From prediction to foresight: The reality of Arab futures studies in light of the digital revolution and artificial intelligence

من التنبؤ إلى الاستشراف واقع الدراسات المستقبلية العربية في ظل الثورة الرقمية والذكاء الاصطناعي

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Abstract:

The concept of the future has evolved, as has the outlook on it, with the development of human thought. Future studies have come to occupy an important position in the public policies of developed countries, where thousands of think tanks have been established, tasked with anticipating the future. These centers have worked to complete numerous future studies in various fields, thus becoming the driving force behind and guiding the behavior of countries internally and externally. In contrast, the countries of the Arab world have remained on the margins of these transformations, with the exception of some modest efforts in this field. The nature of the challenges and stakes that the countries of the Arab world will face in the future makes the activation of future studies in Arab policies more than inevitable, dictated by a set of considerations: domestic, regional, and international.

.**keyword**: artificial intelligence.; Arabworld.; Future studies;.; reality
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introduction:

Today, it has become clear to us, beyond any doubt, that the world around us is living in the "future," especially after the speed and acceleration of events on the international scene became the prominent feature of the post-Cold War period, or what is commonly called the era of globalization. It has been confirmed to us once again that countries that aspire to power and superiority are the ones who create their future and direct it in the desired manner, believing in their ability to intervene in it and manage it, by relying on the foundations of a precise and advanced scientific method, which serves as a window into their future. From here, the importance of future studies emerges as a technique that helps in extrapolating and anticipating the future.

International reality has proven the numerous experiences of many countries, especially advanced ones, which have worked on the outputs of think tanks, research centers, and universities, their ability and competence in formulating a clear vision and roadmap that served as a compass for them towards engineering their future.

Given the great renaissance that future studies have brought about at the international level, specifically since the second half of the twentieth century, where this science has come to occupy an important position and enjoy great confidence among decision-makers in developed countries, its reality at the Arab level has remained marginal at the theoretical level, and almost non-existent at the institutional level. Based on this paradox, we pose the following question: What is the reality of future studies in the Arab world, and what is the way to activate it?

First: The nature of future studies

1-1- Definition of future studies

First, it should be noted that the first person to come up with the term "future study" was the German historian "Osip Flintheim" in 1930 AD, under the nameFuturology is the common name for the study of the future in English, and its equivalent in French is the term Prospertiv, coined by Gaston Bergé.

As for defining future studies as a science, there is no clear and precise agreement on the definition of the term, as is the case with

many terms that suffer from a crisis of terminological control in the social sciences. (1)

We find many concepts that indicate research in the field of the future, including the concept of futurism.Futurism, future research, future studies, futuristics, prognostics, futures, foresight studies, future movements, forecasting, and other terms. However, the term that has been agreed upon and used most frequently is "future studies," followed by the term "future research."

In 1973, the Swedish Government Secretariat refused to use the term "future science" and preferred to use the term "future studies," on the grounds that studies embrace multiple visions and different approaches from all disciplines and fields of knowledge. This definition came from the idea that many people were truly interested in the future developments of society in all its dimensions during the seventies of the last century. (2)

Hence, the future is not predicted, but rather prepared for, because the role of future studies does not lie in issuing predictions, but in determining precise scientific trends by proposing strategies capable of transforming it into a possible future, as future studies have their own culture which cannot appear outside of it, and it is by nature a culture whose roots extend back to the age of enlightenment, rationality, and liberation from rigid molds and closure within sacred intellectual frameworks that restrict initiative, hinder renewal, confiscate creativity, imprison imagination, and abort critical thinking. (3)

The Oxford Dictionary defines futures studies as "the systematic speculation about the future, especially in terms of current trends in society." Edward Cornish denied that future research or foresight is a prediction of the future, but rather an effort to improve it. "We want to anticipate possible or expected future conditions so that we can prepare for them. We especially want to know about opportunities and risks so that we are prepared to meet them." As for the Secretary-General of the Arab League for Future Studies, he considered future research to be "the organized effort that seeks to formulate predictions and forecasts."(4)

There are those who define future studies as "a group of studies and research that aim to determine trends in events and analyze the various variables that can affect the creation of these trends or the

movement of their path, or a group of studies and research that reveal problems or that are likely to appear in the future and predict the priorities that can be determined as solutions." (5)

Finally, in summary, regarding the definition of future studies, whether it is a science, an art, or a study, it takes a share of all of that, so it remains a human field in which knowledge is integrated and diverse. Its goal is to analyze and evaluate future developments in human life in a rational and objective way that opens up space for human creation and innovation. It is not a prediction as much as it is a systematic and organized scientific product. The future is not a given in advance or an inevitable fate, but rather it is in the process of formation. (6)

1-2 - The emergence of future studies

There is no doubt that any research topic has its historical roots and extensions. The subject of future studies is as old as humanity, unlike the methods that were developed recently. Since ancient times, man has been keen to anticipate his future, and to try to understand and tame it, with the aim of looking forward to knowing it and realizing what it will bring. Anticipating the future is a human nature that has been deeply rooted in him since ancient times, as evidenced by the fact that all successive human civilizations throughout history have been interested in prediction, forecasting, astrology, and imagining the future.

It seems that human civilization's representation of the future, according to some researchers, has been linked to three perspectives: In the era when religions were prevalent, the future was viewed as predetermined events. In the era when scientific positivism prevailed, the future was viewed as an inevitable result of events linked by the principle of causality. In the contemporary era, however, a view of uncertainty prevails, due to the complexity and intertwining of events and the impossibility of certainty in knowing the outcomes of events and situations. (7)

Regarding the chronological periodization of the emergence of future studies, or rather the precise definition of the time period in which interest in future studies emerged, most analysts, most notably Dr. Walid Abdel-Hay, have agreed to identify three chronologically

sequential historical stages through which the field of future studies has passed, as follows:

1)- The Utopia stage:

Utopia is the dream of philosophers and thinkers, and the Greek origin of the word indicates that it consists of two partsOu means not and topos means any place, meaning that the word as a whole means not a place or not in a place. In other words, it is that thing that does not exist in reality or the land of dreams, as Zaki Naguib Mahmoud calls it. In political science, it means a desire that cannot be achieved..

Human thought moved from superstition, divination, prophecy and astrology to the utopias of philosophers. If these utopias brought about a qualitative shift in how humans envisioned their future, it was because they presented, as was the case with Plato and Al-Farabi, for example, alternative visions of the present, based on what morality, political, economic and social relations should be. Then came later utopias that were more embodied in the development of human society and the development of scientific thought within it, and thus benefited from analyzing history and reconstructing its data and facts. (8)

Saint Augustine envisioned a struggle between the City of God, which is based primarily on virtue, and the City of Man, which is based on vanity and evil. He assumed that victory would be on the side of the former, and that people should strive to translate it into a tangible reality. At the end of the fifteenth century, Thomas More envisionedThomas Moor, in his book entitled "Utopia," proposed the idea of achieving an ideal society free of all forms of violence, injustice, and oppression. In the late sixteenth century, the English philosopher Francis Bacon published a book entitled "New Atlantic," in which he envisioned future ideas about the world, outlining the features of a better secular society for humanity. (9)

Perhaps the purpose that led these thinkers and philosophers to adopt a metaphysical concept can be explained:

First: The need for a society that meets the ideal specifications.

Second: It is a desire and ambition in souls that looks forward to the best and to the future.

Third: It includes the highest ethical views that philosophers theorized about and that are considered the highest attainment of Greek thought.

The imaginary image is nothing but a mental attempt on the part of the thinker to draw situations that are different from what exists. Utopia cannot be considered a mere mental image to draw a situation that is different from reality only, but rather it is a predictive future theory, on the basis of which the assumed or proposed system can be built. It is known that many of the ideas and theories of philosophers were transformed into states or a system of states, as we notice in the ideas of William James, Peirce and Dewey, which became the basis for the pragmatic system. The Marxist system employed the planning and theorizing of the philosopher Marx, and states and systems are nothing but planning and an image in the mind, but the images of cities vary, as one of the most complex of those images is the utopia or the ideal city. (10)

2)- Planning stage

Anyone who follows the future studies movement can notice that interest in it, in terms of application and benefits, began with military institutions and war affairs, and then the world of finance and businessmen joined it, then the fields of industry, as the sixties of the last century represented a stage of a qualitative leap in terms of future studies in view of the major transformations that that stage witnessed, as the capitalist system faced a complex crisis in terms of economic performance and social and cultural problems. (11)

Alvin Toffler confirmed that:Toffler Alvin) in "Maps of the Future" that future studies

There were pragmatic motives behind it, as it was launched in the United States of America at the end of the war.

The second world war served military purposes before providing its civilian services to broad commercial sectors.

Educational and technological. It began its experimental localization in the US Air Force in 1944, and at that time it achieved

Two important achievements: The first is preparing a forecast of technological capabilities related to the US military.

The second is to assign the Douglas Aircraft Company to establish the Rand Aircraft Project (Rand)

It quickly transformed from a mere institution for the study of alternative weapons systems into a kind of think tank calledTanks Think, which has created innovative ways to control and anticipate future events, and has presented

The West, not just the United States, witnessed, after the Second World War, a broad movement aimed at paying attention to future studies and deepening the concept of futurism in minds, until future studies became an academic industry, a scientific activity in its own right, and a practical method for management and planning (12).

3)- The stage of global models:

The world has witnessed numerous phenomena that threaten international peace and security. The nature of the international system, which has become characterized by chaos, a loss of trust, and uncertainty among nations, has led to the emergence of highly interconnected and complex international security threats, such as international terrorism, the environment, and humanitarian intervention. This has led to the emergence of a phase of global models.

One of the most prominent thinkers of global models within the framework of the great global game Great Logistics by American scientist Buckminster Fuller, one of the most important pioneers of the normative school of futures studies. The Club of Rome held its first meeting in Rome in 1968, with the participation of approximately thirty scientists from ten countries. His studies focused on the interconnected relationship between the growing phenomenon of interdependence among different societies and the development of futures studies techniques, to address various possibilities for global phenomena. The first report of the Club of Rome had a profound impact, due to its pessimistic outlook on the future of the world.(13)

1-3- Methods and techniques of future studies

noThere is still a clear and evident agreement among scholars and specialists in the field of future studies regarding the methodological approaches used in this field, which indicates the intellectual and theoretical richness in this field. To overcome this problem, we will attempt to address the most important recognized approaches adopted by the majority of scholars in this field.

Theories and methodological approaches are considered important pillars of this type of study, as they require approaches or entrances ((approaches) and research methods and tools are the fruits of research activities and practices of natural and human sciences, such as natural and life sciences, engineering, ecology, sociology, economics, etc. Through many of the most famous and reliable future studies and research, it was possible to extract the characteristics of the conditions of the theoretical vision guiding future studies. These characteristics and conditions require that this vision be: historical, comprehensive, dynamic, and normative. Its historicity aims to be able to periodize the historical development of human societies, and to determine the factors of this development and what it includes of relative constants and variables, with the intention of arriving at generalizations that shed light on the present in order to understand it. Its comprehensiveness means that it has a great degree of analysis and understanding of complex and intertwined social relations.

Those interested in future studies have agreed that the aforementioned conditions must be met to give the study a scientific character. However, in contrast to this, there is no general, comprehensive theory in the various social sciences that is characterised by an explanatory, analytical and predictive capacity, which represents a theoretical challenge for future studies (14).In general, futures studies are the sum of intellectual activity that uses multiple approaches and perspectives to understand and comprehend what might happen in the future, how it will happen, and why it will happen.

There are many schools and intellectual models for future studies, and they have become diverse in their starting points and approaches. Among the approaches, we list the most important ones below:

The intuitive approach;It relies on personal experience and accumulated previous knowledge, and attempts to identify the interactions and connections that lead to a specific image that the researcher expects without claiming to prove it. It arises from a future vision that reflects the individual's subjectivity and private experiences.

exploratory approach;Which is related to the survey of opinion trends regarding the future of past relationships through a model of relationships and entanglements.

Targeted approach;This expresses the conscious and direct intervention to change future paths within the framework of specific goals and provisions, while benefiting from various methodological additions.

The holistic or comprehensive approach represents the precise expression of all phenomena, movements, changes, interconnections, and interactions. It does not ignore past relationships nor overlook the objective causes that will impose themselves to change future trajectories. This approach is a path for contemporary futures research.

conceptual approach;It is a widely used scientific method in future studies conducted and focused on by experts, researchers, and decision-makers in their studies and strategic decisions in the international political field, which allows such studies in the political field to control and define political relations, which it is preferable to adopt in light of pure geopolitical expectations. (15)

Second: The reality of future studies in the Arab world

It is well known that the emergence of future studies as an independent science is the product of a purely European environment, and like other development fields, Western visions and perspectives dominate the field of future studies.

And oftenWhat is ignored are developments in other countries that are outside the circles of Western thought.

We hardly observe any significant interest in future studies in the Arab world before the 1970s, and even the initial attempts led by the first generation of thinkers were limited, intermittent, and poor in their tools and techniques.

Arab efforts in the field of future studies are characterised by two characteristics: First, these studies were undertaken by think

tanks that are considered to be part of civil society and not governmental, with the exception of a few studies. Second, these studies did not achieve the principle of continuity and cumulative knowledge in this field. (16)

In order for us to understand the reality of future studies in the Arab world, we must rely on some indicators by which we can reveal the reality of future studies in our Arab world through a set of indicators:

1- The amount of financial spending and government support for institutions and think tanks that are interested in research in the field of future studies. Government spending on scientific research in general and on the field of future studies in particular by Arab countries is at the bottom of the list of countries on the global level.

2- The number of institutions and centers that undertake research into future affairs in the Arab world remains very small, compared to developed countries, as the number of think tanks in the Arab world combined in 2012 was estimated at about 339 centers, between those that are active periodically and non-periodically. The United States of America, for example, has approximately two thousand think tanks, while China has more than 500 think tanks, while England has a total of 440 centers, and Germany has 293 think tanks.

3. The scientific and academic value of the type of prospective studies conducted by Arab research centers, as they lack a comprehensive perspective due to the weakness of the methods and theoretical framework used in the study, not to mention the traditional management and intellectual and bureaucratic guardianship that dominates our scientific and cultural reality.

4. The small number of specialists and cadres in the Arab world working in the field of futures studies. Even if they exist, they lack mastery of the methods and techniques of futures studies, as well as weak training and exchange of knowledge and expertise between Arab countries.

5. There is a near-absence of forward-looking specializations in Arab universities, especially in the field of postgraduate studies, with the exception of some recently established specializations that are predominantly theoretical in nature and therefore their outcomes are far removed from practical reality.

6. The great rift and deep gap between decision-making centers and think tanks and foresight institutions. Despite the existence of some studies, they do not enjoy the confidence of decision-makers in Arab countries, unlike developed countries where decision-makers rely on the outputs of think tanks and foresight circles, which are considered the main driver of their policies, both domestically and abroad.

7. Lack of scientific and intellectual production in the field of future studies, and weak translation of foreign books and references specializing in this field.

The growing importance of future studies is not met with equal and equal attention in the Arab world. We still suffer from an almost complete absence of a future vision in most of our institutions, in many aspects of our lives, and even in the structure of our thinking. The small number of future studies that have been completed is the best evidence of the cognitive misery that these studies suffer from, most of which do not go beyond the narrow academic scope, and are not part of general social thinking, or actual practice, whether at the governmental level or at the individual level. They have not yet penetrated as a culture and method of thinking in public and private companies and institutions, not to mention their lack of a comprehensive and integrated view, with their reliance on a limited scientific base of data and information. (17)

Where the conflict is embodied in the framework of Arab thought, between the present and the unknown, or in the technical expression between the current reality and the future, based on the depth of the crisis that the Arabs are going through at its many levels, future studies in modern and contemporary Arab thought, despite their scarcity and limitations, have focused on the issues of modernity, reason and development. (18)

Based on the above, we conclude that the reality of future studies in the Arab world is still far from the desired level, with the exception of a few studies that can be considered the foundation for the beginning of the establishment of the science of future studies in the Arab world.

3 ways to activate future studies at the Arab level.

Focusing on the future has become an imperative, dictated by a number of considerations at the local and international levels. Most Arab countries today are experiencing complex, multi-level crises, and we do not see the solution to resolving them except through a civilized development project at all levels: political, economic, social, and cultural. This cannot be achieved without knowledge in all its fields. Hence, the pivotal importance of future studies emerges, as a science that anticipates the future of countries and develops rational solutions and alternatives to various problems and crises. This is done by providing decision-makers with specialized academic studies that will contribute to finding practical solutions to many current problems, as well as presenting medium- and long-term forward-looking visions in various fields, with the aim of guiding decision-makers towards engineering the future of their countries.

The need to activate future studies in Arab thought is imposed by the historical situation of the Arabs in the twenty-first century and their place in human civilization. Concern for the future is not a bourgeois intellectual luxury, as it is necessary to focus on the important elements of the movement in our contemporary world that compel us not to separate or isolate the Arabs from the logic of contemporary history. Perhaps the most dangerous task facing contemporary Arab thought, with all its branches and mechanisms, are the major challenges imposed on the Arab world by the advanced industrial world.

It is a mistake to think that the consolidation and expansion of the future culture is a matter of time that is decided automatically by time and therefore does not require a conscious will that moves the objective conditions for the advancement of future studies in the countries of the Arab world. Therefore, courage and the ability to understand the current Arab reality with its obstacles, possibilities and complexities are necessary, and to work on making a collective effort in the field of future studies to create the future and write history. It is necessary to raise awareness of the importance of future studies and to define their content, update their method and establish their culture. (19)

Scientific thinking about the future is not entirely foreign to the Arab region, but it has clearly been buried under many conservative ideologies. One of the most important early examples of the advancement of social thinking in the region is the historian and scholar Ibn Khaldun, who is considered the first to define the term "politics," describing it as the art of managing the home and the community on the basis of morality and wisdom, in order to encourage people to act in a way that ensures the protection and survival of the species. This means that Ibn Khaldun had a close, contemporary understanding of foresight.

Regarding the most effective ways to deepen future culture at the theoretical and institutional levels in the Arab world, we adopt a set of recommendations and mechanisms that we present below:

- Raising awareness of the importance of futures studies in envisioning and preparing for the future.
- Developing a culture of future thinking and directing the efforts of students and thinkers to think about the future.

The importance of capacity building in the field of future studies.

- Developing scientific curricula related to future studies in universities.
- Promote future thinking through organized competitions.

The Association of Arab Universities, the Federation of Arab Scientific Research Councils, and the Council of Arab Ministers of Education must take the initiative to propose a binding recommendation to integrate the culture of future studies into the curricula and syllabuses of Arab universities and schools, and to establish independent educational institutional entities (colleges, institutes, or universities) to teach future studies and address their curricula.

Rehabilitating the Arab research force - which is large - towards future-oriented research and thinking patterns, preparing new generations of researchers needed to renew the blood of Arab research and studies centers, and re-adapting the research activity of these centers from traditional conservative methods and approaches to future-oriented studies approaches and their innovative techniques..

Finally, we conclude that the Arab world today is required, more than ever before, to cooperate and integrate within the framework

of its institutions. The world today is moving according to blocs and alliances on various political, economic, cultural, and scientific levels. In light of the chaotic nature of the international system, and the dominance of the logic of force and its establishment as a norm in international relations, according to the following rule: if you are not active, you are acted upon. The countries of the Arab world may find themselves facing international competition and conflict, and in many cases, this may lead to military intervention on their lands. Therefore, they must raise awareness of the nature of future challenges and stakes by developing a future vision, abandoning improvisation and ideology, and also the necessity of liberation from intellectual and cultural dependence on the West, and working to crystallize an independent civilizational project, far removed from the Western model dedicated to hegemony and dependence, and oppressing other values and cultures.

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