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Leadership In Education And Social Media Marketing: Monitoring of Key Indicators

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Abstract— **The article is concerned with the trends of the leadership in the high education and in the digital and SMM market by an analysis of the main indicators characterizing the University Rankings in 2021, Internet and Social media users for 2017-2021 years. The theoretical part of this work was the study of the essence of the «leadership in education» and ranks of universities (overall score, total students, total students per total academic faculty staff, share of international students, share of international staff) as the external key indicators of the leadership.Regions of the world such as UK, Switzerland and USA, according to top 5 universities in 2021 were analyzed on such media channels as Facebook, Instagram, WhatsApp, Facebook Messenger, LinkedIn, TikTok. As the main results of this study were deducted that the correct use of the internet and social networks helps to increase the leadership level of the universities and its brand awareness; creates constant contact and provides relevant information to the audience related education services, forms loyal users and, consequently, increases students number and therefore requirements for the professional skills of the universities' staff.**

Keywords— university rankings, leadership in education, digital transformation, internet, social media, social networks, marketing communications, media reactions and behavior

I. INTRODUCTION

Digitalization has a significant impact on the social sphere and in particular on education. Knowledge becomes open, access to information increases, data processing speed increases, communications construction speed increases. All this definitely affects the lives of each of us, and especially young people and students. The quality of education, the quality of communications, the use of both online and offline learning is of priority importance.

The rating of the world's leading universities should be considered as evidence and an indicator of leadership in higher education. «The success of these rankings is due to globalization of the higher education in which a university may internationally compete for economic and human resources. Higher education institutions are using these rankings as a promotion tool that shows their educational, research or business excellence». (AL-Juboori, Su, Ko, 2011, p.10).

«Using university rankings methodology potentially helps universities identify their weaknesses and formulate strategies to improve their research indicator» (Loyola-González, Medina-Pérez,raymundo Valdez, Choo, 2020).

The modern development of digital technologies leads to globalization changes in all spheres of life. These transformations are especially noticeable in the social and communication sphere and in particular in education.

Now the major trend is «the digitalization of the educational environment and the teaching and learning process. The emerging technologies trend will accompany education in the coming years and more intensive virtual pedagogy and searches for active educational applications» (Ramírez-Montoya, Andrade-Vargas, Rivera, Portuguez Castro, 2021,p. 11).

But, at the same time the ideal education programs should have direct contact with reality. «Managing emotions and media reaction gave the recent distancing caused by the pandemic of COVID-19, which has resulted in the absence of physical contact and relationships through a screen also are very important» (Ramírez-Montoya, Andrade-Vargas, Rivera, Portuguez Castro, 2021, p. 12).

The digitalization and pandemic of COVID-19 have changed requirements for educational programs. «An ideal program should train teachers who show leadership skills and who are, above all, human. It implies a lot of creativity and innovation so that future teachers are constantly innovating and imaginatively creating new ways to access knowledge. The education programs must respond to the labor market demands» (Ramírez-Montoya, Andrade-Vargas, Rivera, Portuguez Castro, 2021, p. 12).

That's why the authors of this paper introduce analyze of universities' positions according to global university rankings (QS) as an external key indicator of leadership in the education

environment and also towards to this university rankings represent main latest trends in the digital sphere and media reaction based on the official dates (Global Digital Overview produced in partnership with We Are Social (https://datareportal.com/; Hootsuite's annual report on the latest global trends in social media https://www.hootsuite.com/; GWI's flagship report Social media marketing trends in 2021 https://www.gwi.com/reports/social/.

II. ANALYSIS OF RECENT RESEARCH

Already a high number of studies analyzed the significance of leadership roles in educational institutions, leadership roles dimensions of successful leadership, leadership activities, and traditional leadership theories (Bisset 2018), (Kapur 2019), (Britishcounsil, 2019).

A number of studies are devoted to the analysis of university rankings, which are an indicator and a tool used by universities for increasing power of the university's brand their research performance at the education environment. (Kalhor, 2020, p. 2), Some researches devoted to branding in higher education (Mourad, Ennew, Kortam, 2011), (Cris Chapleo, 2015).

Some authors review the trend and existing approaches of the most common and popular university ranking systems and evaluations and describe various quantitative/qualitative criteria used to determine the rankings (AL-Juboori, Su, Ko, 2011), (Khosrowjerdi, Zeraatkar 2012), (Alkuwaiti, Vijay , Downing 2019).

Other researches aimed to investigate how reliable the rankings are, especially for universities with lower-ranking positions, and if these rankings are thus a suitable basis for management purposes (Sorz, Wallner, Horst, Fieder 2015); represent high statistical noise limits the conclusiveness of ranking results as a benchmarking tool for university management (Bookstein, Horst, Fieder, Winckler 2010), (Sorz, Fieder, Wallner, Horst, 2015), introduces first contrast pattern-based scient metric study of world university rankings (loyola-González, Medina-Pérez,raymundoValdez, Choo, 2020).

Also, we can read about alternative rating systems of scientific activity of Ukrainian higher educational institutions (Rayevnyeva, Stepurina, 2017) and other countries (Jajo, Harrison 2014)..

Some authors (Kalhor, 2020) introduced the new rankings of countries methods, which compared different world universities' rankings (QS & WR) using weighting countries (W).

There are many ranking systems rank the universities and higher education institutions of the world, nationally or internationally, for example: THE-QS World University Rankings (England), Financial Times Business School Rankings (England), Leiden Ranking (Netherland), Webometrics (Spain), Scimago Institutions Rankings (Spain), The New Global Ranking of World Universities (Russia), Academic Ranking of World Universities (China), HEEACT (Taiwan), 4icu.org University Web Ranking (Australia) (AL-Juboori Su, Ko, 2011,p. 11-12)

University rankings are key drivers in national and institutional strategic planning. The increase in the number of university ranking systems and the diversity of methods and indicators used by these systems necessitates the development of an index that can measure a university's performance in all these systems at once.

Despite the shortcomings and criticisms of world university rankings, such metrics are widely used by students and parents to select institutions and by educational institutions to attract talented students and researchers, as well as funding especially during the COVID-19 pandemic. International university rankings have had a significant influence on various stakeholders in higher education in many countries.

Some researches deal with implications of adjusting to the changes brought about by COVID-19 in the business and education sector (for example, the field of educational design at universities of Australia) (Bellaby, Michael Sankey, Albert, 2020); quality in Distance Learning during the COVID-19 (Lassoued, Alhendawi, Raed Bashitialshaaer, 2020); Dhawan 2020); students' learning behavior during Covid-19 (Dutt, Taneja, Sharma, 2020).

The role of new technologies in education, using of the Internet and Social Media in combination with live communication grows in modern conditions (Prezepiorka, 2021), Lisun, 2020). Therefore, technology is seen as a tool, as an elixir to the future of education (Pinto, Lourdusamy, 2021).

The authors of the current article take into account the results of a huge practical analysis were done by Simon Kemp (Kemp, Report Digital on 2014-2021 years). In this yearly report since 2014 was collected merely all statistics of a comprehensive study of digital, social media users around the world, produced in partnership with We Are Social (https://datareportal.com/).

However, further research is needed on the theory and practice of using SMM in marketing activities for branding in the education sector. This has determined the purpose of the article, which is to summarize the practical indicators of the ranking universities systems and higher education institutions as leading indicators and summarize data about using of Internet and SMM as a modern marketing technology for improving the level of quality of education and future ability of education in general.

III. PRESENTATION OF THE MAIN MATERIAL

The article is aimed at researching the main characteristics of the leadership in the field of education in the context of Digital Transformation based on monitoring the ranking of the world's leading universities according to QS World University Rankings

The research objectives are:
1. an analysis of the QS World University Rankings in 2021 and describe some factors, such as number of the students and staff; indicator «Total students/Total Academic Faculty Staff»; share of international students and staff; which indirectly characterized the leadership in education;
2.   an analysis of the statistical data on the use of the Internet, social networks, digital technologies in some

regions and countries of the world (according to TOP-10 QS World University Rankings in 2021);

3. identification the role of ICT (Information Communication Technologies), especially the Internet and social networks in supporting leadership in education;

4. study global trends in the development of higher education according to the new digital and the COVID-19 pandemic conditions.

Leadership is both an internal component (a property of business processes) and an external component (the result of external evaluation). In our opinion, the concept of «leadership» is closely related to the concept of «branding». Leadership, like external evaluation (ranking place) is evidence that a brand is working. Therefore, QS World University Ranking is considered in this article in some detail according to

regions of the world.

The Quacquarelli Symonds (QS) World University Rankings of the world's top universities produced by Quacquarelli Symonds has been published annually since 2004. The QS rankings use six distinct indicators, namely, the following: academic prestige according to an extensive survey, the results from an employer survey, the student-faculty ratio, citations per capita according to the Elsevier Scopus database, and the proportions of international professors and international students *(loyola-González, Medina-Pérez,raymundo Valdez, Choo, 2020),* https://www.topuniversities.com/eeca-rankings/methodology.

The main indicators of the QS World University Rankings in 2021 for TOP-5 universities of the world are available in table 1. All of those universities have research output on the level «very high».

TABLE 1.
QS WORLD UNIVERSITY RANKINGS IN 2021

World Ranking	University Name/ Country Name	Overall Score	Academic Reputation	Employer Reputation	Faculty Student	International Faculty	International Students	Citation per Faculty
1	Massachusetts Institute of Technology (MIT), USA	100	100	100	100	100	91,9	99,1
2	Stanford University, USA	98,4	100	100	100	99,7	63,6	98,1
3	Harvard University, USA	97,9	100	100	98,6	85,2	69,9	99,1
4	California Institute of Technology (Caltech), USA	97,0	97,0	82,8	100	100	88,2	99,9
5	University of Oxford, UK	96,7	100	100	100	99,4	98,3	81,3

Source: Developed based on: the QS University Rankings of topuniversities.com on 2021

The results of analysis of QS World University Rankings in 2021 by the countries of the Europe and USA are showed in tables 2-3. Different countries have their own characteristics, which are reflected in indicators such as status of university, numbers of total students, numbers of international students and numbers of domestic and international staff. For example, in some regions and countries, private and in others state-owned universities predominate. Of course, in the international aspect, the cost of education for non-residents, knowledge of foreign languages (English), cultural features have a significant impact. The size of universities in terms of the number of students and staff also varies significantly by countries. The ranking of universities, indicators of the number of students and teachers are researched in more detail in this article. Although some universities and the corresponding indicators duplicate the top 5 universities in the world (table 1). Thetas why, we can identify which regions of the world are leading in the ranking of universities.

Europe. According to QS University Rankings 2021, TOP-5 universities of Europe are represented by the United Kingdom

and Switzerland (table 2).

All of those universities in European have research output at the «very high» level and their status is public. Among the TOP-5 Europe university (table 2) the University of Oxford has a maximum overall score of 96,7 points.

The authors of this article have calculated the indicator «Total students / Total academic faculty staff», which shows the number of students per one teacher. This indicator is a maximum of 7,09 (ETH Zurich – Swiss Federal Institute of Technology, Switzerland), minimum – 3,13 (University of Oxford). The analysis shows, that the share of international students is significant in the Europe region. This indicator is changed from 38,21% (University of Cambridge, UK) to 57,96% (Imperial College London, UK). The share of international staff has changed from 38,21% to 57,96%, which is evidence of the leadership, popularity and competitiveness of universities in the European Region (as shown in table 2).

TABLE 2.
TOP-5 QS WORLD UNIVERSITY RANKINGS IN 2021. EUROPEAN REGION

Ranking Region / World	University Name/ Country Name	Overal l Score	Total students	Total students/ Total Academic Faculty Staff	Share of international students, %	Share of international staff, %
1 / 5	University of Oxford, UK	96,7	20786	3,13	39,73	47,17
2 /6	ETH Zurich – Swiss Federal Institute of Technology, Switzerland	95,0	18563	7,09	39,04	75,14
3 /7	University of Cambridge, UK	94,3	19876	3,41	38,21	51,75
4 /8	Imperial College London, UK	93,6	17628	4,46	57,96	54,87
5 /10	UCL, UK	92,9	35897	5,24	56,41	46,78

Source: Developed based on: the QS University Rankings of topuniversities.com on 2021

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North America region. According to the results of the study, the universities of the United States of America are in the lead. In particular, the leaders in the world, according to QS University Rankings 2021, are the Massachusetts Institute of Technology (MIT) (Rank 1), Stanford University (Rank 2), Harvard University (Rank 3), California Institute of Technology (Caltech (Rank 4) (table 1, 3). All of those universities have research output on the level «very high».

The indicator «Total students / Total academic faculty staff» is a maximum of 5,92 (University of Chicago, USA), and a minimum of 2,11 (California Institute of Technology (Caltech), USA).

The universities with the largest share of international students are Massachusetts Institute of Technology (MIT) (33,02%), California Institute of Technology (Caltech) (30,93%).

The universities with the largest share of international academic faculty staff are the Massachusetts Institute of Technology (MIT) (55,83%), California Institute of Technology (Caltech) (53,16%), Stanford University (48,37) (table 3).

TABLE 3.
TOP-10 QS WORLD UNIVERSITY RANKINGS IN 2021. NORTH AMERICA REGION

Ranking Region/ World	University Name/ Country Name	Overall Score	Total Student	Total students/ Total Academic Faculty Staff	Share of international students, %	Share of international staff,%
1 / 1	Massachusetts Institute of Technology (MIT), USA	100	11342	3,77	33,02	55,83
2 / 2	Stanford University, USA	98,4	16260	3,63	22,54	48,37
3 / 3	Harvard University, USA	97,9	23583	5,18	24,66	32,18
4 / 4	California Institute of Technology (Caltech), USA	97,0	2237	2,11	30,93	53,16
5 / 9	University of Chicago, USA	93,1	15335	5,92	28,57	25,12

Source: Developed based on: the QS University Rankings of topuniversities.com on 2021

A number of researches in a higher education institution focused on providing perspectives on the future of educational programs by analyzing trends in educational programs' designs, students and professors' needs for innovative education *(Pinto, Lourdusamy, 2021), (Ramírez-Montoya, Andrade-Vargas, Rivera, Portuguez Castro, 2021)*.

1. According to the *Horizon Report* https://library.educause.edu/, the six trends in education for the next five years are:
2. artificial intelligence (AI)
3. blended and hybrid course models
4. learning analytics
5. micro credentialing
6. open educational resources (OER)
7. quality online learning

Nowadays the main professional requirements to the teacher and latest global trends in education are: (Ramírez-Montoya, Andrade-Vargas, Rivera, Portuguez Castro, 2021).

1. the presence of artificial intelligence flexibility of the education offer;
2. the transformation of the teaching role and the digitalization of the educational environment;
3. the ability to locate, organize and adapt resources for various contexts, as technological advances have opened up significant teaching and learning opportunities;
4. integrating digital tools and social networks in their teaching.

Digital competency is one of the eight core competencies of the European Reference Framework for lifelong learning https://www.eursc.eu/. These competencies enable young

people to leverage content from an academic perspective, i.e., to reflect on developing knowledge. Hence, the competency-based approach in education is still valid. Undoubtedly, the impact of information communication technologies (ICTs) in the academic environment will mark its future; therefore, teachers and students must be trained in their proper use,

consumption and presumption.

According to data from the Report Global Digital Overview of the International Telecommunication Union (ITU), the number of people using the internet has surged over the past year, with more than one million people coming online for the first time each day. In particular, here is (table 4).

TABLE 4.
INTERNET USERS AND SOCIAL MEDIA USERS IN 2014-2021 YEARS WORLDWIDE

	2014	2015	2016	2017	2018	2019	2020	2021
Internet users over time, millions	2485	3008	3429	3779	4021	4388	4540	4660
Social media users over time, millions	1857	2078	2307	2796	3196	3484	3800	4200

Source: Developed based on: Report Global Digital Overview in 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021 years (https://datareportal.com/reports)

The number of the Internet users worldwide for the period 2014–2021 increased by 87% (from 2484 to 4660 million). The number of social media users worldwide more than doubled between 2014 and 2021 (from 1857 to 4200 million).

The number of users of the Internet and social networks is determined by such key factors as the economic development of the country and the standard of living, the level of urbanization and cultural features of the society in a particular region.

According to the results of the ranking of universities in the **European region**, the United Kingdom and Switzerland are in

the lead (according to table 2). Therefore, we will analyze in more detail the Internet users and Social media users in European Region for 2017–2021 years (table 5).

In the United Kingdom in 2021 the number of Internet users over time is 65,32 million (96% of total population); Social media users over time is 53,0 million (77,9% of total population). The number of Internet users in the United Kingdom for the period 2017-2021 increased by 8,4% (from 60,27 to 65,32 million). Urbanization as one of the factors of digitalization and open access to studying in the United Kingdom in 2021 is 84,0%.

TABLE 5.
INTERNET USERS AND SOCIAL MEDIA USERS IN 2017-2021 YEARS. EUROPEAN REGION

Country Name/ Total population in 2021	2017		2020		2021		2021/ 2017
	million	% *	million	%*	million	%*	
United Kingdom/ 68,05 millions							
Internet users over time	60,27	92,0	65,0	96,0	65,32	96	1,084
Social media users over time	42,0	64,0	45,0	66,0	53,0	77,9	1,262
Switzerland/ 8,69 millions							
Internet users over time	7,4	88,0	8,28	96,0	8,42	97,0	1,138
Social media users over time	4,0	48,0	4,5	52,0	7,10	81,8	1,775

Source: Developed based on: Report Global Digital Overview in 2017, 2020 and 2021 years (https://datareportal.com/reports) * – number of users vs total population, %

The number of Social media users in the United Kingdom for the period 2017-2021 increased by 26,2% (from 42,0 to 53,0 million). The number of the Internet users in Switzerland for the period 2017-2021 increased by 13,7% (from 7,4 to 8,42 million); The number of Social media users – increased by 77,5% (from 4,0 to 7,10 million). Urbanization in Switzerland

in 2021 is 74,0%.

The results of analyzes of Internet users and Social media users in the North American region for 2017-2021 years are shown in (table 6).

TABLE 6.
INTERNET USERS AND SOCIAL MEDIA USERS IN 2017–2021 YEARS. NORTH AMERICAN REGION

Country Name / Total population in 2021	2017		2020		2021		2021/ 2017
	million	% *	million	% *	million	% *	
USA/ 332,0 millions							
Internet users over time	286,9	88	288,1	87	298,8	90	1,041
Social media users over time	214	66	230,0	70	240	72,3	1,121

Source: Developed based on: Report Global Digital Overview in 2017, 2020 and 2021 years (https://datareportal.com/reports) * – number of users vs total population, %

The number of the Internet users in North America, the USA for the period 2017-2021 increased in the USA by 4,1% (from 286,9 to 298,8 million). The number of Social media users in the USA for the period 2017-2021 increased by 12,1% (from 214 to 240 million). Urbanization in the USA in 2021 is 82,2%.

The average daily time, that internet users, aged 16 to 64 spend on different kinds of media and devices by Region of the world (Europe and North America) is available in table 7. Regions in table 7 are represented according to QS World University Rankings 2021 (Top-5).

TABLE 7.
DAILY TIME SPENT ON MEDIA IN SOME REGIONS OF THE WORLD IN 2021

Country Name	Time spent using		Percentage of Internet users that use SM for work purposes, %
	Internet (all devices), hours	Social Media, hours	
European Region			
United Kingdom	6,26	1,49	28,7
Switzerland	5,40	1,25	33,8
North America Region			
USA	7,11	2,07	28,6

Source: Developed based on: Report Global Digital Overview in 2021 year (https://datareportal.com/reports)

The authors of this article have provided the analysis of using such media channels as Facebook, Instagram, WhatsApp, Facebook Messenger, LinkedIn, TikTok according to QS University Rankings in 2021 by regions of the world. Overall, the maximum time spent using the Internet (all devices) in 2021 is indicated by such dates:

1. European Region was in the United Kingdom – 6,26 hours;

– North America Region was in the USA – 7,11 hours;

As the audience for online media grows, so the same situation is with the number of platforms. Social media, digital advertising, and increased access to the internet through various devices have shaped trends in media and the market of education surveys. In 2021, the maximum time spent using Social Media, according to regions with Top QS University Rankings indicated by such dates:

– European Region was in the United Kingdom – 1,49 hours;
– North America Region was in the USA – 2,07 hours;

Audience in the field of education and business (students, parents, academic staff, employers, business and scientific partners) use Social Media (for example Facebook/Messenger, Instagram, LinkedIn, TikTok) not only for messages; post/share photos or videos; find funny/entertaining content, but also for keeping up-to-date with news/the world; follow/find information about products/brands. Also, we need to use the internet and Social Media for work and study.

The most-used social media platforms in some Regions of the world are available in table 8. Regions and countries in table 8 are represented according to QS World University Rankings (Top-5) in 2021.

TABLE 8
MOST-USED SOCIAL MEDIA PLATFORMS IN SOME REGIONS OF THE WORLD IN 2021
(NUMBER OF USERS VS TOTAL POPULATION, %)

Country Name	YouTube	Facebook	WhatsApp	Facebook Messenger	Instagram	LinkedIn	Tiktok
European Region							
United Kingdom	79,9	73,0	70,3	59,5	52,5	28,6	22,3
Switzerland	85,2	68,7	86,0	50,2	57,8	34,5	19,7
North America Region							
USA	81,9	73,4	22,5	55,7	56,6	28,0	25,8

Source: Developed based on: Report Global Digital Overview in 2021 (https://datareportal.com/reports)

The follower's number of most-used social media platforms in some Regions of the world are available in tables 9-10. Regions and universities in tables 9-10 are represented according to QS World University Rankings (Top-5) in 2021. The number of followers in European Region for the period December 2021 was very high: University of Oxford – Facebook (4,4 M), Instagram (1,1 M); University of Cambridge – Facebook (2,4 M), Instagram (1,0 M), as shown in table 9.

University of Oxford is leader on Facebook, Instagram, YouTube and Twitter among universities, represented in table 9. University of Oxford shares its content via media platforms: Oxford in apple podcasts, Weibo.com, Medium.com. All universities in UK, according to table 9 use such media platform

as Weibo.com.

The number of followers in **North American Region** for the period December 2021, according to table 10, was very high on *Facebook:* Harvard University – (6,4 M); Stanford University – (1,47 M); Massachusetts Institute of Technology – (1,38 M), as shown in table 24. The number of followers was very high also on *Twitter*: Harvard University, USA – (1,3 M); Massachusetts Institute of Technology, USA – (1,1 M); Stanford University, USA – (877,5 K).

TABLE 9.

THE NUMBER OF UNIVERSITY'S FOLLOWERS ON SOCIAL MEDIA ACCORDING TO
TOP-5 QS WORLD UNIVERSITY RANKINGS IN 2021 IN EUROPEAN REGION

World Ranking	University Name/ Official Website	YouTube	Facebook	Instagram	Twitter	LinkedIn (employees)*
1	University of Oxford, UK https://www.ox.ac.uk/	250 K	4,487,178	1,1 M	784,7 K	773,887 (15,392)
2	ETH Zurich – Swiss Federal Institute of Technology, Switzerland https://ethz.ch/en.html	28,3 K	81,122 K	67,3 K	61,9 K	– (9,469)
3	University of Cambridge, UK https://www.cam.ac.uk/	372 K	2,426,608	1.0 M	649 K	776,028 (14,479)
4	Imperial College London, UK https://www.imperial.ac.uk/	188 K	195,570	99.2 K	148 K	– (13,343)
5	**London's global university (UCL), UK https://www.ucl.ac.uk/**	30,7K	245,564	140K	105,4 K	384,729 (17,588)

Source: Developed by authors based on University's official websites (December 2021) * – number of employees on LinkedIn

TABLE 10.

THE NUMBER OF UNIVERSITY'S FOLLOWERS ON SOCIAL MEDIA ACCORDING TO
TOP-5 QS WORLD UNIVERSITY RANKINGS IN 2021 IN NORTH AMERICAN REGION

World Ranking	University Name/ Official Website	YouTube	Facebook	Instagram	Twitter	LinkedIn (employees)*
1	Massachusetts Institute of Technology (MIT), USA **https://www.mit.edu/**	744 K	1,381,626	374 K	1,1 M	1,050,487 (17,776)
2	Stanford University, USA **https://www.stanford.edu/**	1,58 M	1,478,084	947 K	877,5 K	964,310 (22,910)
3	Harvard University, USA **https://www.harvard.edu/**	1,88 M	6,492,018	1,9 M	1,3 M	1,813,499 (25,583)
4	California Institute of Technology (Caltech), USA **https://www.caltech.edu/**	152 K	376,866	58 K	103,3 K	111,454 (4,482)
5	University of Chicago, USA **https://www.uchicago.edu/**	91,7 K	274,630	133 K	74,5 K	231,340 (13,714)

Source: Developed by authors based on University's official websites (December 2021) * – number of employees on LinkedIn

In today's dynamic environment, leadership and digitalization play an equally important role and are the driving force behind the development of society and education in particular. Universities as major players in the market of educational services focus and demonstrate current trends in society. Universities, students and staff can be the initiators and developers of modern digital technologies (for example, Facebook was founded by students of Harvard in 2004) and further require the introduction of advanced state-of-the-art technologies in the learning process.

The modern learning process includes artificial intelligence, the flexibility of the educational offerings, the transformation of the teaching role and the educational environment's digitalization. Social transformations and universities' new training requirements point to new study modalities, where accessibility, flexibility and mediation of learning in virtual and hybrid environments are prioritized. There is a need to have virtual and hybrid models where face-to-face and virtual sessions are mixed, using e-learning and blended learning systems (b-learning).

Most universities all over the world are faced with obstacles (self-imposed, pedagogical, technical, financial and organizational obstacles, obstacles comparisons) to achieving quality in distance learning during the COVID-19 pandemic and have adopted a system of distance education as an alternative to traditional education.

IV. CONCLUSIONS AND PERSPECTIVES FOR FURTHER RESEARCH

International university rankings have a significant influence on various stakeholders in higher education in many countries. Despite criticisms of world university rankings, such metrics are widely used by students and parents to select institutions and by educational institutions to attract talented students and researchers.

In the current research, we used the data from the QS University Rankings in 2021 by regions of the world (Europe, North America). These regions of the world have their own characteristics, which are reflected in indicators such as status of university (most of them have status «public»); numbers of total students, numbers of international students, numbers of domestic and international staff.

In our opinion, the share of foreign students also shows the level of leadership of the university and region in general.

The education system and learning process always deal with people (students, parents, academic staff, employers, government, non-profits institutions). The leadership activities have been stated as follows: symbol of the group, arbitrating, suggesting, determining objectives, creating an amicable environment, providing security, appreciating, motivating, possessing responsibility, possessing ideological viewpoints.

The development of leadership skills (interpersonal, informational, decisional roles) both among staff and students in such conditions is also regarded as one of the important goals of the educational process.

As we know, dimensions of successful leadership are defining the vision, values and direction; improving conditions for teaching and learning; assignment of roles and responsibilities; redesigning and enriching the curriculum and instructional systems; improving teaching and learning processes; upgrading the quality of educators; building of relationships inside and outside of the educational institutions; selecting and developing smart tools; participating in providing effective solutions to problems; ensuring an orderly and supportive environment.

Building relationships inside and outside of the educational institutions as one of the indicators of successful leadership is very important, especially during the COVID-19 pandemic as the main reason for distance learning. That's why another key issue is the use of modern tools such as the variety of media for building effective communications in education.

The number of users of the Internet and Social networks is determined by such key factors as the economic development of the country and the standard of living, the level of urbanization and cultural features of the society in a particular region.

Experts (Kirubhakaran, 2021) also indicate the future of digital media will evolve as new tools emerge, consumers make new demands, and the quality and accessibility of the technologies improve. The rise of mobile video, virtual reality (VR), augmented reality (AR), and the more refined use of data analytics will all influence the future of digital media. There are key areas of growth that are likely to shape the communication careers of the future. Social media managers, digital media managers, content strategists, and communication specialists often focus on executing communication strategies through digital means including social media messages, blog posts, landing pages, video, and more.

For future research, it is suggested to analyze different elements within the framework of educational programs of leading universities in the world and develop an educational model contextualized to other countries and the training needs of educational professionals, considering the leadership, flexibility and mediation of learning in virtual and hybrid environments competencies demanded in today's society.

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University of Chicago. Official Website https://www.uchicago.edu/

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