

## The role of digital technology in tackling the Corona epidemic “Covid19” – the cases of some countries-

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### Abstract :

*The study aims to define digital technology and highlight its contribution in the promotion of preventive measures to counteract the pandemic. A series of successful international experiences in tackling the epidemic and getting out of the crisis with the least damage, using digital technologies means that are used in various areas;*

*The study establish that the Corona pandemic had imposed a friendship between man and technology, since imposing the quarantine measures, social distancing have resorted to the use of digital technology in order to carry on performing some of the necessary activities, which will strengthen the virtual world.*

**Keywords:** Technology, digital technology, e-commerce, e-learning, corona virus

**Jel Classification Codes :** F10, , I1, I2, L63, L86

### الملخص:

تهدف الدراسة إلى تعريف مفهوم التكنولوجيا الرقمية وإبراز مساهمتها في تعزيز التدابير الوقائية لمواجهة الوباء، مع الإشارة إلى مجموعة من التجارب الدولية الناجحة في مواجهة الوباء والخروج من الأزمة بأقل الأضرار، باستخدام الوسائل التكنولوجية الرقمية في مختلف المجالات ؛ وقد أثبتت الدراسة أن جائحة كورونا قد فرضت صداقة بين الإنسان والتكنولوجيا ، فمنذ فرض إجراءات الحجر الصحي ، استوجب التباعد الاجتماعي استخدام التكنولوجيا الرقمية من أجل القيام ببعض الأنشطة الضرورية التي من شأنها تعزيز العالم الافتراضي.

**الكلمات المفتاح:** تكنولوجيا ، تكنولوجيا رقمية ، تجارة إلكترونية ، تعليم إلكتروني ، فيروس كورونا

**تصنيف JEL:** F10, , I1, I2, L63, L86

## 1. Introduction.

Since the mid-twentieth century, the world has entered a new era called the information era or the digital era, and thus for individuals, institutions, and societies in general to benefit from these modern technologies and technological advances, they must comprehend the evolution and the fundamentals of this modern era.

With the epidemic spreading, digital technology has gained strategic importance, as, in order to cope with this global crisis which has imposed a social distancing strategy along with its consequent requirements, such as tele-working and study from home, individuals and institutions have had to switch to the digital world and its electronic services. Therefore, engagement in the digital world is no longer an option but an inevitable necessity to respond to emergencies. Previously linked to espionage and individual privacy violations, the Coronas crisis has changed its perception; it has revealed its advantages, improved its image and strengthened its importance in tackling this epidemic.

In order to counter this global epidemic, every country has tried and continues to try to do so by putting science and technology at the heart of the virus confrontation strategy. China was the first country to experience this given it was the first country where the virus unfolded; it has opened a vast window to deal with the epidemic, relying on digital technology; the rest of the country must follow the example of China's experience to overcome the virus and get out of this health crisis with minimal damages.

### **The Problematic:**

How has digital technology contributed to China's success in tackling to the new Corona virus, and have other countries followed suit in responding to the epidemic or alleviating its burden?

**Study hypothesis:** China and many countries in the world have managed to cope with or even alleviate the Corona epidemic by an optimal exploitation of their technological potential in various fields.

**Importance of the study:** The importance of this study stems from the strategic importance of digital technology in light of the epidemic that has imposed on the whole world to move towards the digital economy.

**Study Objectives:** This study aims to: Learn about digital technology and its most important requirements; - Learn about the most important uses of digital technology, especially in light of the Corona epidemic; Learn about the ways in which some countries have succeeded in addressing the pandemic by using digital communication technology.

## **2. Digital technology and its uses under the new Corona virus:**

### **2.1. Digital technology:**

#### **a. The definition:**

- **Technology:** The term technology is originally a Greek word with two syllables: Techno means art or skill and logy mean science or study, namely science of skill, or science of technique. (Ben nafilla, 2018, p176)

From a terminological point of view, the technology is a science applications for solving practical problems. It was defined as the practical application of cognitive theories in the areas of daily life, in order to benefit from and invest them. (Ben nafilla, 2018, p176)

- **Digital technology:** it is a technology by which different information, whether data or inputs in the form of electronic signals, are transmitted between the world's continents, without being affected by the length of the distance, as well as its resilience to interference and jamming between waves of different sources. It also ensures the safety and the privacy of that information, and such electronic signals carry data in the form of writings, text, graphics, images, video footage and sounds; it integrate and transfer them from one device to another, and the characteristics of digital electronic signals can also be converted from analogical signals to digital signals and vice versa. (Menasria and Gasmia, 2018, p13)

**b. Its requirements:** Digital technology requires a range of requirements, the most important of which are:

- **The Internet network:** the internet is the largest computer company in the world, made up of a micro-networks' series, in which information is conducted from and to any place in the world. These networks are linked to each other through a range of informatics equipments. It allows information to be passed in an easy and economical way to and from anywhere on the globe. According to Bill Gates, the C.E.O of Microsoft Corporation, the Internet should be seen as an acknowledged matter and the institutions that adopt Internet's technology will be viable. ( ababsa, 2016, p350)

- **Computer devices:** Electronic devices with the ability to receive, process and store different data over multimedia; it therefore has two essential components that are indispensable: Technology (communication devices, storage media...) Software (operating systems( Oses) and software...)

- **Smart phones and Smart devices:** The smartphone is the phone that receives audio and video calls and provides internet browsing features, enables email and social media sites, while the smart devices (tablet) are the evolution of the laptop and the difference is that the tablet provides the screen writing feature with a special pen or finger, it is multifunctional, effective, and mobile.

## 2.2. Type of digital technology Means:

**a.Short Message Service SMS:** SMS allows sending and receiving of written messages between phones; used especially by postal, banking and public telecommunications.

**b. Electronic payment methods:** They include bank cards, smart cards and electronic money.

### c. Different applications:

– **Zoom application:** This application is suitable for group meetings, or family gathering and each can share their screen image at any time.

– **Netflix application:** Netflix is one of the most popular applications under home quarantine; it is a specialized application for providing live streaming, video-on-demand;

– **Tiktok Application:** An application that allows short videos to be uploaded and shared with friends, it's much like Facebook, but the main content that friends share is not posts but videos.

– **Google Duo application:** An application that provides video calls, running on Android and Ios smartphones, tablets, computers, and Smart screens.

**d. Artificial Intelligence and Robots:** Critical crises and situations often lead to new and even strange innovations and inventions. As the Corona epidemic is spreading, data analysis, artificial intelligence, and robots have become prominent in the fight against the virus. In order to detect drugs and vaccines, assess the extent of the virus's spread, forecast how the disease develops and spreads, data and artificial intelligence are used. Robots, however, help medical teams perform their activities remotely and more safely.

**e. Social Media:** A variety of web-linked sites that allow people to communicate around the world, and each site has characteristics that distinguish. The most important social media sites are:

**Facebook:** It is considered as the most popular and used site ever, easy and streamlined to handle, is based on people sharing their life details with friends. (Rouse, 2020)

**Twitter:** A free social-network blogging service that allows registered members to broadcast short posts called tweets using multiple platforms and devices. Tweets can be sent via cell phone text messages, desktop client, or by posting on twitter.com website. It is the second most popular social media after Facebook.

**Instagram:** Used to take, edit, and share photos and videos, it's intended to share photos and videos from smartphones; a person can post a photo or video, followers of that person can see the post, and the person will see the posts of others who follow him.

**YouTube:** It is a website that allows users to upload, share, and comment on video recordings free of charge; it is used especially for publishing movies, scientific documentaries, educational and humorous video...etc.

**Linked in:** A social networking site specifically designed for the business community; and the purpose of this website is to allow registered members to create and consolidate networks of people they know and trust professionally. ( Rouse, 2020)

### 2.3. The advantages and disadvantages of digital technologies:

#### a. The advantages:

– **Time saving:** Digital technology makes it possible to optimize time and effort, and what used to take so long to accomplish in the past, it need now just a little time.

**The low cost:** One of the main objectives of technology is to make different ways and requirements of life cheaper and easier for people, as many machines with great interest are available at an affordable price for many people now.

– **Encouraging innovation:** Technology has led to the development of modernization in many areas, whether in medicine, agriculture or electronics.

– **Improving and accelerating financial transactions:** With digital technology, individuals no longer have to wait in a long line in front of banks and other institutions to pay services' bills.

- **Contribution to disease control:** This is through the development of antibiotics in so-called biomedical technology, as well as the contribution of modern medical devices in the areas of cardiography and radiography to the diagnosis of diseases, along with the introduction of digital technology in the performing of complex and accurate surgical operations, in addition to the technology of the drug industry, which has greatly helped to heal intractable situations.

– **Facilitating scientific research tasks:** The Internet, for example, provides an accessible source for everyone to get the information they want.

– **Facilitating communication:** Due to the emergence of technologies and applications adapted to global technology systems, the modern communications media of mobile devices and their applications have made this communication as easy as possible.

**b. The disadvantages:** Although digital technology has many advantages and positive aspects that cannot be ignored, it also has its disadvantages:

– Threat to people's safety: Through the harmful effects of X-ray radiation through many devices, technology can make unsafe many devices that humans are accustomed to use.

– **The negative impacts on social life:** Technology can also be addictive, resulting in the loss of ability to gain much real life experience.

– **Impact on employment and economy:** One of the devastating effects of technology is that it enshrines the replacement of many jobs through the expansion of machine use, thus eliminating many human jobs and resulting in high unemployment rates.

### 2.4. Digital technology uses in the context of the Corona epidemic:

#### a. Introduction to the Corona epidemic:

- **The definition of the Corona virus (COVID-19):** Corona virus (COVID-19) appeared in December 2019 in Wuhan, capital of China's Hubei Province, and this highly contagious disease is currently spreading around the world, with a daily increase in the number of affected countries, confirmed cases and infection-related deaths. Updated data are published on a daily basis on World Health Organization websites. The virus is transmitted from one person to another by cough or exhalation droplets from infected people, touching surfaces or splinters contaminated with droplets and then touching the eye, nose or mouth. The most common symptoms are fever, dry cough, exhaustion, respiratory distress, throat, headache, and myalgia or arthralgias. The less common symptoms, however, are diarrhea and vomiting. (ECDC, 2020, p2)

#### - Strategies to contain the epidemic:

Many countries have managed to contain the sudden and rapid spread of the virus by following several common strategies; the most important of them are:

-**The adoption of preventive measures:** As Corona virus is one of the most deadly and aggressive and most widespread viruses, several measures should be taken to prevent it, such as continuous hands-washing, wearing masks when leaving home, avoiding large gatherings...etc.

**-Intensive testing:** Early diagnosis is the first factor in the response to the virus, no decisions or actions can be taken without knowing the number of people infected.

**-Quarantine measures:** A strategy that is also very important in countering the corona virus and infectious diseases in general, because patient quarantine measures not only prevent the virus from spreading, but also help to detect potential new cases, which may be in the early stages.

**-Readiness and good behavior:** Acting quickly and wisely is one of the main reasons for containing the disease, and preventing the contagion among individuals.

**b. The most important uses of digital technology under the Corona epidemic:**

– **the field of health and medicine:** Digital technology has been employed in the field of health and telemedicine, with the aim of raising the health of remote and rural populations, in order to reduce costs for treatment and travel, and this initiative met a great approval and popularity in the context of the Corona epidemic and the necessity to implement quarantine and social distancing measures. Digital technology also contributes to the exchange of knowledge and experience among the various medical centers around the world, through visual scientific and medical conferences and linking remote hospitals and health centers to a network that enables doctors to diagnose diseases through sharing images, reports, and medical advice in the complex pathologic cases.

- **E-commerce and e-shopping:** E-administration can be defined as: "The administrative process based on the distinct potential of the Internet and business networks in planning, organizing, directing, and controlling the resources and capabilities of the enterprise, and others without limits to achieve its objectives". (Kaffi, 2011, p47)

Trade around the world has deteriorated and stagnated by the outbreak of the Coronus epidemic, with all countries and governments paying attention to protections that require necessary safety standards demanding social distancing between individuals; that is why Interest in e-commerce in the virtual world has increased. According to the Electronic Commerce Expandcart Platform, recent US government data on online shopping and the impact of the Corona virus on e-commerce and commerce in general have shown that it is expected to increase the rate of online commerce this year to 12% from the previous year based on a preliminary statistic, As the virus's impact on the world evolves, this is why it is expected to increase dramatically. (Al-Habtti,2020) Thus, e-commerce can be seen as a glimmer of hope for many traders and governments, and the Coruna pandemic has therefore been a gateway to a new crossroad in e-commerce.

- **Distance learning:** It is also called e-learning or online learning, and is one of the most important concepts and techniques of modern education at all levels, and this type of education is an important element of the cognitive economy. It is worth noting that distance education does not mean teaching curricula and storing them on CDs. Meanwhile, The essence of distance learning is interactive mode, it require having mutual discussions between students on the one hand and interaction between the student and the teacher on the other, such as Video Conference or Live conference, or teachers and specialists record and place a number of lectures on a particular website..

The importance of this type of education is as follows: (Nguyen, 2015, p310)

- Its effectiveness in teaching students;
- Used as a professional development;
- Reducing the high costs of traditional education;
- The possibility of providing education to anyone without exception.

The health crisis currently being witnessed in the world may threaten education with a massive crisis, with implications for a considerable period of time; even if the virus were to decline, as of March 28, 2020, the COVID-19 pandemic had stop more than 1.6 billion children and young people from attending schools in 161 countries, roughly 80% of the world's students enrolled in school. (Saavedra, 2020)

After the new Corona epidemic of "COVID 19" swept through time and spatial barriers, many governments called for the use of digital technology in education or Internet-based "distance learning". After many countries closed schools, institutes, and universities to contain the pandemic, the education of more than 500 million children and young people will be disrupted, according to

UNESCO.(Zayed, 2020) Digital technology has offered essential choices in education and higher education by developing innovative curricula, courses, and alternative courses of education process; it has been met a good acceptance, despite the critics and many difficulties that stand in this new approach to education.

A range of applications have been created, the most important of which is the Moodle platform, which is based on the design and electronic correction of courses, homework and tests, as well as communication with students through a virtual environment. And **Google Classroom** application, which makes it easy to communicate both inside and outside of school as well as the **Seesaw application** which is a digital application that helps students document and register what they learn at school with teachers, parents, classmates, even around the world, in addition to the **Mindspark application**, based on an adaptive online learning system, it helps students practice and learn mathematics.

## **2.5. The importance of digital technology in the epidemic context:**

### **a. Changing consumer behavior:** (Nermin Ali, 2020)

Corporations that have most of their interest and energy in the past years in trying to change consumer behavior and draw attention to the advantages of the digital world no longer need to do all this today, especially with regard to purchases, orders and electronic interaction; because Corona virus took this on immediately after it appeared, turning consumers' attention to electronic services and obliging people to search and invest in it, since there was a big shift in search behavior based on rising fears about the virus and increasing the seating period in front of small screens, so health and sterilization topped the research list, and attention was focused on five main categories: shopping, cleaning, health, entertainment and education.

### **b. Life preservation:**( Nermin Ali, 2020)

The advantages of technology are once again demonstrated by its importance and key role in producing vital equipment that are difficult to obtain through traditional manufacturing methods. The coronavirus has not only changed the methods of shopping and education, but also the methods of production and service. A digital transformation technology has addressed the problems that hospitals have faced under the current crisis because the breathing tube valves for life support devices were not available in intensive care. As suppliers have stopped producing spare parts for the current time, the Italian company of Isinnova, specialized in developing products, immediately used 3D printing and created a prototype valve that proved effective after testing it on patients in the middle of this month. The same company has applied the last few days 3D printing to an emergency industrial breathing mask.

**c. The process of implementing e-administration in public and private institutions:** Digital technology undoubtedly contributes significantly to the improvement and acceleration of administrative, commercial, marketing and other processes; thus, all Governments are moving toward e-government implementation, many of which have made important steps toward e-transformation; But there are still those who are still far from implementing such administration due to weak infrastructure and the hesitation of the officials and employees in the institutions may be a result of their weak knowledge in this field.

Nevertheless , with the global epidemic spreading of Corona, e-administration became an inevitable necessity, as ICT has the strength to force a change in business and management patterns. Thus, the Corona or Covid19 could be seen as a crossing bridge toward the application of electronic administration in all institutions and bodies as the best solution currently available under these conditions in order to carry on.

**d. Alleviating the burden of home quarantine:** With the epidemic spreading and most governments enforcing home quarantine, digital technology and social media have become the safe haven for people to communicate with family and friends, as well as to get news and statistics on the virus; there are also those who consider them a means of entertainment.

## **2. international experiences in addressing the epidemic based it on digital technology :**

### **2.1.China's experience :**

With the amazing Technological development has impressed the world ,the first Corona focus in the response to the epidemic and it has become the first survivor of this flood in record time.However it has Become the largest Integrated technology platform for the defence of humanity in the face of the Corona crisis. China is one of the most virus producing countries with the country registering 80,000 infections and more than 3000 dead by March 16 2020.But the number of daily casualties has decreased significantly.

Modern technology has contributed to the fight against Corona virus in China weird it was able to contain The disease in the record time if we take into account are the large population through the use Of digital technology in all areas and fields.

#### **a.Distance education** : ( UNESCO, 2020)

Nearly 200 million Primary and Secondly students in China began their new semester in 19th of February by distance, however China after all schools were disrupted by the spread of coronavirus in the country, Begun The experience of online synchronization Learning, permeable in human history.

In the same context More than 24,000 online courses were provided for University students and 22 licensed online educational platforms have been launched, most of them are managed by a artificial intelligence technology in order to provide free lessons for primary and secondary students.

#### **b.In the field of health :**

China has taken advantage of digital technology to the extreme in order to reduce the spread of the virus and conduct medical and other examinations, as evidenced by :

- **Near\_contact detection application** : It is an application That detects the possibility of identifying the risk of contracting coronavirus,And tells its users if they are close to someone who is infected or suspected of being infected With coronavirus, then People who are classified are advised to stay at home and report to local health authorities.

To develop the application, government agencies Technology group have Co operated as well as supporting Data provided by the health sector and government transportation according to "SHIKHENWA" official news agency, so this application is powerful tool that shows the power of data hey when used for the common public. Close contact includes both people who are together at nearly distance in one classroom or living in one house, and the medical staff and the members of the same family,or other people who deal directly with the injured and provide care to injured persons and passengers in various means of transportation in the presence of an injured person.( BBC Arabic News; 2020).

- Accurate monitoring Of geographic coordinates and signal data** : In order to ensure that the quarantine persons are committed and not escaped, the geographical coordinates of each person Who has been asked to adhere to quarantine are mentioned. This software sends alerts confidentially and automatically when Reporting any isolation by pass to prevent people from roaming and is relying on a color\_ coded health classification system that can detect millions of people daily.On the other hand, this software also monitors friction between people to inform any citizen about the injury of a friend or relative who has previously contacted him through thermal graphics. In return, The Chinese government telecommunications companies were provided with signal data, which helps to understand the behavior and behavior of citizens to determine their movements and whereabouts, added to those accompanying them .( Bahia Halawi, 2020)

In addition to several other Techniques adopted by China to reduce covid 19 such as patients wearing smart bracelets that contain sensors synchronized with the artificial intelligence platform for quick identification of cases.

#### **c- In the Economic sphere :**

Although the coronavirus has exhausted The Chinese economy, it has effects, even If it could be short\_term on economic growth ,but in return it created opportunities to the march towards the digital economy and it is illustrated by :

- Electronic payment methods** : The Corona virus has highlighted the critical importance of the electronic payment service as it contributes in one way or another to reducing the contact of people

which is the main cause of the spread of the virus. The electronic payment methods that have spread widely in recent years came to provide quick solution for people who live in areas where the virus is spreading. However electronic Payment would contribute to limiting the spread of Corona, given that people will not have to deal with each other with cash notes that could be contained the virus. Internet users have come to depend on services such as "Google pay" "Apple Pay" and "Sinmo" on smartphones to complete their financial transactions without the need for banknotes. (skynews arabia,2020)

The "wechat" wallet has also been developed and is a payment function for customers where users can complete the payment process quickly via smartphones, users only need a bank card for a wallet and " we chat" and the required information is inserted, then the wallet for " we chat " can be used whenever they reveal what they wanted . ( Mengmeny Rong, 2016)

**- Trade and electronic marketing :** The epidemic has created new opportunities for the development of the digital economy , the latter, which can be great help in employment, as jobs in the digital economy absorbed a large number of workers , and industries in their extension and related fields became the main force of Labor absorption . However during the period of fighting the epidemic in China and the emergence of new forms of digital economy, such as online shopping and ordering ready meals online and entertainment, this led to the to entertainment of new jobs and the new employment methods.

## 2.2. South Korea :

South Korea has been able to efficiently use artificial intelligence to control the coronavirus, as the World Health Organization considers it a successful experiment that states should emulate .As the director\_general of the organization "Tidros Adhanom Guibrissus " said on 18, 2020 that Korea faced a large spread of the virus among its citizens, but it was able quickly to control the situation, relying on it for knowledge and community participation , and circulate information transparently and develop effective virus detection tests.( South korea's experience in confronting the coronavirus)

At first the country was very prepared for the Corona epidemic , as it had previously been exposed to an outbreak of "sars" and " Elmers" ,the main step it tooks at that time was the tremendous expansion of the capacity to conduct examinations by establishing wide network that includes more than 600 facilities and 43 mobile centers. once the emergence of the new Corona ,South Korea launched its plan that relies on testing, tracking, and containment ,and by the middle of March are more than 270,000 people had been tested, which helped the government stop the spread of the epidemic early. (Al Ain News, 30/4/2020)

Korea manages the crisis of the Corona outbreak through absolute transparency, open media, the application of general prevention measures and the use of technology and data in a permanent and innovative way ,as it is a miracle of East Asian countries in the filed of technology as it is considered before it to export electronic devices to all parts of the world.

**a. Distance Education field :** Fearing that the epidemic will spread further in South Korea, the latter decided to replace the classroom over the Internet with traditional classes, and with the escalation of new coronavirus crisis,12 universities in "Senol" decided to distance the campus from the effects of the new Corona virus through distance learning during the first two weeks of the start of the new semester.In this regard,the "Yonsei" University announced the end of February, it will suspend the lectures face to face until 28 March,and will offer all the indirect lectures will be given via the Internet,and the woman's University of the "Eihvaa" has said that will provide remote lectures to students during the first two weeks of the new semester. (AlAin News, 29/2/2020)

The strong technological infrastructure that South Korea possesses has facilitated the spread of distance education.As it has a structure that is considered the strongest internet speeds in the world and internet services are available even in real areas, which made the situation favorable for the prosperity of this type of education.

**b.The Health Field:**



Unlike China, which primarily adopted isolation measures, South Korea has adopted available model for making information and examinations available, however, South Korea tested about 10,000 people a day, which means that in two days, it tested more people than the United States in more than a month. This helped early monitoring of patients.

In order to quickly detect the company of "Seegene" developed a rapid test to detect the virus through the exploitation of algorithms and computed data. The test depends on a group of bottles of chymical solutions with special materials that interact with samples taken from citizens in the event of a virus, instead of the manual method by which medical teams make smears and then analyze them. This device has an absorbed robot arm that is able to pull the sample and mix it with solution fluids to ensure that the virus is present or not in no more than 4 hours. This enabled the state to conduct testing for about 1 million patients in record time. (European union\_ reports and studies, a south korea's experience in confronting the Corona virus). (European Union, 15/ 4/ 2020)

In order to track people who refuse to comply with the quarantine, South Korea is used electronic bracelets, where both **Apple** and **Google** announced an unprecedented cooperation between them to take advantage of smartphone technology in the going battle against Corona.

In contrast to the testing tools and tracking methods used, South Korea plans to expand the "Smart City" data based and compel violators to quarantine the tracking bracelets.

**c. Economic filed :** According to a report, by global data research, the volume of electronic commerce accounted for nearly 35 trillion Dollars in global sales in 2019. At a time when smart phones have become more prevalent, even in most underdeveloped countries, also banks are also moving towards closing their branches in favor of a full digital transformation and the same report made clear that South Korea is considered the most prominent Asian to shift towards abandoning traditional payment methods. As it possesses the necessary infrastructure, it spends approximately 6% of the total local production on electronic Commerce. The Report indicated that more than half of the 1600 bank branches no longer accept cash deposits. (Ali al-Fadli, 2/ 2/ 2020).

### **2.3. Emirates experience :**

In light of the global spread of corona virus, the UAE has taken many measures to limit the spread of the virus. On the one hand and to continue various economic, knowledge and social activities, relying on this on modern technology. So it took a set of effective measures, using modern technology, to deal with the spread of the coronavirus, and to preserve the continuation of professional life in order to improve the economy from the inevitable vibrations caused by the spread of the epidemic in all countries of the world.

**a. In the field of distance education :** In order to prevent the disruption of work or study, the UAE relied on virtual schools and universities (distance education). More than one 1,2 million students joined the virtual education system and students from various schools and universities in the country as the UAE has one of the most advanced and smart learning systems in the region, which embraces many vital projects and initiatives for distance learning.

The ruler of Dubai said that schools have stopped, But education will not stop and we are the country most prepared for smart learning, confirms that the educational process in the Emirates schools is continuing and with the most efficiency, even in light of the difficult conditions in the country. The reason for the success of the distance education process in the UAE is because the latter has a technological infrastructure among The most advanced in the world and its smart education system is the best in region, and more than 1,2 million Students from various schools and universities in the country benefits from the virtual education system in UAE and for the success of the exexperiment. (middle-east online, 25/3/2020).

### **b. In Economic Sphere :**

**-Distance Workin:** In light of the repercussions of the coronavirus, provided by the UAE, a remote work environment allows employees to produce and work efficiently and effectively while ensuring their safety, in this contest, the emirate of Dubai launched the smart employee application, which provides access to many personal affairs services, whether during the presence at

the work place or outside it ,and it is relied upon to log in and out at the beginning and end of the daily working hours instead of the fingerprint system That has been suspended in the framework of the preventive measures applied in all government facilities since the emergence of the new coronavirus.

**- The banking sector and means of payment:** The UAE banking institutions have implemented several measures in the framework of addressing the coronavirus relying on it on digital technology. Among these measures: (Elbaian the Emirates, 5/ 5/ 2020)

- Providing banking facilities for the economic sectors and small and medium, sized adding it to individuals, granting exemptions, post poning dues and other facilities;  
- the banks operating in the country decided to implement applications to complete the transactions remotely;

- and launch the service of economic licenses in full Through the "Tam" system;

- the "Adonoc" distribution system then made available a set of smart payment options without touching in all its stations in order to preserve the safety of their customers and help them to adhere to the practices of social separation.

**- Electronic Trade :** In light of the outbreak of the COVID-19 epidemic,the demand for electronic shopping increased among consumers in the UAE, and thus this would enhance electronic Commerce in the UAE in general,and specialized studies indicate that is on its way to reaching a new level.

The drive of consumers in the UAE to avoid the spread of the coronavirus, according to the state's tendencies, has prompted online purchases to rise by a 500% during the last March.According to official estimates, and at the first quarter level, specifically from the end of March of this year since the global spread of the virus crisis .The percentage of electronic purchases in the country increased by 300% according to preliminary estimates of the ministry of economy in the country, the online stores increased to 52 online stores approved under the current circumstances and increased fears of the spread of the virus.

Also, governmental measures also enable the transformation of shopping centers into virtual centers, allowing their customers to roam between goods and specify what was needed to reach them what they needed.

**c- In the health filed:** In the health filed and like the other files do UAE continued rich in its efforts and devoted its various material and human capacities since the emergence of the virus and Duchess buyer launching the largest smarter solutions to prevent and respond to the virus and the most important methods and applications that have been launched in this file are :

**- Implementation of the Fort:**The launch of the implementation of the fort dedicated to smartphones and devices came as culmination of the UAE'S efforts in implementing the spread of the virus as it represents an official digital platform for the emerging Corona virus tests in the UAE.The application brings together the advantages and characteristics of both applications "**stay Home**" and "**Trace Covid**", as well as ensuring superior protection of user privacy through the best standards of intelligence technology.

**- Virtual Medicine and platform "MILFI" :** The ministry also launched the virtual doctor for the new Corona virus COVID-19 ,as this application allows people to inquire about the symptoms they feel and their inquiries are answered in record time.

The "MILFI" platform provides urgent access to the medical records of the care provider who are not registered in the "MILFI" platform ,and who are involved in efforts to address the epidemic of the new coronavirus COVID-19. This will give frontline workers the possibility of the ability to see the results of the tests in real time ,along with analyzing the patient's medical data according to medical record on the platform what helps to access the level of risk of these patients and to take more appropriate decisions and measures to care for them. ( Department of Health, 2020)

### Conclusion:

In the "**Corona era**" digital technology has become a safe haven, avoiding business owners from being subjected to the restrictions imposed by the epidemic. The Internet has become a place for

digital platforms that sell products and services, and provide the basic requirements for consumers, to turn these services into one of the most prominent forms of adaptation to these exceptional circumstances that obliged more than a billion people around the world to stay in their homes, to be companies of the technology and Internet sector, the biggest beneficiary of these The crisis, but it is certain that the world faces a new life remodel with different social, health and professional concepts. The study reached a number of results, the most important of which are:

- China's success in using big data to contain the disease and limit its spread through several applications by virtue of its vast area and large population (1.35 billion people) during a record time period; It is an event and a major challenge;
- considering that South Korea is the miracle of East Asian countries in the field of technology, This helped it to manage the crisis of corona rampant through absolute transparency and open media, and the application of general prevention measures and the use of technology and data in a permanent and innovative way;
- The UAE demonstrated to the world that it is always ready to manage crises with high efficiency after a sound infrastructure has been established to keep pace with the era of technology;
- Corona imposes friendship between man and technology as quarantine measures and compulsory non-direct contact between humans impose resort to digital technology to save that, which will enhance the virtual world in human life.

#### **Recommendations:**

- Companies need to take advantage of the lessons they have learned, by analyzing the efficiency and usefulness of teleworking for employees, while considering the possibility of automating some jobs or digitizing them to focus on creative multi-skill jobs.
- The necessity of realizing the importance of digital technology in human life, as those who will lag behind individuals, parties, organizations, institutions and states from realizing the importance of this technology will be overtaken by time, and that they have no place under the sun without Corona later. Digital technological development is not just a decision, but a long strategic path, which must be given the highest priority.

So, and in light of these difficult times the world is going through, digital technology is a ray of hope for individuals, institutions and governments in different fields and cultures, and therefore it is a gateway to a new turn in the world even after the Corona virus.

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