. Researchers try to disseminate their research results to colleagues by posting links to them or announcing where they can be viewed or downloaded. In scientific social networks you should subscribe to selected person or thematic page and new news will be displayed in your news feed. If you are doing research try to watch news every day and you will really know and focus on scientific research on the chosen problem;

2) to maintain scientific contacts, present themselves and organize thematic groups or pages. It is necessary that the information is comprehensive – you need to mention awards, diplomas and certificates when posting information about yourself on a personal page. Therefore, academic social networks are the best space for establishing professional contacts. You can write a message to the author whose publication you are interested in and ask additional questions. Electronic social and professional networks due to popularity can be a good tool, allowing you to use different methods: group work, discussion, solution and analysis of situational problems, getting advice and more. Also, with the help of electronic social and professional networks can be a significant information impact, which will expand the awareness of changing the worldview of users of these networks. You can create a thematic group, invite participants to it and together explore a problem, share experiences, present research results, etc.;

3) to conduct certain parts of experimental research (surveys, questionnaires, tests) or to implement a joint project. The networks functionality allows you to create closed and open groups. It can include only members defined by the administrator, so in a closed group it is possible to place the necessary material and information; texts, videos, images, links, surveys, questionnaires, etc. In addition, there is opportunity to conduct surveys, independently evaluate learning outcomes by all users of the group and conduct discussions, share experiences, and simply communicate with like-minded people. We believe that electronic social networks can be powerful tool for conducting certain aspects of research;

4) to assess and monitor effectiveness of their own research. Research should be actively discussed in process of its implementation and not only after the publication of the results. The researcher wish to share its own experiences in professional networks is great opportunity to hear feedback about their research. For this purpose you should also use statistics tools offered in most social networks. Received analytical reports will show which publications attract the most attention and approval and from which countries users are interested in your posts and publications [29]. We emphasize that modern scientist should be professional in electronic and academic social networks.

6. Approbation of research results (reports, speeches, webinars, videos, participation in scientific events). Important role in scientist image formation is played by its dialogue with public - both directly during meetings and through the media. It is participation in public, scientific discussions, open round tables, seminars, press conferences, as well as in such image events as Science Days, exhibitions, seminars, festivals, intellectual and scientific games, talk shows on television and others. [27].

Figure 2 presents personal profiles of scientists in various scientometric systems, academic social networks, etc.

We state that today use of digital technologies is relevant and forced measure. General public will be able to get acquainted with scientific results. It will affect scientist image formation and institution image where the researcher studies or works [17]. Also, more and more often scientists image is researched and measured by rating of their scientific publications in various digital open systems in the Science Citation Index system.

It should be emphasized that despite understanding of self-presentation importance of scientists in online social communications. Personalized pages and personal websites of scientists have number of shortcomings in terms of information completeness. Another disadvantage of personal information presenting about scientists on the web is multiplicity of personal pages posted on different sites. The main problem here is need for constant support in current state of many personal pages on various sites [49].

In order to solve this problem there are number of interconnected digital systems, creating personal profiles on them. Scientists can import or export personal data through exchange formats to other scientific information and scientometric systems.

From our own experience and information on the information resources https://researchgate.net, https://www.mendeley.com we will describe some recommendations for improving personal digital profiles:

- every time of your appearance in search results, your photo and institution name, along with your name, help other researchers to quickly identify you.
- personal photo availability in your profile is also a great way to increase visibility in search engines, because it is proven that profiles with photos are viewed 3 times more than those without author photo;
- institution name where you work must be relevant, because it is displayed next to your name;
- you can help others understand importance of your research, open access to your publications makes you more open to potential colleagues, sponsors and employers;
- indicate your research interests and research areas that you do or that interest you; listing your interests and skills increases your search visibility and helps you find researchers with similar interests;
- provide detailed information on previous jobs and your experience of participating in various studies, grants, projects, etc.;
- specify keywords to summarize current and future areas of research;
- specify your other profiles or export data from different profiles;
- update information in your digital profiles.

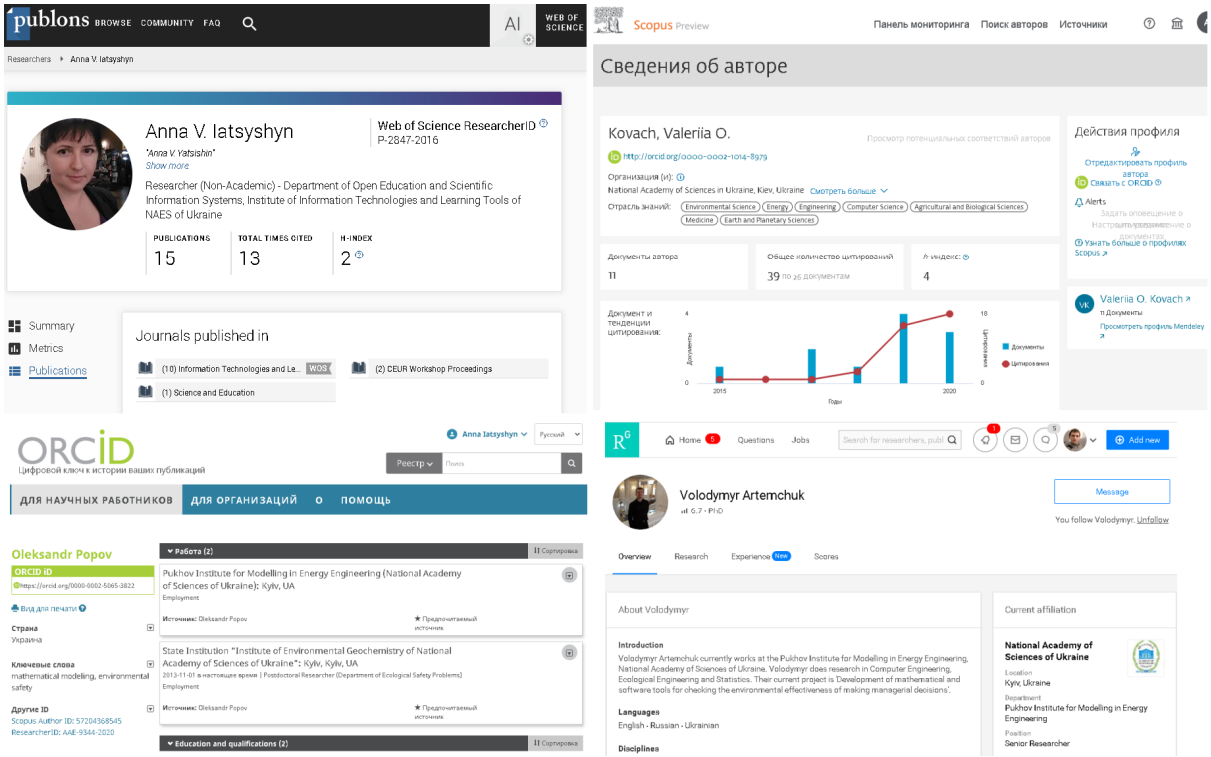

Figure 2. Personal digital profiles of scientists.

6. Conclusions and prospective for further researches

Currently, use of digital technologies is effective for conducting, presenting and implementing results of scientific research in practice. IT market is constantly improved and new digital technologies are developed. Mastering them is important for training scientists, university professors, future PhDs because they are ones who carry out important research for the development of science and education.

We analyzed scientific literature and our own experience. So, we emphasize that development scientist and future PhD image formation is important multifaceted and purposeful process aimed at professional recognition and public activity. Therefore, we recommend use of digital technologies.

Their mastery and use have positive effect on development of personal image and image of institution where scientists work or graduate students.

Authors identified and substantiated directions and means for scientist and future PhD image formation in digital transformation of society. Scientists also given recommendations for their own image formation using digital systems: 1) create an author's digital ID ORCID; 2) create profiles in various international scientometric systems; 3) update personal information on institution website where you work, add hyperlinks to your profiles in scientometric systems and digital ID ORCID; 4) use social networks to interact with colleagues, share experiences, observe colleagues reactions to discussions or information on certain issues, invite colleagues to participate in various scientific events, etc.; 5) present your own scientific results in open access: self-archive scientific publications in electronic libraries; 6) monitor use of their own scientific publications and identify those that are "popular", etc.

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