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## Top 100 Occupations in Demand at Modern Russian Enterprises: Interaction and Communication in the 21st century

To cite this article: N V Yudina and O A Seliverstova 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **483** 012015

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# Top 100 Occupations in Demand at Modern Russian Enterprises: Interaction and Communication in the 21st century

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**Abstract.** Today labour market reflects hi-tech and innovative economic development of the XXI century. The system of professional occupations is subject to the effect of various factors, prestige being one of them. The paper analyses 100 occupations highly demanded by Russian enterprises. These nominations represent the synergetic nature of professional sphere in the life of society involving major advances in science and engineering. The paper offers subject-based classification of prospective occupations and provides characteristic of their communicative potential.

## 1. Introduction

Occupations nominations or job titles are lexical units which can be referred to as markers of industrial and economic spheres. Over the recent years, job titles have been under study by researchers in various fields: some presenting a socioeconomic classification of job titles with regard to health issues [1], others undertaking a gender study [2], still others offering a language modelling approach to discovering novel labour market occupations [3]. Considered together the studies above provide evidence of the high value of further research focused on jobs and occupations, and their titles, since these nouns join together labour and social spheres, and specify an individual's position in the society. In the Russian language there are over 8,000 lexical units for job titles, position titles, and occupations. This variety accounts for scholarly novelty of our paper which seeks to reveal nominations of the most highly demanded jobs in the XXI century.

## 2. Main part

The current economic situation in Russia affects the conditions of HR policies and determines its directions and prospects. Noteworthy is the view the RF President Vladimir Putin shared in relation to prospective jobs, mentioning in this regard “experts in such fields as big numbers and their processing, artificial intelligence, aerial, submersible, and ground vehicles” [4].

Research into focus areas is made by a number of federal and regional enterprises at the government initiative. Thus comprehensive data about the most demanded and prospective jobs in the form of reference resource can be found on the official web-site of the Ministry of Labour and Social Protection [5].

The work on compiling of Directory of Occupations has been carried out since 2015 as a joint project of the Ministry of Labour and Social Protection and the National Council and involves Union of Industrialists and Euntrepreneurs, Chamber of Commerce and Industry, all-russian non-governmental organization of small and medium business Opora Rossi, Federation of Independent Trade Unions of Russia, Agency for Strategic Initiatives to facilitate new projects, Agency for Professional Associatons and Regular labour Force “World Skills Russia”, National Agency for Skills Development, as well as educational establishments and unions. Presently, the Directory of



Occupations is a current regularly updated official resource approved by the order of the Ministry of Labor of Russia dated November 02, 2015 № 832 "On Approval of The Directory of Occupations Demanded In The Labor Market, New and Promising Occupations, Including Those Requiring Secondary Vocational Education " (amended by the order of February 10, 2016 № 46).

Directory of Occupations specifies the most prestigious and popular jobs at today's Russian enterprises from the legally approved 1600 fields of labour activity. All professions are divided into larger groups in accordance with activities performed. Thus, the portal describes 40 groups of professions. Let us consider some of the thematic groups. In this paper the authors undertake to compile their own classification of popular occupations.

We think it appropriate to distinguish 100 lexical units productive in the twenty-first century from 1600 names of the professional activities. The criteria for identifying relevant nominations are their being included into The All-Russian Classifier of Occupations and Economic Activities, into directories structure, atlases of jobs, as well as into regional lists (the "Top region" project), and their frequency in the modern Russian language (according to The National Corpus of the Russian language).

In the course of analysis of the legal grounds, official lists and codifiers, and types of work, we arrived at the conclusion that most nominations belong to the sphere of industrial production. Some sources, namely The All-Russian Classifier of Vocational Occupations, Positions of Employees and Tariff Categories [6], Atlas of Popular Professions, Directory of Occupations Of the Russian Ministry of Labour [7] do not distinguish the sphere of military-professional activity. However, the view of emerging work spheres will be incomplete without nominations of military ranks and positions.

The list of military personnel occupations can be found in the Federal law of 28.03.1998 No. 53-FZ (as amended 03.08.2018) "Concerning Military Duty and Military Service" [8], also in the "OK 010-2014 (ISCO-08) The All-Russian Classifier of Occupations (adopted and signed into law by the order of Rosstandart of 12.12.2014 No. 2020-St) [9].

Detailed examination of the information presented in the codifiers, classifiers of labour activity, regulated by the normative legal acts has let us identify the most productive lexical units that reflect the current situation in the labor market.

As a result of analysis, occupations in demand were classified with regard to activity field. Thus, "a set of generalized labour functions of similar nature, results, and working conditions" [10: 8] is referred to as occupation field. Occupations are grouped with regard to their integration of nature, implying the same purpose, objects, processes involved, and instruments of labour [ibid: 22].

The sequence of groups and nominations of occupation are listed on the basis of the quantitative principle of the nominations to be included. The most productive in the XXI century are 10 types of professional activity, namely:

1) social activities (health, education, physical education and sports), 16 nominations, for example: obstetrician, nursery teacher, doctor, instructor in physical education, nurse, baby sitter, speech pathologist, teacher of high school and college, pharmacist, psychologist, social worker, athlete, coach, teacher, pharmacist, medical assistant;

2) activities in the field of public services (13 nominations): car mechanic, receptionist, bartender, driver, maid, designer, pastry chef, fashion designer, landscape designer, waiter, hairdresser, cook, seamstress;

3) activities in the field of industry (instrument-making, mechanical engineering, robotics, intersectional industrial activity), 12 nominations, e.g.: engineer-mechatronics, laboratory chemist, mobile robot technician, adjuster-repairman of equipment, equipment operator, mechanic, specialist in additive technologies, technician in composite materials, technician-designer, turner, miller, electrician;

4) activities in the field of culture, art, media, publishing (11 nominations), namely: actor, performing artist, presenter, sound engineer, art critic, correspondent, cameraman, editor, Director, photographer, choreographer;

5) administrative-and-managerial and official activities, including the field of law (10 nominations), e.g.: attorney, executive, clerk, director, chief, notary, secretary, forensic investigator, bailiff, and lawyer;

6) activities in the field of architecture, topography, construction and housing (9 nominations), e.g.: architect, cadastral engineer, mason, painter, plumber, locksmith, cartographer, topographer, plasterer;

7) activities in the field of agriculture, forestry, fish farming (8 nominations), e.g.: agriculturist, veterinarian, winemaker, huntsman, breeder, animal technician, ichthyologist, forester;

8) activities in the field of financial, management and marketing activities (8 nominations), e.g.: actuary, auditor, business analyst, accountant, dealer, manager, insurance broker, SSM-specialist;

9) activities in the field of information and communication technologies (6 nominations), namely: database administrator, programmer, WEB and multimedia applications developer, network and system administrator, information security technician, technical writer;

10) military-professional activity (6 nominations), namely: admiral, general, captain, major, colonel, private.

The above classification does not claim to be complete and will be supplemented in the course of our further work.

We would like to dwell on a group of occupations related to industrial activity (instrument-making, mechanical engineering, robotics, industrial activity). Nominations in this group most fully represent the synergetic nature of industrial activity. Thus, such lexical units as engineer and technician are part of the composite names of the mechatronics engineer, and design technician. Moreover, the classification can be supplemented by such complex lexemes as logistics engineer, metallurgical engineer, mechanical engineer, microchip engineer, software engineer, process engineer, and many others.

### 3. Results and Discussion

Our observations show that each field features clearly distinguished nuclear nominations, most susceptible to transformation to produce more complex word-building, lexical, and syntactic structures. For example, from the group of names describing activities in the social sphere, the noun doctor is productive. The latter is a hyperonym in relation to a composite and two-component nominations like military doctor, resuscitator doctor, sanitary doctor, and many others [11: 29-33]. Alternatively, the Russian word “артист” (thematic group-activities in the field of culture, art, media, publishing) is a unified designation of representatives of different occupations in the sphere of art, eg.: It stands for “theatre actor”, “film actor”, “orchestra musician”, “dance group performer”, “choir singer”, “solo singer”, “circus performer”, and others [11: 13-14]. Finally, noteworthy is high frequency of the nomination manager in media language [12: 80]. It features productivity at the lexical and word-building levels, resulting in neologisms, previously unrecorded in reference books and codifiers.

It should be noted that a number of new nominations is “the representation of well-known productive models with a key word” [13: 60-64]. The nomination of technical writer (activities in the field of information and communication technologies) is interesting since the common perception of a writer in the minds of native speakers is associated with the field of art. The occupation of a technical writer appeared in the XXI century as a result of transformation of responsibilities. It refers to a specialist engaged in the “development of technical documentation and methodological support of products in the field of information technology” [14, 15].

### 4. Results and conclusions

Occupations referring to the field of industrial activities are currently the most promising [16]. The field of industry covers such areas as aircraft, automotive, nuclear industry, rocket, and space industry, shipbuilding. Automation and robotics in production make the occupations of an engineer, a mobile robot technician, an equipment repair technician, and a design technician more and more popular,

prestigious and, most importantly, universal [17]. Noteworthy is the group of nominations referring to activities in the field of information and communication technologies. These are especially relevant in the era of information and digital society. It is for a reason that most occupations in the field of industrial, information and communication activity are listed in the Top Region ratings of various regions in the Russian Federation [18].

In the 21st century, the boundaries between industries are getting “blurred” and occupations in demand are at the intersection of different fields. To conclude, we would like to note that professional activity has integrative nature due to industrial, scientific, and technological progress [19]. The study of emerging occupations of the XXI century opens up new horizons for further study of the nomination system of occupations and labour fields, as well as for the study of industrial ethics and communication in the modern world.

## References

- [1] Schyllert Ch, Andersson M, Hedman L, Ekström M, Backman H, Lindberg A & Rönmark E 2018 *Job titles classified into socioeconomic and occupational groups identify subjects with increased risk for respiratory symptoms independent of occupational exposure to vapour, gas, dust, or fumes, European Clinical Respiratory Journal*, 5:1, DOI: <https://doi.org/10.1080/20018525.2018.1468715>
- [2] Foster S 2018 *Job titles need to reflect modern times and go gender neutral, British Journal of Nursing* 27:7, pp 417-417
- [3] Marrara S, Pasi G, Viviani M, Cesarini M, Mercurio F, Mezzananza M, and Pappagallo M 2017 *A language modelling approach for discovering novel labour market occupations from the web. In Proceedings of the International Conference on Web Intelligence (WI '17)*. (New York, NY, USA) pp 1026-1034. DOI: <https://doi.org/10.1145/3106426.3109035>
- [4] Karnaukhova N, Gordeev V 2018 *Putin declared the most demanded jobs of the future* [Electronic resource]. Access mode: <https://www.rbc.ru/politics/02/09/2018/5b8b00859a79471448f0fded> (access date: 10.11.2018)
- [5] *Directory of Occupations* [Electronic resource]. Access mode: <http://spravochnik.rosmintrud.ru/about> (access date: 1.11.2018)
- [6] Malushko E, Maletina O, Lizunkov V, Tsybaneva V 2016 Use of virtual learning system for educating students with disabilities and special needs *International Multidisciplinary Scientific Conferences on Social Sciences and Arts* 481-487
- [7] *The All-Russian Classifier of Vocational Occupations, Positions of Employees and Tariff Categories* [Electronic resource]. Access mode: <http://professions.org.ru> (access date: 10.11.2018)
- [8] *Atlas of Popular Professions, Directory of Occupations Of the Russian Ministry of Labour* [Electronic resource]. Access mode: <http://spravochnik.rosmintrud.ru> (access date: 10.11.2018)
- [9] 2018 *Federal law of 28.03.1998 No. 53-FZ “Concerning Military Duty and Military Service”* (as amended 03.08.2018) [Electronic resource]. Access mode: <http://base.garant.ru> free (access date: 9.11.2018)
- [10] Shamne N L, Shishkina E V 2017 German popular scientific medical online media: structural and functional aspects *Vestnik Volgogradskogo Gosudarstvennogo Universiteta-seriya 2-yazykoznanie* **16** (2) 143-151
- [11] Ferreira R, Lizunkov V G, Politsinskaya E V 2017 Formation of entrepreneurial competencies of university graduates in conditions of transition to the universities of the third generation *Novosibirsk State Pedagogical University Bulletin* **7** (6) 195-211
- [12] *The All-Russian Classifier of Occupations* (adopted and signed into law by the order of Rosstandart of 12.12.2014 No. 2020-St) [Electronic resource]. Access mode: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_177953/](http://www.consultant.ru/document/cons_doc_LAW_177953/) (access date: 9.11.2018)

- [13] 2016 *Formation of the system of professional qualifications* (Moscow: Pero Publishing House)
- [14] Gorbunova M V, Kirilyuk E V and Oreshkina A P 2011 *1000 professions* (Rostov-on-the-Don)
- [15] Isaeva N V 2009 *Compound Nominations of People's Occupations in Advertisements* (Moscow: Vestnik MGOU) pp 78-81
- [16] Ergunova O T, Lizunkov V G, Malushko E Yu, Marchuk V I, Ignatenko A Yu 2017 Forming the system of strategic innovation management at the high-tech engineering enterprises *IOP Conference Series: Materials Science and Engineering* **177 (1)** 012046
- [17] Golovanova E I 2015 *New Words for People's Occupations and Positions in Russian* (Chelyabinsk) pp 60-4
- [18] Serebryakova S V, Milostivaya A I 2017 Semantic emergence as a translation problem *Vestnik Volgogradskogo Gosudarstvennogo Universiteta-seriya 2-yazykoznanie* **16 (3)** 48-57
- [19] Hardware and Software Complex *National Register of Professional Standards* [Electronic resource]. Access mode: [http://profstandart.rosmintrud.ru/obshchiy-informatsionnyy-blok/natsionalnyy-reestr-professionalnykh-standartov/index .php?ELEMENT\\_ID=50435](http://profstandart.rosmintrud.ru/obshchiy-informatsionnyy-blok/natsionalnyy-reestr-professionalnykh-standartov/index.php?ELEMENT_ID=50435)