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Digital Literacy and its Relevance to Comparative Education Researchers: Outcomes of SciVal Analytics

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Abstract

Digitisation is a multidimensional phenomenon having direct and indirect impact on all aspects of human activity. The sphere of science and research, especially comparative education research, is being inevitably affected. The dizzying pace of socio-economic changes complicated by COVID-19 pandemic made it obvious that we are dealing with the digitisation of shock, rather than phased, character. The article states the lack of serious scientific reflection on the currently witnessed "shock digitisation" of science, complicated with growing digital illiteracy of researchers. The latter is demonstrated through rigorous literature review and SciVal Scopus analytics. The article is concluded with the idea that the field of comparative education research requires future profound rethinking of assumptions and agenda priorities in several aspects. They include general qualification requirements for modern comparative education researcher and comparative research procedures, functional and digital literacy of comparativists, changes in their research career potentials and prospects.

Keywords: digitisation, shock digitisation, digital transformation of science, digital literacy, digital illiteracy, comparative education researcher, Open Science, SciVal Scopus analytics

INTRODUCTION

The 21st century is characterized by profound digitisation of all spheres of human activity directly affecting science and education. On the one hand it seems quite promising while, on the other hand, it is a very complicated process generating enough challenges (Kvon et al., 2018; Levina et al., 2019; Shinkevich et al., 2020; Yermilova et al., 2019). They demand quick adjustment to the new digital realia (Chigisheva, 2018). General requirements for research procedures, skills of modern researchers and the level of their functional and digital literacy are increasingly modified by external factors (Galchenko et al., 2020; Gimaliev et al., 2020; Tugun et al., 2020; Zyubina et al., 2019). They include internationalization and globalization of science and education, rapid development of Open Science, emergence of citizen science phenomenon, boom of digital pedagogy, etc. The mentioned factors also expand the range of research career opportunities. A. Toffler (1971) gives a vivid characteristic of the 21st century researchers. They live in the era of the information and postindustrial society and must be learning continuously: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn" (Toffler, 1971, p. 414). This idea of the philosopher is reflected in the European Charter for Researchers – The Code of Conduct for the Recruitment of Researchers (2005). The Charter specifies that "researchers at all career stages

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Contribution to the literature

- The study revealed the gaps in problematizing the "digital literacy" phenomenon in its relation to comparative education researchers facing the challenges of "shock digitisation" of science.
- The paper highlights key trends and contributors to modern "digital literacy" studies using the sets of metrics provided by SciVal analytics.
- The findings suggest the need for developing new digital skills emerging as a result of the growing requirements to comparative education researchers working in the context of "shock digitisation" and Open Science.

should seek to continually improve themselves by regularly updating and expanding their skills and competencies. This may be achieved by a variety of means including, but not restricted to, formal training, workshops, conferences and e-learning" (European Charter for Researchers – The Code of Conduct for the Recruitment of Researchers, 2005, p. 5). Hence, at present, continuous professional development gains special importance for researchers when it comes to digital literacy. It is crucial for researchers to understand what is going on in the "digital research world". Otherwise, they risk finding themselves in the so-called "Digital Middle Ages" (Chigisheva, 2018). This is particularly the case now, when external circumstances set the pace for transformations and progress. The COVID-19 pandemic is an example of the above, with its pronounced impact on the social and economic life worldwide. Clearly, the dizzying speed of digitisation suggests the shock nature of the process rather than its staged and smooth character. In the recently published work by the European scholars Leifert et al. (2020) "shock digitization" is associated with the accelerated transfer of all spheres of human life activity into virtual space. They also cover a wide range of challenges generated by this process, from the technology-related to cybersecurity issues. Within this new global challenge, the scientific and educational sphere is naturally involved, as well (Potapova et al., 2018). While the issues associated with the revolutionary implementation of digital technologies in education in the new environment have received a wide resonance and discussion (Ivanova & Ivanov, 2020), systemic transformations in the field of science have not been conceptualized sufficiently.

These facts prioritize the following gaps of education research agenda: the lack of profound scientific reflection on the currently witnessed "shock digitisation" of science and escalating digital illiteracy of researchers (Soltovets et al., 2021). In the domain of comparative education, the latter works as a major stagnating factor impeding progress and thus significantly reducing the quality and efficiency of researcher's work.

METHODOLOGY

The purpose of the research is to probe on the conceptualization of the "digital literacy" phenomenon in terms of its interpretation, research and topicality trends in the field of comparative education. A large body of bibliometric data from Scopus database has been analyzed using the new generation analytic tools available from SciVal by Elsevier research intelligence. The analysis encompassed the publication records dated 2015-2020.

The assumptions of the study relied upon a multi-dimensional analysis of related publications addressing up-to-date research focus and approaches. The use of the in-built SciVal powerful metric values system allowed to trace existing and new emerging research trends reflecting growing interest to digitisation of science and the extent to which it is related to the trajectories of comparative education research. The process was much facilitated by SciVal search features which helped to obtain a more complete picture of the scholars' performance and institutions' activities. The user-friendly mechanism of visualization helped to combine different sets of metrics, including scholarly output, citation impact, views count, citation count, field-weighted citation impact, prominence percentile (Research Metrics Guidebook, 2019).

The metric of scholarly output has revealed research frontier institutions in the field of comparative education. Moreover, it helped to visualize the picture of location-specific publications authored by the scholars affiliated with the most active institutions in the topic, evidencing the distribution of publications worldwide. The analysis of publication performance metric outlined the main topical trends dominating digital literacy related publications indexed by SciVal analytics. Key words and phrases were also taken as units of analysis to evaluate the field range of studies addressing the issues of "digital literacy", as well as the visibility of publication activity of the most active researchers in the domain of education. The outcomes of SciVal data analysis have provided evidence-based understanding of the place that digital literacy takes in current comparative education discourse influenced by "shock digitisation".

Table 1. Thematic blocks according to SciVal data for the keyword "digital literacy" for the period 2015-2020 (top-10)

№	Topic	Topic Number	Scholarly Output	Field-Weighted Citation Impact	Prominence percentile
1	Information Literacy; Library Instruction; Librarians	T.564	1926	0,63	96,459
2	Multiliteracies; Literacy Practices; New Literacies	T.12557	1322	1,12	94,136
3	Mobile Money; Computer Supported Cooperative Work; Health Auxiliary	T.13652	1131	0,9	95,004
4	Knowledge Organization; Paul Otlet; Library Science	T.14103	969	0,37	87,631
5	Digital Divide; Internet Use; Information and Communication Technology	T.19995	916	1,87	95,832
6	European Higher Education Area; Mental Competency; Information and Communication Technology	T.24895	568	0,74	89,712
7	Digital Natives; Millennials; Information Literacy	T.26023	443	0,65	84,429
8	Game-Based Learning; Video Games; Digital Literacies	T.22515	414	0,63	84,01
9	Media Literacy; Audiovisual Equipment; Digital Natives	T.31933	295	0,6	78,845
10	Library Services; Information Literacy; Contingent Valuation	T.29766	272	0,8	76,987

Source: compiled by the authors using SciVal metrics

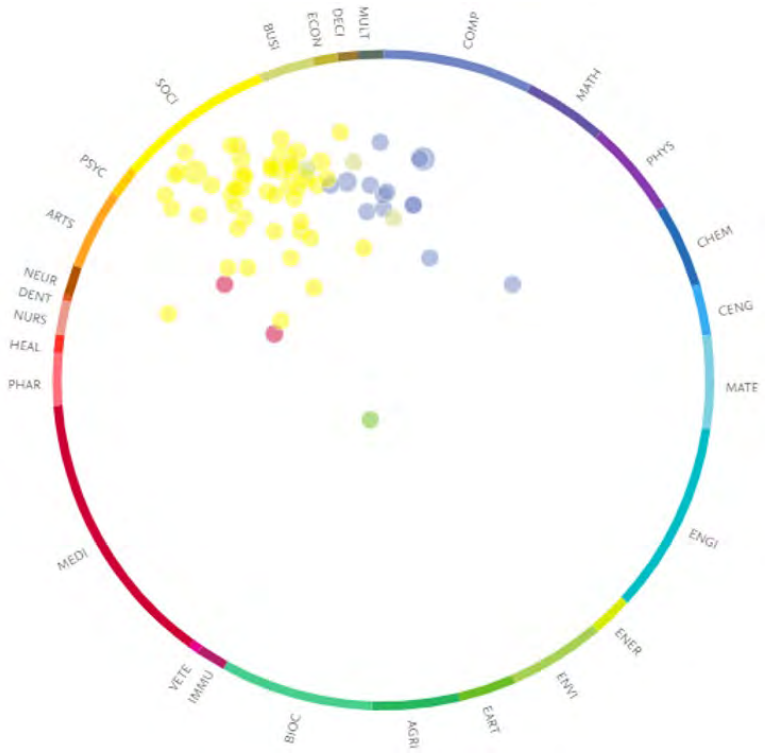

Figure 1. Distribution of topics of publications by the keyword "digital literacy" for the period 2015-2020 by fields of science
Source: compiled by the authors using SciVal metrics.

RESULTS

Digital Literacy Studies as a Key Trend of Today

The notion of digital literacy was forged into concept and then introduced into scientific discourse in 1997 by Gilster (1997). At that period, it was understood as an "ability to understand and use information in multiple formats from a wide range of sources when it is presented via a computer" (Gilster, 1997, p. 1). It was later reconceptualized by several scholars who primarily tried to define the term, specify its essential attributes or develop the toolset for digital literacy assessment (Boronenko et al., 2019; Eshet-Alkalai, 2012). The number of concept interpretations is increasingly rising, with the essence of digital literacy being transformed to suit various sociocultural contexts. Recent years have witnessed the trend towards studying the phenomenon of digital literacy within the framework of social and professional traits. Thus, approaches to studying digital literacy have diversified regarding the age groups (old age people, adults, young adults, children), level of school and vocational training, family roles (children/parents), jobs. Some studies deal with digital literacy as a mechanism of social inclusion and access to government services.

Regardless the variety of issues considered by digital literacy studies (Table 1), social sciences prevail over other areas in terms of numbers and topical variety (Figure 1).

Most publications in the sphere of education aim to find and describe distinctive features of digital literacy for learners. The definition of "digital literacy" is being further elaborated, along with the mechanisms of forming and developing digital literacy in key teaching/learning actors: schoolchildren, teachers, students.

Explanation of abbreviations used in Figure 1: COMP = Computer Science; MATH = Mathematics; PHYS = Physics and Astronomy; CHEM = Chemistry; CENG = Chemical Engineering; MATE = Materials Science; ENGI = Engineering; ENER = Energy; ENVI = Environmental Science; EART = Earth and Planetary Sciences; AGRI = Agricultural and Biological Sciences; BIOC = Biochemistry, Genetics and Molecular Biology; IMMU = Immunology and Microbiology; VETE = Veterinary; MEDI = Medicine; PHAR = Pharmacology, Toxicology and Pharmaceutics; HEAL = Health Professions; NURS = Nursing; DENT = Dentistry; NEUR = Neuroscience; ARTS = Arts and Humanities; PSYC = Psychology; SOCI = Social Sciences; BUSI = Business, Management and Accounting; ECON = Economics, Econometrics and Finance; DECI = Decision Sciences; MULT = Multidisciplinary.

Some scholars concentrate on bridging the digital divide in school education systems of different countries (Quaicoe & Pata, 2015). Secker (2012) presents a thorough analysis of the issue, highlighting personalized approach to developing researcher's digital literacy with due regard to the skills acquired, as well as the needs faced. Tsatsou (2018) goes deeper claiming that researchers' digital literacy relates not only to technical skills, but to emotions and social practices emerging in the process of harnessing technologies for research. Certain publications consider the crucial role of libraries in shaping digital literacy for research, as well as its increased importance in the context of Open Science that promotes open access to publications (Soltovets et al., 2020).

The concepts of digital literacy and illiteracy are gravely under considered in current scientific discourse. Digital literacy tends to be dealt with in terms of skills required for professional functioning, especially when the requirements are not met. The statement might be well illustrated with the study made by Cortina-Pérez, et al. (2014). It analyses the roots of teachers' digital illiteracy. Among the reasons found were the following underlying factors:

- insufficient technical equipment;
- lack of teachers' awareness about the scope of available digital technologies for self-development;
- lack of skills and knowledge how to use digital technologies for teaching, as a result of conservative attitudes to digital media and poor confidence in the matter.

Surprisingly, no publications are currently exploring distinctive characteristics of researcher's digital illiteracy, though digital transformation has equally affected modern academic and scientific research environment. Despite the long-lasting research interest to digitisation of science, the entire spectrum of its impacts remains obscure. The impact of digitisation on the research process was described in detail by Meissner et al. (2016), who noted that the use of digital technologies in scientific activity is mainly reduced to data collection and its analysis, presentation of research findings and publications. Hence, researchers do not use the full scope of opportunities provided by digitisation and Open Science. At the same time, there are assumptions that the scientific community will gradually adapt to working in "digital" environment. The forced shift to distance format due to the spread of COVID-19 has ultimately accelerated the demand for digital science skills. This unprecedented challenge is left out of account.

Digital Literacy of Comparative Education Researchers in SciVal Analytics

Studies in various fields of social sciences account for 5.7% of all Scopus indexed publications, as it is seen from SciVal analytics of worldwide research within the period of 2015-2020 (Figure 2).

Most of the works published are education related (Figure 3).

The key topic clusters in social sciences include "education", "e-learning", "teacher-student" issues, "schooling" and some specific types of "literacy". Table 2 shows key topic clusters (top 50 topics) in social sciences. The title of "comparative education" falls under the topic T.20410 "Comparative Education; Educational Reform; UNESCO", with 77.960 topic prominence percentile, being part of the topic cluster ranking 31 in the top-50 list (Topic Cluster TC.150 Teacher; School; Education).

University College London, University of Bristol, Hong Kong Institute of Education, University of Cambridge, Kyoto University are among the most prominent institutions demonstrating high scholarly output of research in the field of comparative education (Table 3).

As far as Europe-based studies on the matter are concerned, one should note active contribution of scholars affiliated to the following institutions: University College London, University of Würzburg, University of Cambridge, Heidelberg University, University of Ljubljana, University of Florence, European University Institute, San Domenico di Fiesole, National Research Institute "Higher School of Economics" (Table 3). The only Russian higher education institution in in SciVal top 50 institutions leading in comparative education research field is

Figure 2. General distribution of publications in all subject areas for 2015-2020
Source: compiled by the authors using SciVal metrics

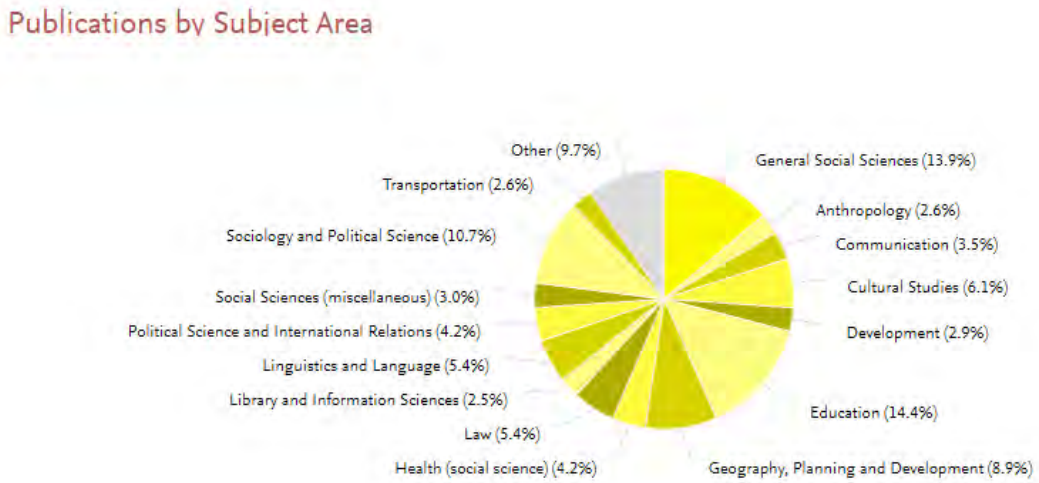

Figure 3. The main thematic areas in the social sciences for 2015-2020
Source: compiled by the authors using SciVal metrics

Table 2. Top-50 Topic Cluster in social sciences by prominence percentile, 2015-2020

№	Topic Cluster	Topic Cluster Number	Scholarly Output	Field-Weighted Citation Impact	Prominence percentile
1	Electricity; Energy; Economics	TC.81	57401	1.38	99.264
2	Work; Personality; Psychology	TC.29	61662	1.08	97.858
3	Traffic Control; Transportation; Models	TC.107	54617	1.08	96.787
4	Child; Adolescent; Schools	TC.99	43137	1.16	95.114
5	Students; Medical Students; Education	TC.43	62655	0.91	94.378
6	Pervasive Child Development Disorders; Autistic Disorder; Child	TC.139	33427	1.11	94.244
7	Tourism; Tourists; Destination	TC.239	30140	0.98	90.964
8	Disasters; Floods; Risks	TC.438	24168	1.1	90.495
9	Students; Teaching; Education; E-Learning	TC.200	35876	1.1	89.893
10	Gambling; Internet; Students	TC.555	19780	1.45	89.826
11	Language; Reading; Semantics	TC.88	32180	1.26	88.153
12	Morals; Research; Behavior	TC.267	26122	1.22	87.818
13	Publications; Periodicals As Topic; Research	TC.275	30189	0.81	87.617

Source: compiled by the authors using SciVal metrics

Table 2 (continued). Top-50 Topic Cluster in social sciences by prominence percentile, 2015-2020

№	Topic Cluster	Topic Cluster Number	Scholarly Output	Field-Weighted Citation Impact	Prominence percentile
14	Media; News; Journalism	TC.279	29002	1.26	87.349
15	Wastes; Solid Wastes; Municipal Solid Waste	TC.703	14018	1.09	87.015
16	Party; Election; Voter	TC.172	38130	1.32	86.479
17	Violence; Women; Child	TC.310	21403	1.08	85.408
18	Roofs; Heat Island; Buildings	TC.622	14621	1.08	84.404
19	Ecosystem Services; Willingness To Pay; Valuation	TC.955	10665	1.31	83.668
20	Water; Water Resources; Water Management	TC.527	13777	1.1	81.392
21	Housing; Neighborhood; Gentrification	TC.281	22789	1	81.325
22	Transgendered Persons; Female Homosexuality; Bisexuality	TC.580	16622	1.3	79.719
23	Fossils; Pleistocene; Paleolithic	TC.127	18937	1.26	79.518
24	Offense; Police; Offender	TC.207	24634	1.24	79.451
25	Research; Technology; Industry	TC.637	14602	1.26	79.384
26	Teachers; Language; Student	TC.265	28423	1.26	78.581
27	Vehicles; Accident Prevention; Highway Accidents	TC.315	19884	0.79	78.38
28	Forest; Deforestation; Conservation	TC.663	12268	1.23	77.845
29	Students; Russian; Education	TC.1114	20851	1.04	77.644
30	Sports; Students; Athletes	TC.443	16552	1.06	77.175
31	Teacher; School; Education	TC.150	28528	0.98	76.64
32	Food; Consumers; Farmers	TC.437	14525	0.92	76.238
33	Students; Science; Learning	TC.230	24615	0.9	75.234
34	Health Literacy; Patients; Internet	TC.717	14831	1.12	73.762
35	Students; Education; Teaching	TC.542	15921	1.04	73.494
36	Nurses; Nursing; Students	TC.212	19420	0.94	71.954
37	Watersheds; Soil Erosion; Catchments	TC.476	10542	1.02	70.75
38	Criminals; Violence; Mental Health	TC.388	12556	0.83	69.478
39	Mathematics; Students; Teacher	TC.391	18529	0.97	69.076
40	Vehicle Routing; Algorithms; Vehicles	TC.931	8911	1.02	69.009
41	Microfinance; Farmers; Cooperative	TC.532	12903	0.84	68.407
42	Science; Risks; Nanotechnology	TC.550	11361	1.22	67.738
43	Emigrants And Immigrants; Hispanic Americans; Acculturation	TC.646	11769	1.08	67.269
44	Buildings; Design; Urban Planning	TC.857	11240	0.88	66.801
45	Research; Clinical Trials As Topic; Patients	TC.463	13453	0.94	66.734
46	Students; Teacher; Learning	TC.337	16084	0.92	66.6
47	Human Engineering; Ergonomics; Automation	TC.588	11954	1.09	66.332
48	Research; Science; Periodicals As Topic	TC.932	8126	1.88	66.265
49	Child; Geography; Research	TC.596	17430	0.97	66.198
50	Photogrammetry; Unmanned Aerial Vehicles (UAV); Remote Sensing	TC.972	10522	1.16	65.529

Source: compiled by the authors using SciVal metrics

Table 3. Top-50 institutions with faculty doing research in comparative education

№	Institution	Scholarly Output	Views Count	Field-Weighted Citation Impact	Citation Count
1	University College London	12	124	0.5	18
2	University of Bristol	12	157	2.47	54
3	Hong Kong Institute of Education	9	127	1.72	22
4	University of Cambridge	9	94	3.67	94
5	Kyoto University	8	80	5.4	84
6	University of Sydney	8	91	2.44	85
7	Loyola University Chicago	6	46	0.68	23
8	Monash University	6	20	0	0
9	North West University	6	31	0.43	2
10	University of New England	6	65	3.19	94
11	Columbia University	5	49	0.65	12
12	The University of the West Indies	5	30	0.06	2
13	University of Glasgow	5	42	2.02	9
14	University of Maryland, College Park	5	44	6.45	26
15	University of Nottingham	5	30	0.2	4
16	University of Würzburg	5	37	1.24	2
17	Arizona State University	4	43	2.32	29
18	Australian Catholic University	4	28	0.66	3

Source: compiled by the authors using SciVal metrics

Table 3 (continued). Top-50 institutions with faculty doing research in comparative education

№	Institution	Scholarly Output	Views Count	Field-Weighted Citation Impact	Citation Count
19	The University of Auckland	4	28	3.28	29
20	University of Melbourne	4	11	0.55	2
21	University of the Western Cape	4	16	0.08	3
22	University of Toronto	4	29	0.72	13
23	University of Wisconsin-Madison	4	29	3.2	33
24	Australian National University	3	7	0.07	3
25	Deakin University	3	26	0.84	4
26	Durham University	3	18	3.04	8
27	Heidelberg University	3	10	0.47	5
28	Higher School of Economics	3	83	0.33	5
29	Queensland University of Technology	3	18	0.84	4
30	SOAS University of London	3	19	0	0
31	The University of Hong Kong	3	120	3.71	33
32	Universidade de São Paulo	3	52	0.05	1
33	University of British Columbia	3	11	0.44	2
34	University of Calgary	3	19	0.09	2
35	University of Edinburgh	3	35	0.69	6
36	University of Florence	3	14	2.07	2
37	University of Johannesburg	3	34	1.09	15
38	University of Ljubljana	3	13	0.1	1
39	University of Minnesota Twin Cities	3	32	1.02	25
40	University of Pittsburgh	3	34	0.07	1
41	Western Norway University of Applied Sciences	3	21	0.16	5
42	Brigham Young University	2	24	1.28	4
43	Charles Sturt University	2	12	2.28	2
44	Consejo Nacional de Investigaciones Científicas y Técnicas	2	14	0	0
45	Edge Hill University	2	15	0.82	9
46	European University Institute, San Domenico di Fiesole	2	1	1.05	3
47	Florida Atlantic University	2	6	0.33	2
48	Georgia State University	2	11	0.33	2
49	Griffith University Queensland	2	26	0.72	5
50	Huazhong University of Science and Technology	2	10	0.11	1

Source: compiled by the authors using SciVal metrics

Higher School of Economics which ranks 28. The publications of scholars affiliated to the British universities are numerous enough to suggest an outstanding contribution of the UK researchers to the domain.

The analysis of publication performance in the areas related to digital literacy has revealed two topical trends among the publications presented in SciVal analytics as indexed within the period of 2015-2020. Digital literacy tends to be tackled either instrumentally, as an integral part of computer-assisted processes in professionally driven issues research, or as a component of students' development mechanism (Figure 4).

The cloud of key phrases related to the cluster T. 76725 Digital Literacy; Knowledge Society; Learning Communities shows the shift of the research focus towards digitisation of industrial/vocational and educational environment with apparent gaps in publications related to researchers' digital literacy (Figure 5).

Comparative education terrain also seems poorly studied in terms of direct digitisation impact, according to the "key words" analysis. A clear turn to the issues of practical or technical nature is seen in the scope of publications within the cluster.

The issues of digital literacy in education have been actively studied by the scholars from Spanish, American, British, Australian and Chinese universities, as demonstrated by Figure 6.

The total number of Europe-based research publications indexed in Scopus database in cluster T. 76725 Digital Literacy; Knowledge Society; Learning Communities can clearly evidence the precedence of European "rival" scholars in comparative aspects of digital literacy exploration (Figure 7).

It is worth noting that most publications considering educational and institutional aspects of digital literacy have been authored by British, as well as Spanish-speaking scholars, as evidenced by the total scholarly output and field-weighted citation impact.

However, an important constraint is that the works of the mentioned scholars fail to tackle a comparative aspect in digital literacy. The SciVal metrics analysis also revealed the lack of works on the topics of digital literacy within the framework of Open Science phenomenon, especially the issues of modern researchers' digital

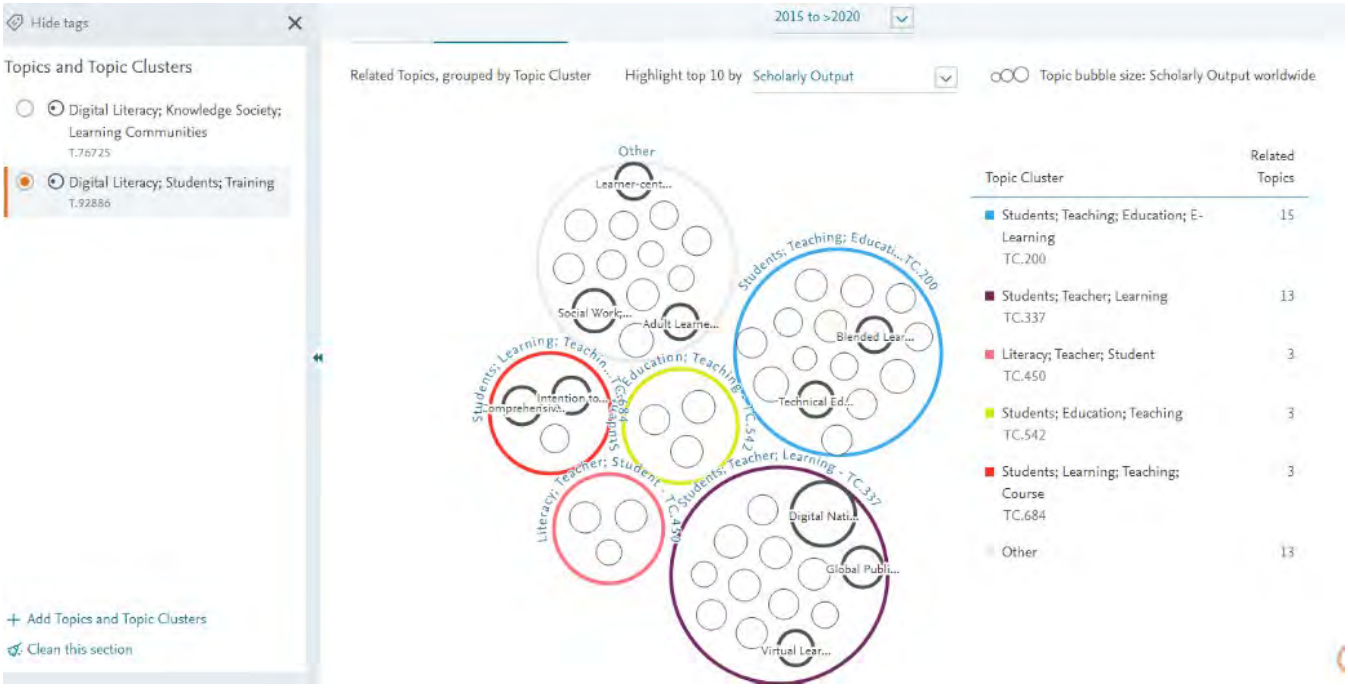

Figure 4. Trends in the subjects of publications in the cluster T. 92886 Digital literacy; Students; Training for the period 2015-2020
Source: compiled by the authors using SciVal metrics

Figure 5. Analysis of trends in publication activity in the cluster T. 92886 Digital literacy; Students; Training based on the frequency of use of key phrases for the period 2015-2020
Source: compiled by the authors using SciVal metrics

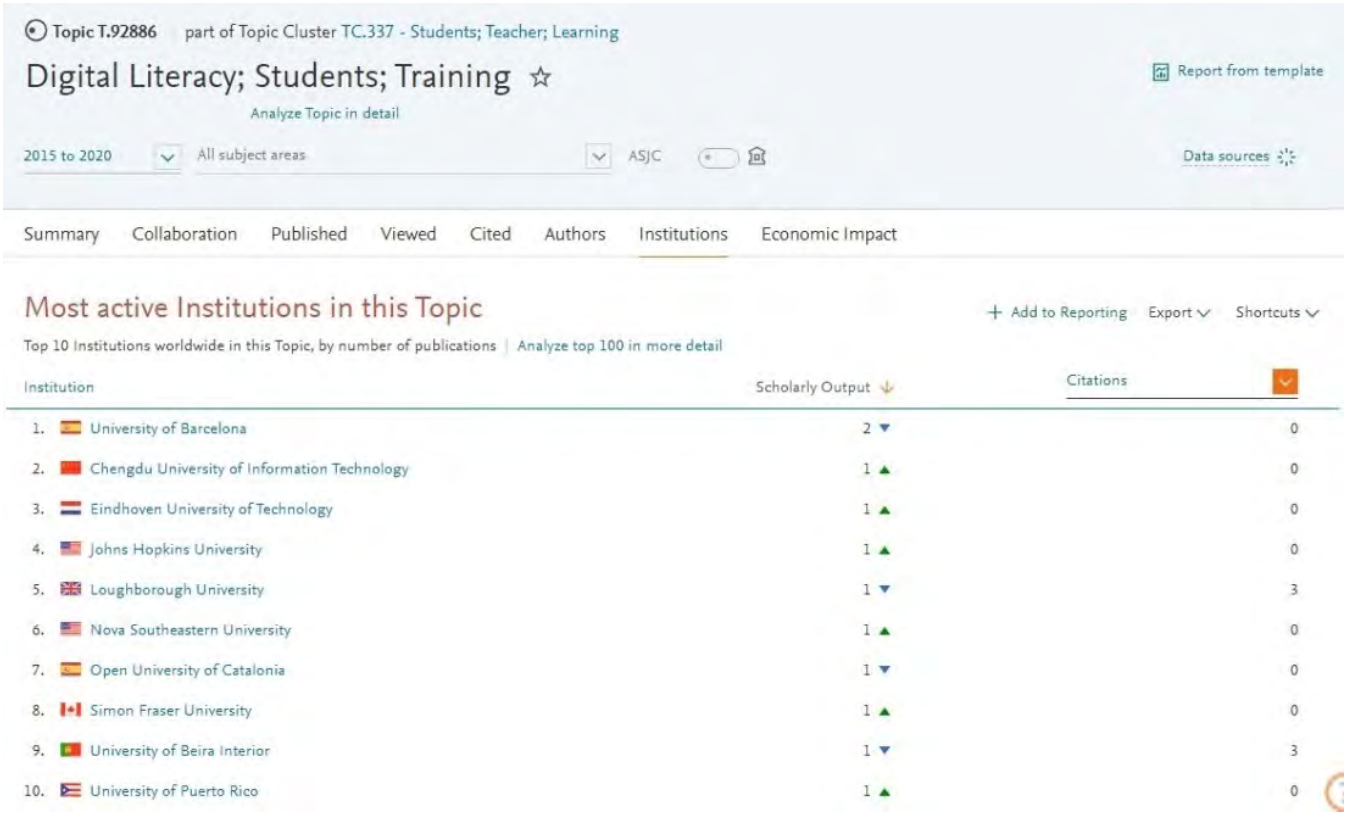

Figure 6. Ranking of universities by the number of publications on the topic of digital literacy for the period 2015-2020
Source: compiled by the authors using SciVal metrics

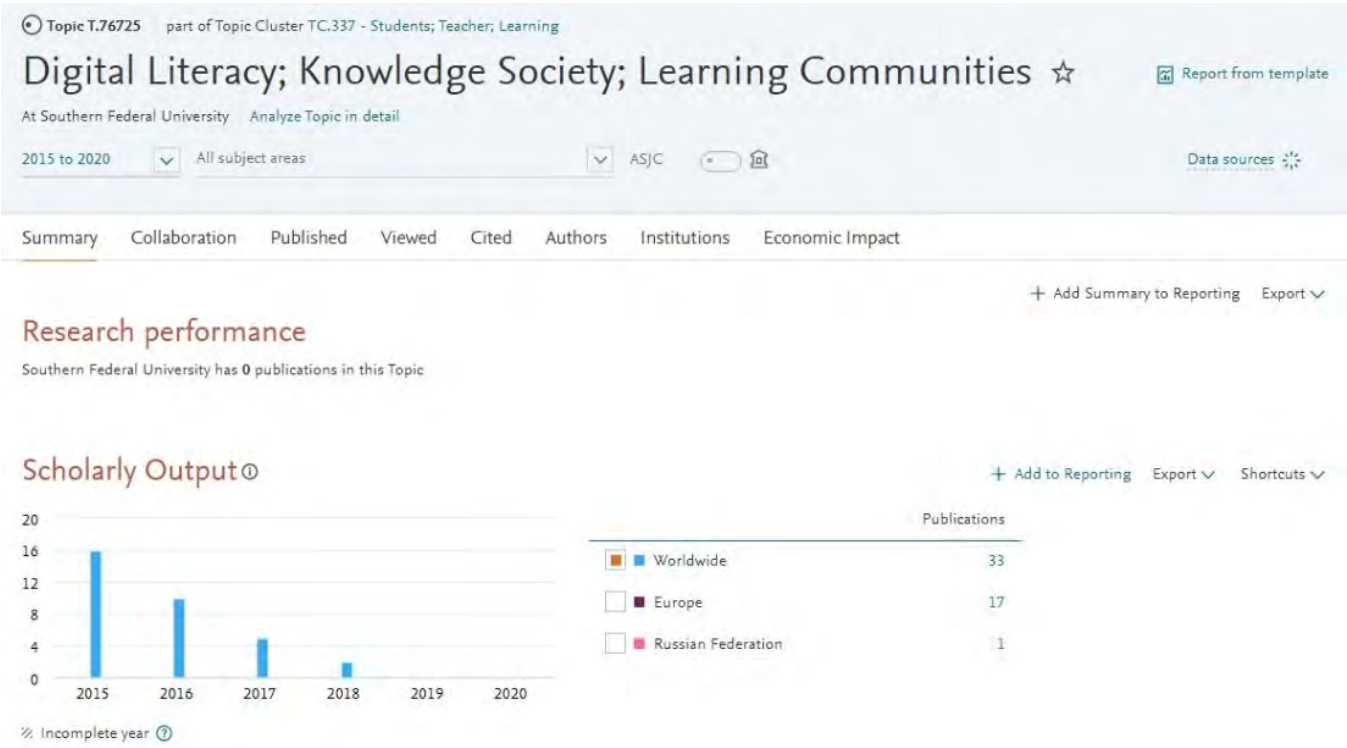

Figure 7. The number of European and Russian studies in the cluster T. 76725 Digital Literacy; Knowledge Society; Learning Communities 2015-2020
Source: compiled by the authors using SciVal metrics

literacy. Few publications in the represented cluster may be accounted for the fact that the authors selecting key words for their articles give no due regard to the cluster-related key words recommended by SciVal.

DISCUSSION

Digitisation is a multidimensional phenomenon affecting directly and indirectly all spheres of human activity. Its intermediate impact on education and science requires a profound rethinking of the assumptions and agenda priorities in a number of issues: general requirements for the modern researcher's qualification, requirements to research procedures, the level of functional and digital literacy of a scientist, changes in research career potentials and prospects. However, relative smoothness and predictability of digitalization has hardly helped the academia to adapt to current global challenges, such as the COVID-19 pandemic. This is noted by many researchers, in particular Tejedor et al. (2020), Edelmann and Schoßböck (2020), and Martzoukou (2020).

Noteworthy that priority is given to the issues of urgent practicalities, while systemic transformations in the field of science have not yet enjoyed sufficient consideration, which is also emphasized in research works by Popova (2019), and Pogorelova and Efimova (2020). With the dizzying speed of socio-economic changes that have swept the world in the last year it is obvious we are dealing with digitisation of shock, rather than phased, character.

"Shock digitisation" contributed to the emergence of the need for the formation and development of new skills for functioning in the modern society. In this regard, the interest of researchers in the phenomenon of "digital literacy" is increasing in modern scientific discourse (Boronenko et al., 2019; Sánchez-Cruzado et al., 2021). Digital literacy being a new type of the XXI century literacy has become a complex phenomenon characterizing various "life" or "soft" skills necessary to operate in the growing digital environments. Studies on comparative education, which describe the experience of different countries in the field of digitalization, are of particular value for understanding digital literacy at the present stage. In most of these studies, the problems of the formation of digital literacy in schoolchildren, students, and teachers are considered. However, the digital literacy gaps of researchers remain a poorly understood and problematic area. As the organizational and methodological research frameworks are being transformed in a new digital environment, the need to rethink and update professional skills for quality research is increasingly felt. Our idea is also supported by Meissner et al. (2016) who point that the Intensive technological environment and high interest in Big Data led to a rapid increase of demand for digital researcher skills.

CONCLUSION

Currently, the need for the digital transformation of science and education is considerably mainstreamed both at the government level and at the level of scientific communities and associations. Nevertheless, the issues of digital illiteracy of comparative education researchers remain an underexplored and problematic area of education studies. The gaps in digital literacy of researchers used to play the role of general constraint to global science development. Digital literacy is currently growing in significance as an absolute prerequisite of a scientist claiming to be functionally efficient in the global academic environment. It should also be emphasized that the professional activity of a comparative education researcher affects the development of the next generation researchers and science. The quality of research in the field of education achieved through methodological accuracy plays an important role for scientific progress in general and the development of the scientific human capacity in particular. Further research in the field is required as it may facilitate consolidation of comparative education experts' and practitioners' opinions, thus summarizing approaches to tackling the problem of digital illiteracy of comparative education researcher. Such studies might potentially mitigate the consequences of "shock digitisation" in Open Science and improve the quality of research in the field of comparative education.

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