

*Future visions for the development of the Distance education system in light of Epidemic "Covid-19 as a model"*

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**Abstract :** The information explosion and the tremendous development in the means of communication today have put the educational and knowledge environment in front of great developments and a high speed of performance, with distinctive uses of very diverse electronic technologies. This required radical changes in the quality of education and the roles of students; That is, moving them from classical learning to electronic learning, so there was a need to use this type of education as an effective strategy in higher education aimed at improving the educational process, and working to promote and value scientific research at the university level. In light of the exceptional circumstances imposed by crises, the latest of which is the Corona pandemic, it has become necessary to use e-education as an effective strategy to advance scientific research and ensure its continuation. Therefore, we will seek in this paper to clarify the importance of distance education at the university level and to highlight its role in activating modern technologies in light of the challenges and obstacles in a time of the epidemic.

**Keywords:** Distance education, E-learning, learner, crisis, Covid-19.

## رؤى مستقبلية لتطوير نظام التعليم عن بعد في ظل انتشار الوباء "كوفيد - ١٩" كأمودج

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**الخلاصة :** أدى الانفجار المعلوماتي والتطور الهائل في وسائل الاتصال اليوم إلى وضع البيئة التعليمية والمعرفية في مواجهة تطورات كبيرة وسرعة عالية في الأداء ، مع استخدامات مميزة لتقنيات إلكترونية متنوعة للغاية. وهذا يتطلب تغييرات جذرية في جودة التعليم وأدوار الطلاب ؛ أي الانتقال من التعلم الكلاسيكي إلى التعلم الإلكتروني ، لذلك كانت هناك حاجة لاستخدام هذا النوع من التعليم كاستراتيجية فعالة في التعليم العالي تهدف إلى تحسين العملية التعليمية ، والعمل على تعزيز البحث العلمي وتقييمه على المستوى الجامعي. في ظل الظروف الاستثنائية التي تفرضها الأزمات ، وآخرها جائحة كورونا ، أصبح من الضروري استخدام التعليم الإلكتروني كاستراتيجية فعالة للنهوض بالبحث العلمي وضمان استمراره. لذلك سنسعى في هذه الورقة إلى توضيح أهمية التعليم عن بعد على المستوى الجامعي وإبراز دوره في تفعيل التقنيات الحديثة في ظل التحديات والعقبات في زمن الوباء.

**1. Introduction:** The educational system is witnessing great developments, especially in the field of information technology and modern technologies. At the same time, it has become necessary to keep pace with scientific and technological progress at the level of technological innovations and their effects on both the individual and society. Since education is the backbone in building societies and individuals, education specialists are in a constant search for the best and most effective ways to provide an active interactive learning environment that contributes to the formation of the university student and works to crystallize its future features [1]. With the development of the communications and information revolution and the unprecedented explosion of knowledge that accompanied it, universities, especially in light of the Corona pandemic, turned towards distance education due to its unique characteristics that distinguish it from traditional education, and the adoption of electronic evaluation as a basic standard in evaluating students' knowledge, information and results. The e-learning, which is distance education, is an attempt by the concerned ministries to control the

situation and maintain and protect the continuity of education as a societal necessity. On other side, information technology and the Internet have opened the way for access to knowledge and educational quality to enable learners to improve their life, professional and scientific skills and benefit from the advantages offered by e-learning such as programs, systems, and applications [2]. There is no doubt that distance education has become an urgent necessity, especially in times of crisis, and the spread of epidemics and viruses that require social distancing through information systems and the web to view many pages, studies and websites, so it has become certain to support it with parallel education that covers the deficit created by emergency situations [3].

### **1.1 Problem statement**

In Iraq and many Arab countries, the ministries of primary and higher education have called for the opening of educational courses and electronic platforms as a temporary alternative to classical education to complete the academic year [4]. This is what makes us ask a question about the procedures on which the educational administration is based in the management of educational platforms, and accordingly this research seeks to answer The following problems:

- Q1-Do educational institutions have the capabilities to adopt distance education?
- Q2- The effectiveness of distance education technique to effectively overcome the crisis?
- Q3-The future prospects of distance education?

**1.2 Study Significance :** This study is important in view of the extreme care that has been given to distance education in recent years in Iraq and the Arab countries, especially in the recent period as a result of the suspension of studies in universities, imposing itself as providing effective technical methods that work to make the educational process successful. In addition to that, the importance of research in digital education is also evident, as it is the way to follow technological developments in countries with applicant that has long experience in e-learning so that we can benefit from it in our educational system at all levels.

**1.3 Study Objectives :** This study aims to define the concept of distance education and explain its benefits as well as its obstacles Addressing the future of distance education and the challenges facing its application in light of the spread of the Corona pandemic, and at a

second level we seek to clarify the impact of the use of electronic media and to identify the extent to which students at the university benefit from educational platforms, and to stand on the challenges facing the education sector during its transformation from traditional education to Digital education by exciting research in distance education with an approach Methods, illustrations used, and obstacles. In addition to the foregoing, the research seeks to reveal the challenges that wait distance education and the future vision for it after Corona, especially since many Arab countries have had experiences in adopting it as an auxiliary tributary to traditional education for several years.

**1.4 Study Structure :** The research consists of three sections, where the first topic is concerned with clarifying the conceptual framework of e-learning, while the second topic deals with the reality of distance education in light of the Corona pandemic, and in the end the third topic talks about the challenges and future prospects of distance education in crises.

**2. Related works :** Talking about distance education in general includes a presentation of previous studies that touched on this topic in order to clarify more about the most important elements that may be among the difficulties or challenges faced by the users of this technology and in order to link the results of these studies to the current study and to try to reveal the elements that were not mentioned in this study:

- The study conducted by [5], which aimed to identify the incentives and obstacles that support or hinder faculty members from adopting the e-learning system in educational institutions, to achieve the objectives of the study, the sample consisted of 27 faculty members in the Faculty of Education at St. Thomas University in the United States of America, The results of this study regarding incentives are represented in communication between students and ease of access to materials related to e-learning, as well as material rewards and encouragement by colleagues and administrators. He does this learning, and the teaching burden is excessive on the faculty member.
- The study [6] dealt with the opinions of faculty members about the technology of e-learning and distance learning, which was conducted in a college in the universities of South Texas in the United States of America. The results of this study revealed that faculty members are afraid of the increase in the time required to use e-learning, and a possible increase in office hours, in addition to designing and preparing generalization programs. Also, there is another obstacle

represented in the availability of some of the skills that faculty members need to implement this style of learning, and the lack of confidence in the administrative and financial support for e-learning programs.

- Another study [7], discussed the factors of success of e-learning experiences, the most important of which was the training factor using the Moodle, where she discussed the factors that helped the success of the experience of applying the e-learning using the Moodle system, and she referred to the factor of the intensive training courses for e-learning at Bartlett University about the system, which helped teachers to ease the use of the system. Where appropriate scenarios for using the system were developed, and the appropriate needs and tools were identified, in addition to training programs.
- Study [8] aimed to identify the effectiveness of the e-learning environment in developing academic achievement and attitude towards learning. Where an e-learning environment is designed, a test and a scale are designed to assess the trend towards learning, the quasi-experimental approach was applied to a sample of students, divided into a control group taught through the traditional method, and an experimental group taught through the e-learning environment. The results of the study showed that there were statistically significant differences in favor of the experimental group in both the post-achievement test and the measure of attitude towards learning.
- In a study conducted by [9] aimed at modeling e-learning interaction, learner satisfaction and continuous learning intentions in Ugandan higher education institutions, this study relied on the survey method, and examined the effectiveness of e-learning that was linked to learner satisfaction and continuous learning intentions. Data were collected using a questionnaire consisting of 28 items, and it was applied to 232 learners. The results revealed that the e-learning interaction consists of a three-factor structure: the learner interface, the feedback interaction, and the learning content.

**3. E-learning fundamentals :**The knowledge and communications revolution witnessed many changes, which resulted in an increase in the volume of information, which made traditional education methods unable to keep pace with these changes and in all fields, in addition to the outbreak of the Corona pandemic in all countries of the world, which gave great importance to e-learning due to the urgent need for human development. Information technology has helped to improve the awareness of the lives of many individuals, which led to the establishment of educational institutions that grant university degrees to those wishing to acquire education and knowledge without leaving

their work or place of residence. Some also see that there is ambiguity and lack of clarity in defining the concept of e-learning at the level of educational institutions, as well as the varying opinions of those in charge of the educational process about the location that this type of education will occupy as it will be essential or a complete alternative to traditional education [10].

**3.1: E-learning Concept :** In the following we will review some definitions of e-learning concept :

- E-learning refers to the use of information and communication technologies to enable access to online learning/teaching resources in the broadest sense [10].
- E-learning is an interactive system for distance education, provided to the learner according to demand, and depends on an integrated digital electronic environment aimed at building courses and delivering them through electronic networks, guidance and orientation, organizing tests, managing or evaluating resources and processes, and this definition reflects the specifics of e-learning that affect the Educational communication processes and building educational decisions and strategies, and evaluation [11].
- Also, there is another definition of e-learning, which is the use of technology and technological means in education and harnessing them to learn the student individually and collectively and make him the focus of the lecture, through multimedia, electronic devices and other means [12].
- Also, it is defined as a method of education using modern means of communication from a computer, networks, and multimedia such as image, sound, graphics, search mechanisms, electronic libraries, as well as Internet portals, whether that is remotely or in the classroom [13].

**3.2: E-learning Advantages :** E-learning have a number of characteristics and advantages that make it provide educational quality because it is combines effectiveness, flexibility and integrative participatory work, and it's most important characteristics can be summarized as follows[14]:

- Providing more flexibility in presenting information without having a specific time or place to give lessons and educational curricula.
- Partial education ability in addition to work, the learner is not only linked to learning, but can practice his e-learning and practice other professional work.

- E-learning allows the learner to increase the opportunity to rely more on himself as the center of the process educational.
- Reducing the cost of spending; E-learning saves the learner the burden of commuting to classes and educational centers and bypassing the physical barriers that hinder the educational process.
- Modern technology provides a rich environment for the learner that allows him to freely think, experiment, try and make mistakes without fearing the costly physical and moral consequences of experimenting, and providing high-cost laboratories.

**3.3: Cognitive and educational goals of e-learning :** Studies interested in information technology confirm that digital education achieves cognitive and educational goals, which we summarize in the following points [15,16,17]:

- Develop media thinking and improve learners' ability to solve complex problems.
- Increase their awareness of belonging to this sprawling world with spatial barriers.
- Digital education gives the learner fun while receiving knowledge and information, and is more exciting and interesting by presenting it with the help of shapes, images and audio-visual tapes in a way that simplifies the information and makes it easier to understand and benefit.
- Digital education achieves the highest degree of efficiency through the methods and strategies used to improve the educational process.
- E-learning encourages skill development and self-learning training.
- Makes the curriculum and teaching materials dry in teaching them more attractive to learners by drawing their attention, by means of the available illustrations.
- E-learning provides teachers and students with expanded educational materials due to its connection to the Internet, which displays information of various kinds, the latest data, and the latest statistics.
- The learner can return to the lesson several times to understand it and make up for what he missed, according to the appropriate time for him.
- The learners control the learning processes, while receiving immediate feedback to ensure the efficiency of the practice of the learning processes.
- Helps the learner to overcome difficulties in learning the material by taking into account individual differences and self-skills.

- Taking advantage of time, speed of learning, high learning efficiency and reducing learning time.
- E-learning is based on the components of the educational process; the teacher, the learner and the scientific subject, with the ability to develop it according to the data of technology. E-learning is organized and structured using Internet media, computers, and electronic educational applications on mobile phones. Therefore, e-learning offers the opportunity to learn in ways that have a lot of suspense and productivity away from traditional methods of indoctrination.
- E-learning helps to provide scientific material and curricula on all days of the week, all hours of the day, and this feature is useful for people with a mixture or who want to learn at a certain time.
- Interested studies suggest that e-learning is suitable for adults who have been associated with jobs and businesses and the nature of their work does not enable them to directly attend traditional classes, those who have dropped out due to force majeure, those who want to combine education and work, and individuals who have completed their education but want to acquire a new knowledge.

**3.4: The main disadvantages of e-learning :** There are many studies that indicated a set of disadvantages that characterize e-learning, which are represented in the following [18,19,20]:

- The varying degree of security of educational programs or websites and maintaining the confidentiality of information.
- Many tests of educational programs are limited to objective questions.
- E-learning loses the positive presence of the educational institution as an educational body that plays its role in the social and moral upbringing of learners
- E-learning reduces the role of the teacher as the main influencer in the educational activity.
- E-learning makes learners subject to reflection and remoteness, as well as a lack of interaction or relationships. It therefore takes strong motivation and time management skills in order to minimize these effects.
- The e-learning method may be less effective than traditional learning methods.
- When it comes to improving the learner's communication skills, e-learning may have a negative impact. Although learners may have

excellent academic knowledge, they may not possess the skills to present the acquired knowledge to others.

- It is difficult to control activities such as cheating or organizationally when using e-learning, it may also be exposed to hacking, plagiarism, cheating and inappropriate use of copy and paste.
- E-learning may negatively affect socialization skills and limit the role of trainers as managers of the educational process. In addition, it cannot be used effectively for all disciplines.

**4. Corona pandemic crisis :** Today, the world is facing many crises due to the outbreak of the new Corona epidemic, which has crippled the world in all its sectors, stopping the course of life in it as a whole. The world has been floundering randomly right and left, crying out to the elites of medical know-how, technological knowledge and political speculation to reveal an urgent solution until it breathes a sigh of relief. So, if the world has to adapt to coexistence with this unfamiliar enemy, then it must go down a path towards ensuring continuity of existence and searching for the best possible options and alternatives to enable the education wheel to resume its activity. It was of great importance to enhance the creative development action to the sectors of education and scientific research in light of this difficult epidemiological circumstance, by resorting to adopting the e-learning and the co-educational model to complement the life path of educational systems in general.

**4.1: Identity :** For more than two years, the entire world has been under the burden of astonishment and threat, the focus of the tournament here is the Covid 19 virus, the reasons for surprise lie in its supernatural features, as it constitutes risk factors and can lead to death, a real source of threat. It is not like all viruses, adapted for transmission between humans through close contact, physical contact, and aerosols; Due to its uniqueness in aggressiveness, fierce resistance and superior ability to transform. Not to mention the length of his incubation period, estimated at 14 days, with no symptoms for a large number of young carriers and those with strong autoimmunity, all of which are factors that increase the risk rate, allowing him to inflict serious damage on the health as well as the economic, political and social levels. The advantage of the development in the means of transportation and travel in the new world has provided the opportunity for the unreasonable spread and the transformation of this hero “Covid 19 virus” into a global epidemic [21].

**4-2: Reflections and dimensions of Covid-19 crisis :** The Covid-19 virus has recorded an unparalleled wide spread in the whole world, after a heinous invasion journey from Wuhan in China, to New York in the United States of America, Brazil and Russia through Europe, leaving the largest hotspots for spread in the world. In the following, we will review its negative effects on different sectors:

**4-2-1: Economic :** The Corona pandemic has resulted in complex and major problems that will have devastating effects if they are not remedied, as economic stagnation threatens the major economies of the world, and where food security threatens strategies to confront the virus in itself as an immediate circumstantial necessity, and where the military collision between the powers of the world following the state of political crisis It's imminent. There is stagnation, but rather an economic paralysis; We can see its impact on many levels [22]:

- Increasing the budget allocated for spending on coping strategies to contain the problem at the expense of budgets that were originally intended to achieve other economic goals through providing medical equipment and devices, establishing field and floating hospitals, raising wages and allowances for the health sector, digging mass graves under unusual burial conditions and traditions Raising the budget for medical scientific research.
- The decline in the return on economic production and the disruption of international and national trade due to the policies of closure and quarantine.
- A decrease in the rate of mass consumption and a reduction in the volume of satiation for many basic, luxury and recreational needs, which affected public health and the standard and lifestyle.
- Seeking the intervention of military institutions in some countries to impose home quarantine, transfer and burial of dead bodies, and transfer medical equipment and devices.

**4-2-2: Public health :** The Covid-19 virus posed a great danger to public health and claimed many lives, in addition to the multiplicity of groups exposed to risk factors, such as the elderly and people with chronic and immune diseases (such as AIDS, diabetes, cardiovascular disease, cancer), even children and youth and both genders[23].

**4-2-3: Political and security :** We can see the strong impact of the Corona virus and the political and security crises it has caused through the following [24]:

- It affected the nature of political and security relations and economic exchange between great powers such as the case of the United States of America in the face of China in continuation of the repercussions of the technological war, which has not subsided yet, and also the focus of each country's attention on itself and competition in obtaining medical equipment in addition to the fierce competition between laboratories and centers medical-operated commercial companies; The goal is high profitability dimensions and the acquisition of markets with high market shares.
- Its impact on the nature and forms of political cooperation between the countries of the Western world and the countries of the world of the South, it is possible that the paper of medicines and vaccines for medical companies, in times of health war and global epidemics, will replace the paper of loans and financial donations to international banks.
- Confusion in the positions of the European Union countries as well as the Anglo-Saxon countries, after they lost the compass of controlling the problem management in a global way, due to the isolation of each party separately, confirming the uniqueness of leadership and international presence.

**4-2-4: Social and psychological :** We can touch the impact of the Covid-19 crises on psychological and social through the following[25]:

- Psychological stress, as a result of feelings of anxiety and horror over illness and annihilation, then feelings of pain and sadness for the deceased victims, especially from their families, in addition to the growing feeling of depression, frustration and despair due to loneliness and the extinguishing of the candle of hope for a solution.
- Social pressures as a result of home quarantine and social distancing for a long time in many countries, caused the severance of direct communication, reassurance on family, relatives and friends, exposure to food supplies, and the lack of delivery service in many countries, cities and neighborhoods in underdeveloped countries.

**4-2-5: Culture :** While its cultural danger lies in the negative aspects of the shrinkage of cultural life with its symbols, rituals and rituals, with its values, traditions, rituals and deep meanings, those inspired by the cultures of different peoples. We have witnessed the disruption of all religious and social institutions and cultural activities at the artistic level, such as film, theatrical, television, musical and lyrical

productions, folklore and the traveling circus, without neglecting other different types of activities such as competitive sports, cultural tourism and others that require a direct public presence [26].

##### **5: Distance education strategies in the face of the Covid-19 crisis :**

The interest of applied sciences in the field of developing technologies in the developed world has resulted in the growing trend towards investing in them to serve the further expansion of the scope of their uses and their generalization in all aspects of life, in order to meet the new needs and achieve the desired luxury. Under its shadows are technological innovations such as phones Smart fifth generation, smart cities in Germany, smart bikes and smart glasses in France, America and Britain, driverless delivery cars in America, smart robots in China, Korea, Russia and others, undoubtedly many, but more than that, we see and hear in Spain About restaurants that use 3D printers to cook different foods according to the health needs of customers. There is no doubt that learning and e-learning is one of the most wonderful areas of beneficial use of information technology, as it provides great services to a very wide sector of individuals and societies. From the youth category, and created what is known today as the encouragement of creative industries with the emergence of creative identities as a new global pattern. In light of the wide spread of digitization and the intrusion of the virtual world by large segments of society; gain distance education is of great importance in achieving the goals of public education policies and social learning in general. It strongly supports regular or traditional education in its direct form, whether closely using the illustrative means, or distance education by transmitting the activities of the school class through screens to the learners' homes wherever they are through academic education platforms and virtual meeting rooms, where social networking devices and networks are used, which include classes Various under different names such as a computer or a mobile phone of the third generation at least, laptops or tablets, WhatsApp groups, Viber, Twitter, Facebook and others, its goal is not just to deliver information to its consumers only, but more than that, it can perform the roles itself and with great skill , those that were and still are in most countries accounted for by the supervisors of teachers and trainers in the classroom and through direct interaction [27].

The conditions of educational aids that must be available in distance education to accomplish its tasks in the best way are as follows [28]:

- Determine the purpose of the method.
- The accuracy of the scientific material and its relevance to the lesson material.

- Availability of raw materials needed to manufacture it with cheap costs
- The medium is prepared for one purpose so that it is far from overcrowding and stuffing · That its size or area fit with the number of students in the class
- To be presented at the right time and not to leave until you lose the element of excitement
- To survive as information boards, political maps, and graphs to suit the students' perceptions so that they are easy to benefit from.
- Test the method before using it to ensure its validity.

We note that such conditions can be applied to many approved means through e-learning platforms, including curricula and knowledge materials supported by pictures, documents, maps, graphs, bibliographical and educational films; It takes into account the specificity of the educational category addressed to it, although on the other hand it requires great financial capabilities related to the parties to the educational process as well as the educational administration in educational institutions.

#### **6: The role of distance education system in facing the crisis of Covid-**

**19** : The need for distance education system is further exacerbated as the benefits of the Corona pandemic continue to sweep the world after The catastrophic failure to contain it spatially and temporally, as most countries tend to adopt immediate strategies to confront the constraints of the epidemic in the most vital areas that were referred to previously. While the education sector's continuation of its activity remains pending the requirement to resort to support for distance education, by adopting the co-educational pattern, as an attempt to make up for what has been missed from teaching classes, as attention is directed in the Arab world, like the world towards accepting the philosophy of coexistence and adaptation to this epidemic in the event of this sustainability epidemic. Simply put, e-learning is the style of education that is achieved through digital electronic devices, such as computers or mobile phones, for example, including internet networks, education platforms, chat rooms, and holding meetings through them using programs such as Zoom, for example. Here, it must be pointed out that the strategies for facing the repercussions of Corona in public life and within the framework of public education institutions at least are varied according to many circumstances and factors, especially since the challenges of countries are not on the same level, in terms of their material capabilities such as office equipment, the cost of study and school services, and the wages of employees. Furthermore, the workers in the sector, as well as its

qualifications of human resources, in addition to the number of students and students in schools and universities. Thus, we find that most countries need to activate the employment of technology in the field of distance education, including e-learning, which has been reinforced by the current Corona situation; It would embody a vital requirement that nourishes the integration of efforts to achieve the goals of educational policies, which are difficult to achieve as required only by adopting the traditional direct education pattern, especially with regard to covering the needs of the sector and addressing its shortcomings for material and human reasons[29].

**7: Results :** The study reached the following results:

1. E-learning is a modern and advanced concept of flexible education systems such as the distance education system and the open education system. It is also the fruit of the tremendous technical development and the wide knowledge openness that the world is witnessing, which is a major challenge to the current level of educational institutions.
2. The e-learning system depends on the use of information and communication technology in a relatively absolute manner, which requires attention to this sector and in parallel to e-learning in order to reach an integrated educational system that serves educational goals.
3. The dependence of most educational institutions on traditional methods of education, in addition to the lack of cultural and social awareness of the importance of the Internet and the difficulty of dealing with electronic programs.
4. The lack of sufficient e-learning requirements, including the necessary infrastructure, in addition to the lack of financial support from the Ministry of Higher Education to implement these strategies.
5. The absence of a clear and well-thought-out plan by specialists in educational technology for the purpose of gradual transition from traditional education to e-learning in higher education institutions in Libya.
6. The lack of knowledge of many professors, trainers and students with the necessary skills to deal with modern technologies, in addition to the lack of cultural awareness to adopt such technologies in the field of education and the lack of organizational and guidance expertise on which to operate.
7. Referring to previous studies and according to indicators of international competitiveness, the quality of the traditional educational system in Iraq is very low and suffers from a weakness in the ability to innovate, technical cooperation and scientific research, which is a major challenge for Iraqi educational institutions and makes it difficult to use education e-learning to these institutions.

**8: Recommendations:** Through this research paper, we conclude a set of recommendations that we consider necessary to activate the role of e-learning in managing the Corona pandemic crisis and its aftermath, through:

1. Investing in the positive directives for students and faculty members towards e-learning, developing plans and programs to benefit from these directives, and giving training courses in the field of e-learning to both students and faculty members.
- 2 . Training and encouraging teachers to communicate with students through electronic pages and e-mail, given that many students have Internet service at home.
- 3 . Emphasizing the necessity of the university's interest in introducing the method of e-learning in university education, and spreading e-culture among students to achieve the greatest degree of interaction with this type of education.
- 4 . Providing an appropriate educational structure for the application of e-learning at the university and removing all human, material and technical obstacles that prevent its spread in the educational system in various stages and fields.
- 5 . The university should conduct more studies and research to find out the effectiveness of e-learning in the presence of harsh conditions and hold conferences and seminars for the development and advancement of e-learning.
- 6 . The need for the university to offer materials that give the student the skills and techniques of e-learning in order to facilitate the process of interaction and benefit by students with the educational materials presented electronically.

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