



# Investigating COVID-19 Crisis Influence on Universities' Websites Content in Egypt<sup>1</sup>

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## ABSTRACT

*This research primarily targets investigating the COVID –19 crisis impact on the content of private and national universities' websites in Egypt; this target was achieved by employing a qualitative approach and analyzing the content of these universities' websites regarding determined keywords. The number of private and national universities in Egypt reached 23 universities in June 2019 (Information and Decision Support Center System, 2020a), the research sample consists of 17 universities websites randomly selected (approximately 74 %). The research findings revealed moderated fluctuated modifications in identified keywords usages in the examined universities' websites. In most of the examined universities websites, the updates were dated recently; that reflect their interest in being responsive toward the COVID –19 crisis, and developing plans for managing and mitigating the crisis impact. All of the 14 identified keywords were exist in examined universities websites with noted variances in their number of presences and its occurrences/frequencies. The found keywords were rated based on presences on the investigated universities websites, moreover, they ranked based on their occurrences/frequencies of presences. The investigated universities' websites were graded based on presence keywords to the total number of identified keywords (ratio), and the frequencies of all existing keywords on the university website.*

**Key words:** COVID-19 Crisis, Website Content, Content Analysis Approaches, Private and National Universities, Universities Websites in Egypt

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## **1. INTRODUCTION**

The crisis of COVID-19 is not limited to a specific sector; all sectors were impacted with varied range and form (negative and positive), that pointed at the high essentiality of having emergencies and crisis management plans ready to use. COVID-19 became a hot research interest that encourages researchers to investigate its effect in different aspects of life. Among the newly conducted research considering COVID-19 in medical education, (Hilburg, et al., 2020), this research described the variances before and during the crisis. The reported disruption required to transfer to distance learning, virtual tools adoption, and offer training to sector juniors.

Based on Information and Decision Support Center System, (2020b), in June 2019, the private and national universities have 186181 enrolled students. These students are distributed in 23 universities (Information and Decision Support Center System, 2020a). Analyzing the content of 17 private and national universities websites in Egypt came in response to the significant need for studying the changes in universities' websites during the crisis. It has a value-added and benefits whether while assessing the impact on the Higher Education (HE) sector or developing emergencies and crisis management plans.

## **2. RESEARCH AIM AND PROBLEM**

This research target the HE sector, the universities' websites regarding the recent content modifications as reactions to the COVID – 19 crises. It is triggered by the confirmed needs for investigating the effect of the COVID – 19 crises on the HE sector and other sectors as well. Considering 74% of the existent private and national universities is justified due to the considerable portion of the enrolled students and the number of these universities. The main problem is that organizations cannot neglect COVID- 19 influences regardless of their belonged sector. HE is one of the sectors with direct influences on business core operations, where conducting proactive actions is vital. Coming up with the learned lessons and applying the best practices cannot be achieved without evaluating the conducted course of actions that took place. The usage of the content analysis approach was supported by the appropriateness to the research aim.

### **3. LITERATURE REVIEW**

#### **3.1 Higher Education (HE) in Egypt**

The end-user of private HE in Egypt was examined in prior studies. Between these studies, Abd El Halim, (2019) considered the associations between tools selection, adoption intention, and acceptance of computer technology factors issues concerning the Unified Theory of Acceptance and Use of Technology (UTAUT). Such a study was conducted before COVID-19 and in the absence of its changes on user behaviors, intention, selection criteria. In (Abd El Halim, 2019) concluded model, the role of perceived ease of use was determined. Having the fact that the end-user can choose what he/she wants to learn and from where. It was true in the normal environment in the past while during crises it may not completely be applied.

#### **3.2 COVID-19 Impacts on the HE Sector**

Even though the novelty of the COVID-19 pandemic, its significant impact on the medical education sector was studied by (Hilburg et al., 2020). The writers reported that COVID-19 tackled both the organization and delivery of medical education on undergraduate and graduate levels. Thus, adopting distance learning became not an optional issue. Although distance learning makes students and staff members feel alienated and disconnected which affected student's achievement, commitment, besides attrition as stated by (Kennedy & Ferdig , 2018), video conferencing provides one way to connect learners from distance during the COVID-19 crisis (Zhu et al, 2020).

The COVID-19 impact on digital library services in a university has been studied by Mehta & Wang (2020). This study Mehta & Wang, (2020) reported the service usage rise by students and the faculty members and increasing the use of the service more than before. Hendal, (2020) is one of the newest researches that investigated the impact of the COVID-19 crisis on digital resource usage at Kuwait University. The research reported the inadequate student and staff about the library services and resources, the requirement up to date information considering user needs (Hendal, 2020). Keeping sustained communication between tutors and students can be considered as the main problem among the

problems they faced in the period of the COVID-19 crisis (Peterson et al, 2020).

Many, if not all, universities create guidance outlining how emergencies should be handled and resolved in the form of “Emergency Management Plan (EMP),” “Emergency Response Plan,” “Crisis Management Plan,” “Business Continuity Plan (BCP)” and others (Izumi, 2020). Harris, (2020) emphasizes the leadership in schools during COVID -19, taking into consideration some observable education fault lines. Distributed leadership practices, collaborative and networked leadership were examined; it ended by some replications of school leaders through the current set of circumstances. Hodges et al., (2020) differentiated between the pre-planned online learning and Emergency Remote Teaching Environments ERTEs. According to Hodges et al., (2020), ERTEs simply presented on time developed, and tentative instructional manual during a crisis.

Most universities suffer from a lack of experience in handling situations emergencies such as COVID-19 unlike handling other natural disasters. Changing the forms, structures, and methodologies of teaching, science and societal contribution are instances of the expected changes (Izumi, 2020).

Based on Maxwell Library, Bridge water State University (2020) the pandemic resulted in the revolution was not limited to being online in HE; it additionally covered the virtual delivery of academic libraries services. A brainstormed of librarians’ was applied to identify the new requirements due to the pandemic, and ended up with broadcasting the offered services amendments on the library’s home page and introducing a new web page "The Coronavirus and Library Services" Maxwell Library, Bridge water State University, (2020).

Online education on an extremely large scale perspective (Bao, 2020) pointed out that before solving any potential problems; developing contingency plans is significant. Furthermore, online teaching may reason a students’ anxiety that should receive a different handle (Bao, 2020)

In (Sawyer, 2005) people in the environment, technologies, architecture, and layout of the room and the physical objects within and the social and

cultural environment were reported as components of a learning environment in The Cambridge Learning Sciences Handbook. While a rubric for the online course quality was presented by (Xu et al., 2020).

According to Whittle, et al. (2020) tutors who thought that they work productively during distance emergency teaching emphasized the importance of periodically reconsidering inquiry to stay responsive to handy materials. Daily interaction with students during the crisis stressed the revealed issues that may impact students' such as home circumstances, parents' participation/ engagement, and non-academic issues. (Whittle, et al., 2020). Teacher social presence in online learning recognized positive impacts learning as indicated by (Lehman and Conceição, 2010).

Assisting the online learning through the pandemic triggered a group, exceeds a dozen, of the USC Rossier School of Education faculty members working tougher and co-transcribed a report, presented in a form of a chain of tutors inquiries and replies (USC Rossier School of Education, 2020).

#### **4. RESEARCH QUESTIONS**

**Do all the investigated universities stayed at the same level of rapid responses toward the COVID-19 crisis observed in the content of their websites or not?** This is the main research question. The offered response toward this question will be delivered by obtaining and answering the following research questions:

**Research Question1 (RQ1):** What are the ranks of the investigated universities' websites based on the association with COVID-19 and e-learning keywords presence and usages norms?

**Research Question2 (RQ2):** What is /are the most existing and used keywords associated with COVID-19 and e-learning in the investigated universities websites?

**Research Question3 (RQ3):** What are the ranks of the keyword associated with COVID-19 and e-learning keywords based on presence and usage norms in the investigated universities' websites?

## 5. RESEARCH METHODS - DATA COLLECTION PROCESS, DATA ANALYSIS PROCESS, AND SAMPLE SIZE

This qualitative research and summative content analysis is applied to 17 universities websites considering 14 identified keywords through two rounds. As according to summative content analysis, the codes and keywords are defined in two times: before and during conducting the analysis (Hsieh & Shannon, 2005). A differentiation between conventional content analysis, directed content analysis and summative content analysis approach was offered in terms of the research starting activity when to define codes or keywords and the codes or keywords source/ basis (Hsieh & Shannon, 2005). Figure 1 below demonstrates the qualitative content analysis six steps according to (Mayring, 2014)

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Concrete Research Question Relevant to Praxis, Choose Universities	Linking Research Question to Theory (Determine Search Keywords	Update keywords (lectures platform, Interact platform, Online platform	Definition of the Research Design(Content Analysis Method)	Processing of the study, based on keywords	Discussion of the results
	2	3	4	5	
1					

**Figure 1: Qualitative Content Analysis**

**Source:** Mayring, P (2014), Qualitative Content Analysis. Theoretical Foundation, Basic Procedures and Software Solution Klagenfurt, Austria, 2014) Available at: <https://www.ssoar.info/ssoar/handle/document/39517>

The keywords identification activity was begun before the research began; the keywords have been defined mainly according to the researchers' interest. This activity continued throughout the data analysis process (Hsieh & Shannon, 2005). In this research, the first round of keyword determination began with the following nine keywords: *remotely, online access, e-material, e-learning, COVID-19 crisis,*

*electronic resources, virtual, remote access, and e-services.* The second round, and during multiple websites' visits resulted in adding more five keywords: *interact platform, lecture platform, virtual classes, online platform, and apply online.*

The data collection was mainly through multiple visits to the randomly selected universities websites on the World Wide Web, Table 1 below provides a list of the 17 investigated universities and their websites.

**Table 1: The Investigated Universities Names and Websites**

#	University Name	Website
1	6 <sup>th</sup> October	<a href="https://o6u.edu.eg/default.aspx?id=70">https://o6u.edu.eg/default.aspx?id=70</a>
2	October University for Modern Sciences and Arts – MSA University	<a href="https://msa.edu.eg/msauniversity/">https://msa.edu.eg/msauniversity/</a>
3	Misr University for Science & Technology (MUST)	<a href="https://www.must.edu.eg/">https://www.must.edu.eg/</a>
4	Misr International University (MIU)	<a href="http://www.miuegypt.edu.eg/">http://www.miuegypt.edu.eg/</a>
5	Heliopolis University	<a href="https://www.hu.edu.eg/">https://www.hu.edu.eg/</a>
6	The British University In Egypt (BUE)	<a href="https://www.bue.edu.eg/">https://www.bue.edu.eg/</a>
7	Pharos University In Alexandria (PUA)	<a href="https://www.pua.edu.eg/">https://www.pua.edu.eg/</a>
8	Al-Ahram Canadian University	<a href="http://www.acu.edu.eg/en/">http://www.acu.edu.eg/en/</a>
9	Modern University for Technology & Information (MTI)	<a href="http://www.mti.edu.eg/">http://www.mti.edu.eg/</a>
10	Badr University in Cairo	<a href="https://www.buc.edu.eg/en/">https://www.buc.edu.eg/en/</a>
11	Future University in Egypt	<a href="https://www.fue.edu.eg/">https://www.fue.edu.eg/</a>
12	Nahda University	<a href="http://www.nub.edu.eg/">http://www.nub.edu.eg/</a>
13	Sinia University	<a href="http://www.su.edu.eg/">http://www.su.edu.eg/</a>
14	The Arab Open University (AOU)	<a href="http://www.aou.edu.eg/">http://www.aou.edu.eg/</a>
15	Nile University	<a href="https://nu.edu.eg/">https://nu.edu.eg/</a>
16	The German University in Cairo (GUC)	<a href="https://www.guc.edu.eg/">https://www.guc.edu.eg/</a>
17	Egyptian e-Learning University (EELU)	<a href="http://www.eelu.edu.eg/">http://www.eelu.edu.eg/</a>

Source: Ministry of Higher Education and Scientific Research (2020)

Available at: <http://portal.mohe.gov.eg/ar-eg/Pages/private-universities.aspx>

The sample size of this research comprises 17 private and national universities in Egypt. The examined websites were randomly selected.

## 6. RESEARCH CONDUCTED ANALYSIS, RESULTS, AND FINDINGS

The oldest investigated universities were established in 1996, (the first four universities: 6<sup>th</sup> October, MSA, MUST, and MIU), the most recent established universities were Heliopolis, and Egyptian e-Learning in 2009, and 2008 with respect to the order. Cairo and Giza were governorates that have most of the investigated universities (Nine in Cairo, four in Giza while 6th October City, Alexandria, Bani Sweif, and North Sinai have only one university in each. Although the fact that most of the investigated websites updated last June and July, only BUE and AOU universities were updated last May, no clear relationship can be observed between the university website rank and the date of the website last updated. For example, the BUE website has received a top rank meanwhile the same was not applied in the case of AOU, It received a late rank position as will be demonstrated in the following sections of the conducted analysis. The showed website last updated dates reflect the keenness of universities for having up to date websites.

### **Concerning the question of do all investigated universities stayed at the same level of rapid responses toward the COVID-19 crisis observed in the content of their websites or not?**

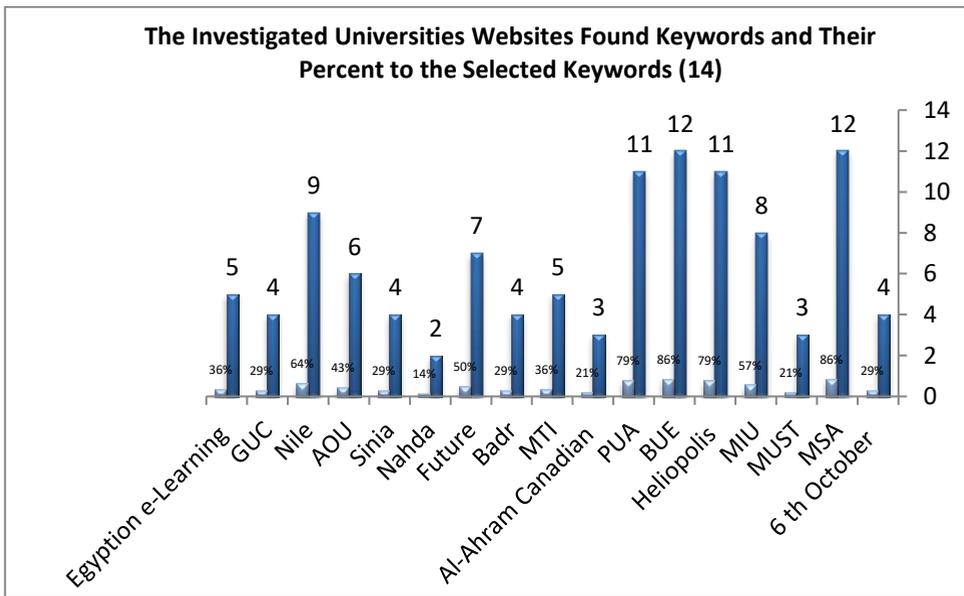
The answer: Not all investigated universities stayed at the same level of rapid responses toward the COVID-19 crisis observed in the content of their websites. More explanations will be provided in the following sections that concerned with answering the three early mentioned research questions.

**RQ1:** What are the ranks of the investigated universities' websites based on the association with COVID-19 and e-learning keywords presence and usages norms?

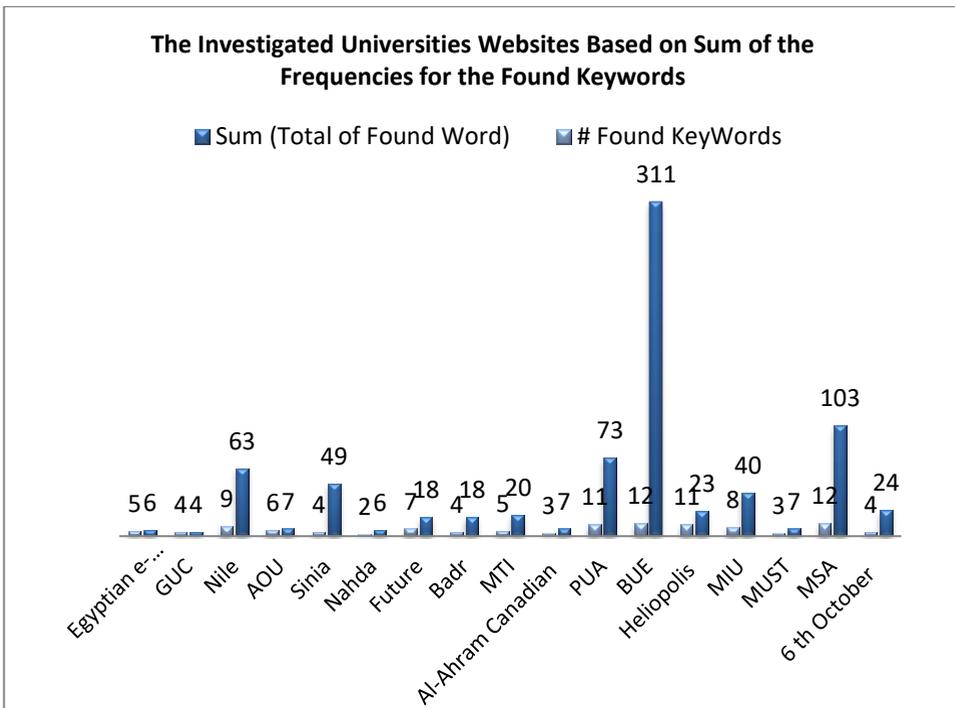
Based on the frequencies and %, the following figures are constructed. The first figure, Figure 2 demonstrates the number of found keywords in the investigated universities' websites, their percent to the total 14 Keywords. As illustrated by the figure BUE and MSA universities websites have the largest number of found keywords (12) with 86% for both; meanwhile, Nahda, MUST, and Al-Ahram Canadian universities

have the least 2, 3, and 3 with percent of 14, 21, and 21 with respect to the order. The rest of the websites found keywords number ranged between 11 to 4 with a percent of 79% to 29%.

The usage norms of the 14 keywords in the investigated universities' websites were displayed in figure 3. Figure 3 below shows the investigated universities' websites based on the sum of the frequencies for the found keywords. In Figure 3, BUE received the highest usage of the 14 keywords in its website by 311 times, followed by MSA with 103 times. The least university website based on its found keywords usage was GUC with only four times, the other universities' websites were between 73 to 6 times.



**Figure 2: The Investigated Universities Websites Found Keywords and Their Percent to the Selected Keywords (14)**



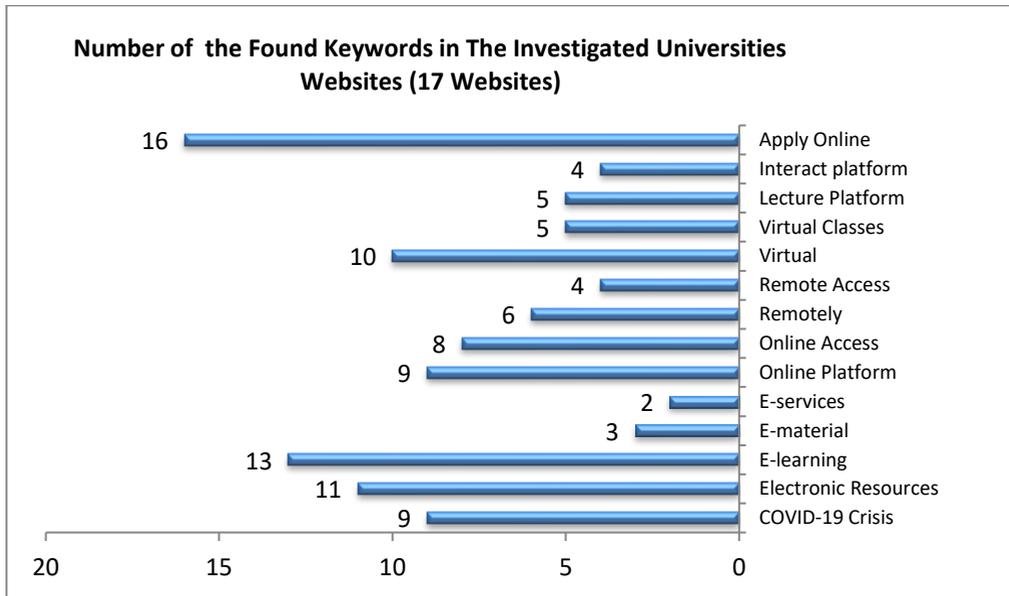
**Figure 3: The Investigated Universities Websites Based on Sum of the Frequencies for the Found Keywords**

**RQ2:** What is /are the most existing and used keywords associated with COVID-19 and e-learning in the investigated universities websites?

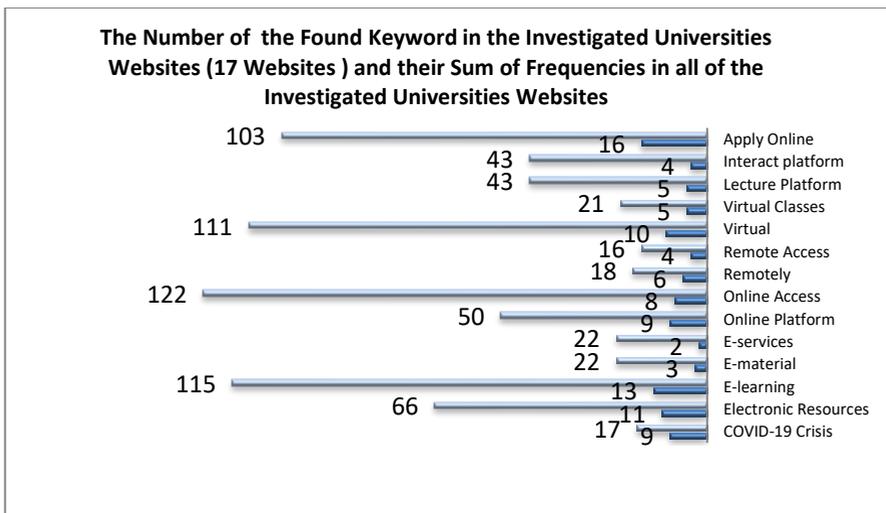
The number of found keywords in the 17 investigated universities websites is showed by Figure 4 below, based on the figure “Apply Online” was the most keyword found in the universities investigated as it found in 16 out of 17 websites. “E-service” is the least keyword found on the same universities investigated with only 2 out of 17. While the other keywords were displayed between 3 to 13.

Keywords ranks based on the number of existence in the investigated universities websites was as following “Apply Online” ranked as number one because it found 103 times in the 16 websites, while the least found keyword in the 17 websites was an “E-service” with 22 times in only two websites. Although that “Apply Online” found in 16 of the 17 websites, the existence of “Online Access” has been exceeded “Apply Online” by 19 times as “online Access” found in only 8 websites, with 122 times. Figure 5 shows the number of the found keyword in the 17 investigated

universities websites, and their usage-the sum of frequencies in all of the investigated universities websites.



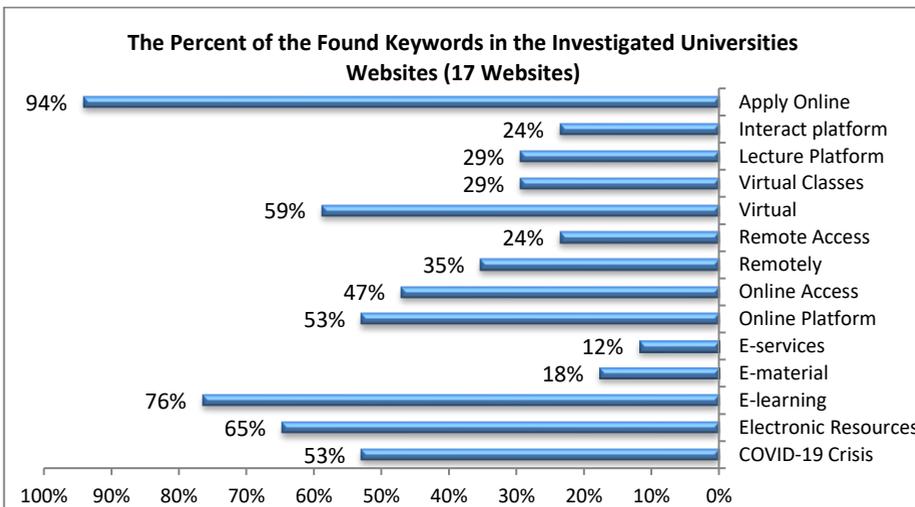
**Figure 4: Number of the Found Keywords in The Investigated Universities Websites (17 Websites)**



**Figure 5: The Number of the Found Keyword in the Investigated Universities Websites (17 Websites ) and their Sum of Frequencies in all of the Investigated Universities Websites**

**RQ3:** What are the ranks of the keyword associated with COVID-19 and e-learning keywords based on presence and usage norms in the investigated universities' websites?

The percent of the found Keywords in the 17 investigated universities websites is displayed in figure 6. "Apply Online" has the largest percent 94% followed by "E- learning" with 76%, the smallest percent was for "E-service" with only 12%.

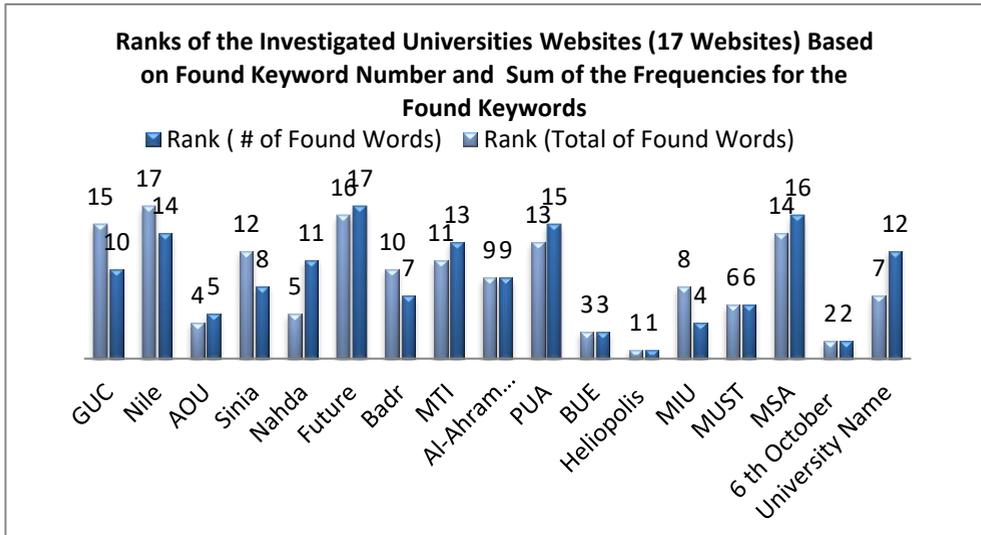


**Figure 6: Percent of the Found Keywords in the Investigated Universities Websites (17 Websites)**

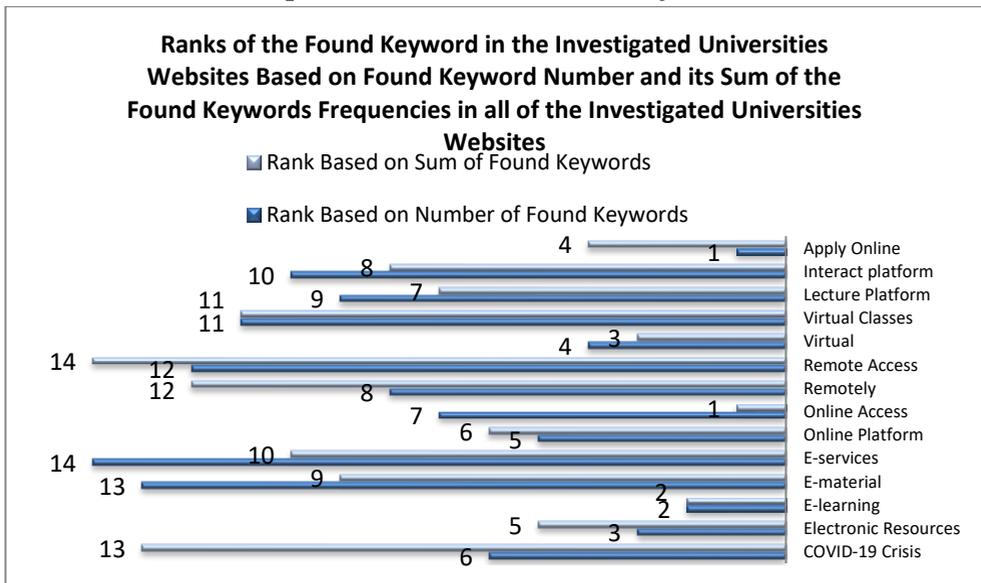
Figure 7 illustrates the ranks of the 17 investigated universities' websites based on the number of keywords found and their usage-sum of the frequencies for the found keywords. As showed in figure 7, BUE ranked as the first website as it has the largest numbers in both the number of found keywords and the sum of the frequencies for the found keywords. On the other hand, Nahda university website ranked in the last position regarding the same parameters- as it was the least university website in the total number of keywords found, and the sum of the frequencies for the found keywords.

Figure 8 shows the found keyword in the investigated universities' websites were ranked based on found Keyword number and its sum of the found keywords frequencies in all of the investigated universities' websites. "Apply Online", and "Online Access" keywords have the first ranks based on receiving the largest keyword found and sum of the found

keywords frequencies in all of the investigated universities' websites in sequence. "E-service" and "Remote Access" have the least keyword ranks regarding the same with the order respect.



**Figure 7: Ranks of the Investigated Universities Websites (17 Websites) Based on Found Keyword Number and Sum of the Frequencies for the Found Keywords**



**Figure 8: Ranks of the Found Keyword in the Investigated Universities Websites Based on Found Keyword Number and its Sum of the Found Keywords Frequencies in all of the Investigated Universities Websites**

To sum up, Table 2 summaries the accumulated conducted analysis outcomes, it shows the norms of the keywords existences and its values across the examined universities' websites listed and displayed on the left-hand side. For each university, the row is ended by the number and the percent of the presences to the total number of identifies keywords (14), then the universities' websites were ranked accordingly. For the keywords (demonstrated in the columns), the count of keyword presences in each university website appeared in the corresponding cross-sectional cell by the end of the keyword column the total of the existed keyword in all universities websites. Applying the same concept of ranking the keywords, the ranks were according to its presences and frequencies of the same as in the examined universities' websites.

Nevertheless, the research revealed fluctuated levels of changes in the content of the websites which can be considered as good initiatives for readiness and dealing plans of such crises. Moreover, assuming that private and national universities normally have more flexibility and decentralization advantages in the decision-making process which positively impacted the courses of action required time and enable smooth processes to take place.

**Table 2: Summary of the Accumulated Conducted Analysis Outcomes**

Established Year	Governorate	Website Last Updated Date	University Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	# Found Key Words	Found Key Words / # of Key Words	Sum (Total of Found Words)	Rank (# of Found Words)	Rank (Total of Found Words)	
				COVID 19 Crisis	Electronic Resources	E-learning	E-material	E-services	Online Platform	Online Access	Remotely	Remote Access	Virtual	Virtual Classes	Lecture Platform	Interact platform	Apply Online						
1	1996	Giza	17/7/2020	6th October		1	17						5				1	4	29%	24	12	7	
2	1996	6th October	19/7/2020	MISA	3	4	13	20	9	10	4		13		1	4	2	12	86%	103	2	2	
3	1996	Giza	5/7/2020	MUST			4	1									2	3	21%	7	16	14	
4	1996	Cairo	15/6/2020	MIU	1	4	7				10			9	1	5		3	8	57%	40	6	6
5	2009	Cairo	5/6/2020	Heliopolis	1	2	3			2		3	3	2	1	2	2	2	11	79%	23	4	8
6	2005	Cairo	1/5/2020	BUE	4	33	33			30	32	7	10	40	10	30	32	50	12	86%	311	1	1
7	2006	Alexandria	18/7/2020	PUA	1	5	15		2	6		2	1	17		5	5	14	11	79%	73	3	3
8	2005	Giza	11/7/2020	Al-Ahram Canadian		3	2										2	3	21%	7	15	13	
9	2005	Cairo	21/6/2020	MTI	1						3			5	7			4	5	36%	20	9	9
10	2006	Cairo	14/06/202	Badr		1	3				13							1	4	29%	18	13	11
11	2006	Cairo	1/6/2020	Future	1	2	4			1	2	1		7					7	50%	18	7	10
12	2006	Bani Sweif	14/7/2020	Nahda			5											1	2	14%	6	17	16
13	2006	North Sinai	17/7/2020	Sinia						1	44			1				3	4	29%	49	11	5
14	2002	Cairo	28/5/2020	AOU	1	2	1	1		1								1	6	43%	7	8	12
15	2006	Cairo	14/7/2020	Nile	4	9	8				8	1	2	12	2			17	9	64%	63	5	4
16	2002	Cairo	19/6/2020	GUC			1			1	1							1	4	29%	4	14	17
17	2008	Giza	15/7/2020	Egyptian e-Learning			1	1	1	1	1							1	5	36%	6	10	15
			# Found Keywords		9	11	13	3	2	9	8	6	4	10	5	5	4	16					
			Found Keywords / # of Universities %		53%	65%	76%	18%	12%	53%	47%	35%	24%	59%	29%	29%	24%	94%					
			Sum of Found Keywords		17	66	115	22	22	50	122	18	16	111	21	43	43	103	769				
			Rank Based on Number of Found Keywords		6	3	2	13	14	5	7	8	12	4	11	9	10	1					
			Rank Based on Sum of Found Keywords		13	5	2	9	10	6	1	12	14	3	11	7	8	4					

## 7-RESEARCH CONCLUSIONS AND DISCUSSION

The examination of the impact of the COVID -19 crisis on the content of 17 private and national universities' websites using the content analysis approach discovered moderated/ reasonable and fluctuated amendments of the identified keywords using norms. The universities' interest in keeping their websites updated during the crisis time was observed. This crisis affected the education system, as explained by (Hilburg et al., 2020), also in this period, distance education had an impact on students and teachers (Kennedy & Ferdig, 2018), No doubt that being responsive and developing well-structured managing and mitigating plans are essential. This is aligned with the fact of most universities developed plans to deal with emergencies as mentioned by (Izumi, 2020). All determined keywords (14) have appeared across the examined universities' websites, no keyword has not appeared. Although the illustrated differences in the number of their presences, and their

frequencies. The found keywords were graded considering their presence on the investigated universities' websites. Additionally, they were rated according to their frequencies of presence. The investigated universities' websites were rated taking into consideration the number of presences keywords to the total number of identified keywords as a ratio, and the sum of the frequencies of all found keywords on the website of the university as well.

To conclude, no sector was not influenced by COVID- 19 crisis yet with different degrees. Such as the examination of COVID- 19 pandemic impacts on a medical education sector by (Hilburg et al., 2020). This is going in the same direction as what was provided by Mehta & Wang (2020), they indicated that services associated with education had a share of change in the COVID- 19 periods. It is not applicable to use the same strategy in all sectors/ situations. As (Bao, 2020) emphasized that online teaching required receiving a different handle as it may reason student anxiety. For instance, Mehta & Wang, (2020) reported students and the faculty members' service usage rise than before.

The COVID- 19 crisis is just turning an alert to the necessity of prioritizing the emergencies and crisis management strategies accordingly. Which takes many forms as explained by (Izumi, 2020) and in Bao,(2020) who prioritized developing contingency plans before solving any potential online education on extremely large scale problems.

The recurring patterns of the emergencies and crisis plan activities: developing, validating, reviewing, updating, and evaluating have to be frequent. The group of universities that have emergencies and crises plans activities developed (proactive) have the least negative impact, they are encouraged to keep this cycle ongoing. On the other hand, the group of universities that have absent emergencies and crisis plans activities are supposed to learn from COVID- 19 crisis, as indicated (Izumi, 2020). Most universities suffer from a lack of experience in handling situations emergencies such as COVID-19. The decision-makers, boards, and educational programs developers in both universities groups are strongly recommended to pay more attention and invest more in capacity building, reviewing and developing the

delivery media of their offered educational programs, and curricula, students' assessments methods, upgrading their information technologies capabilities, infrastructures, and updating their websites/portals contents on a regular base. Henda, (2020) reported the insufficient users about the library services and resources, the requirement up-to-date information bearing in mind user desires. These practices lined up with Maxwell Library, Bridgewater State University, (2020) presented as a pandemic resulted in and new desires, that ended by introducing a new web page in response. Besides, a rubric for the online course quality was provided in (Xu, et al., 2020). Using information technologies and new media becomes mandatory. Zhu et al., (2020) reported the uses of video conferencing as a method to connect learners from distance during the COVID-19.

## **8. RESEARCH LIMITATIONS AND FUTURE WORK DIRECTIONS**

Although the fact that universities in the HE sector showed a reasonable and quick responses towards the COVID-19 crisis through changes in their web observed by the content analyses to the identified related keywords, most of the investigated universities' websites have fluctuated in the measures of the observed changes with a little stability of some of them. This might support lack of emergencies and crisis management plans and /or lack of staff experiences at the same time and this might be a subject of more investigations.

The early provided review on the previous studies; along with the results of the current research results strongly support conducting more studies on these concerns. The current research conclusions focus and assist in answering some questions associated with universities in HE websites during COVID-19 but still more questionable issues exist. Assessing each of the dimensions and main components of the online/electronic learning environment is compulsory by all means. Harris, (2020) considered the online learning as a subset of the core features of HE.

The decision-makers and plans developers are invited to cooperate with researchers by providing their experiences and learned lessons during a crisis. This may shorten the time and effort required from all parties and stakeholders crisis to drawdown a completed guide on the crisis management and plan development as well.

## REFERENCES

- Abd El Halim, H. (2019). Investigating Tools Selection, Adoption Intention, and Acceptance of Computer Technology in Private Higher Education in Egypt: Project Management Software Casual End-User Perspective. *Journal of Alexandria University for Administrative Sciences*, 56(1), 1-20. doi: 10.21608/acj.2019.35097
- Bao, W. (2020). COVID-19 and online teaching in higher education: a case study of Peking University, *Human Behavior and Emerging Technologies*, 2(2), doi: 10.1002/hbe2.191
- Harris, A. (2020). COVID-19 – school leadership in crisis? *Journal of Professional Capital and Community*, ahead-of-print, ahead-of-print. [https://www.emerald.com/insight/content/doi/10.1108/JPC-06-2020-0045/full/pdf?casa\\_token=leoZCWSvTRYAAAAA:M0MTXw4ZFDqPfl9gU52Rl3nkBHevqfZvbYhMrNsrFthtYE2YTAf1PIg5DNSIKZFskzW1phnWM-B5uPX6CjBwQSMhQMBThq2fsWEGJmofHWAsrWrSaz](https://www.emerald.com/insight/content/doi/10.1108/JPC-06-2020-0045/full/pdf?casa_token=leoZCWSvTRYAAAAA:M0MTXw4ZFDqPfl9gU52Rl3nkBHevqfZvbYhMrNsrFthtYE2YTAf1PIg5DNSIKZFskzW1phnWM-B5uPX6CjBwQSMhQMBThq2fsWEGJmofHWAsrWrSaz)
- Hendal, B.A. (2020). Kuwait University faculty's use of electronic resources during the COVID-19 pandemic, *Digital Library Perspectives*, ahead-of-print, ahead-of-print. <https://0810b9gnt-1105-y-https-doiorg.mplbci.ekb .eg/10.1108/DLP-04-2020-0023>
- Hilburg, R.; Patel, N.; Ambruso, S.; Biewald, MA., & Farouk, S. (2020). Medical Education During the COVID-19 Pandemic: Learning From A Distance, *Advances in Chronic Kidney Disease*, doi: <https://doi.org/10.1053/j.ackd.2020.05.017>
- Hodges, C.; Moore, S.; Lockee, B.; Trust, T. & Bond, A. (2020). The difference between emergency remote teaching and online learning, EDUCAUSER view, available at: <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>

- Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277–1288, <https://doi.org/10.1177/1049732305276687>
- Information and Decision Support Center System (2020a). Statistics and Indicators, Information And Statistics. Available at: <https://www.idsc.gov.eg/IDSC/DMS/View.aspx?id=1833&cid=0>
- Information and Decision Support Center System (2020b). Statistics And Indicators, Information And Statistics, Total number of students enrolled in private universities (Student) Available at: <https://www.idsc.gov.eg/IDSC/DMS/View.aspx?id=2334&cid=0>
- Izumi, T.; Sukhwani, V.; Surjan, A. & Shaw, R. (2020), Managing and responding to pandemics in higher educational institutions: initial learning from COVID-19, *International Journal of Disaster Resilience in the Built Environment*, ahead-of-print, ahead-of-print. <https://0810b9gnt-1105-y-https-doi-org.mplbci.ekb.org/10.1108/IJDRBE-06-2020-0054>
- Kennedy, K., & Ferdig, R.E. (Eds.). (2018). *Handbook of Research of K12 Online and Blended Learning (2nd Edition)*. Pittsburgh, PA: Carnegie Mellon University: ETC Press from <https://www.learntechlib.org/p/182993/>
- Lehman, R. M., & Conceicao, S. C. (2010). Creating a Sense of Presence in Online Teaching: How To “Be There” for Distance Learners, San Francisco, CA: Jossey-Bass *Journal of Creative Education*, 7 (5).
- Maxwell Library, Bridge water State University (2020), Coronavirus and Maxwel library, available at: <https://library.bridgew.edu/Coronavirus-and-Library-Services>
- Mayring, P. (2014). *Qualitative Content Analysis. Theoretical Foundation, Basic Procedures and Software Solution* Klagenfurt, Austria, 2014)

Available at: <https://www.ssoar.info/ssoar/handle/document/39517>

Mehta, D., & Wang, X. (2020), COVID-19 and digital library services – a case study of a university’s library, *Digital Library Perspectives*, ahead-of-print, ahead-of-print. <https://0810b9gnt-1105-y-https-doi-org.mplbci.ekb.eg/10.1108/DLP-05-2020-0030>

[Ministry of Higher Education and Scientific Research](#) (2020)

Available at: <http://portal.mohe.gov.eg/ar-eg/Pages/private-universities.aspx>

Peterson, L.; Scharber, C.; Thuesen, A., & Baskin, K. (2020). A rapid response to COVID-19: one district’s pivot from technology integration to distance learning, *Information and Learning Sciences*, 121 (5/6), 461-469. <https://0810b9gnt-1105-y-https-doi-org.mplbci.ekb.eg/10.1108/ILS-04-2020-0131>

Sawyer, R.K. (Ed.) (2005). *Introduction: the new science of learning*, The Cambridge Hand book of the Learning Sciences, 2nded., Cambridge University Press.

USC Rossier School of Education (2020). supporting online learning in a time of pandemic, USC Rossier, available at: <https://rossier.usc.edu/supporting-online-learning-covid-pandemic>

Whittle, C.; Tiwari, S.; Yan, S., & Williams, J. (2020), Emergency remote teaching environment: a conceptual framework for responsive online teaching in crises, *Information and Learning Sciences*, 121 (5/6), 311-319. <https://0810b9gnt-1105-y-https-doi-org.mplbci.ekb.eg/10.1108/ILS-04-2020-0099>

Xu, D.; Li, Q., & Zhou, X. (2020). *Online Course Quality Rubric: A Tool Box*. Online Learning Research Center, University of California, Irvine available at: <https://www.olrc.us/reflecting-on-course-design.html>

Zhu, X.; Chen, B.; Avadhanam, R.M.; Shui, H., & Zhang, R.Z. (2020). Reading and connecting: using social annotation in online classes, *Information and Learning Sciences*, 121 (5/6), 261-271. <https://0810b9gnt-1105-y-https-doi-org.mplbci.ekb.eg/10.1108/ILS-04-2020-0117>

## ملخص البحث باللغة العربية

الهدف الرئيسي- من هذا البحث هو دراسة تأثير أزمة كوفيد-19 على محتوى مواقع الجامعات الخاصة والأهلية في مصر؛ تم تحقيق هذا الهدف من خلال استخدام المنهج النوعي وتحليل محتوى مواقع تلك الجامعات فيما يتعلق بكلمات مفتاحية محددة. بلغ عدد الجامعات الخاصة والأهلية في مصر- 23 جامعة في يونيو 2019 (نظام مركز المعلومات ودعم اتخاذ القرار ، 2020 أ) وتتكون عينة البحث من 17 موقع الجامعات خاصة وأهلية تم اختيارها عشوائيًا (حوالي 74%). أظهرت نتائج البحث التعديلات المعتدلة في استخدامات الكلمات المحددة بمواقع الجامعات التي تم فحصها. في معظم مواقع الجامعات التي تم فحصها ، تم تأريخ التحديثات مؤخرًا مما يعكس إهتمامهم بالإستجابة لأزمة كوفيد-19 ووضع خطط لإدارة وتخفيف تأثير الأزمة. ظهرت جميع الكلمات المحددة الـ 14 بمواقع الجامعات التي تم فحصها مع وجود اختلافات ملحوظة في عددها و تكرار وجودها وحدوثها. تم تصنيف الكلمات المحددة بناءً على التواجد على مواقع الجامعات التي تم التحقيق فيها، علاوة على ذلك ، تم تصنيفها بناءً على تكرار/ تواتر وجودها.تم تصنيف مواقع الجامعات التي تم فحصها بناءً على الكلمات المفتاحية الموجودة إلى العدد الإجمالي للكلمات المحددة (النسبة) و بناء على تكرار/ تواتر تواجدها لجميع الكلمات المحددة بموقع الجامعة.

**الكلمات المفتاحية:** أزمة كوفيد-19، محتوى الموقع الإلكتروني، منهج تحليل المحتوى، الجامعات الخاصة والأهلية، مواقع الجامعات في مصر

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