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Analysis and review of research in the field of medical ethics in the international arena

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Abstract:

Background and Objective: Syntax analysis is a reliable method for discovering relationships and revealing connections between different scientific fields and visualizing the intellectual structure of a scientific discipline. This study attempts to study the intellectual structure of knowledge in medical ethics research using the technique of synonymy.

Materials and Methods: The research method of the present study is descriptive-analytical, which analyzes the content of the text with a scientometric approach. The research community includes 3296 records in the field of medical ethics in the Web of Science database for the period 1998-2018.

Findings: The findings showed that in terms of frequency, the key terms bioethics and informed consent had the highest frequency in medical ethics studies.

The findings related to hierarchical clustering led to the formation of 9 clusters in this area, with the clusters of futility in medicine, informed consent, and medical education with a clinical ethics approach being in the best strategic position. Ethical considerations: Honesty and trustworthiness in the selection of articles, reporting, and citation of the text have been observed.

Conclusion: The present study showed that the analysis of synonyms and clustering can help to understand the structure of thematic relations in a field. The results of the analysis of the strategy diagram showed that “informed consent”, “medical education with an ethical approach” and “nonsense in medicine” are the central clusters. In contrast, the four clusters “Doctor-Patient Relationship”, “Ethics in Medical Research”, “Medical Profession and Ethics” and “Easy Death” are emerging or declining clusters. Research is felt in some discussions and concepts such as abortion, simulation, sterilization and its vacuum.

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1 Introduction

The integration of science and ethics in various fields of knowledge has always been considered an important and certain principle for the material and spiritual advancement of mankind. In the realm of experimentation, especially in medicine, it has also been considered a gateway to a partial ethics of its own.

Medical ethics is an analytical activity in which various thoughts, beliefs, commitments, methods, behaviors, feelings, arguments, and debates in the field of ethical decision-making in medicine are carefully and critically examined and, where necessary, guidelines are issued. Medical ethics decisions, in the field of medical practice, determine the principles and values, good or bad, right or wrong, and what should or should not be done.¹

Considering the position of science and medicine, which is related to the dignity of existence and the importance of the human soul, and considering the extensive application of medicine in human health, research in medical ethics is of dual importance.²

Much research is currently underway in various areas of bioethics, and many articles have been published on bioethics topics,³ but there is a significant lack of research that examines this area in a scientific and objective manner, including international studies. In other words,

Identifying and presenting a visual representation without the mediation of the actual content of the issues raised in the field of medical ethics is necessary for the advancement of this field, so that in the light of that, it can anticipate the optimal use of society's resources and help the officials and policymakers in this field with the new knowledge and insight gained in this way.

Today, the emergence of scientometric techniques, along with the use of social network analysis techniques and science visualization software, has provided researchers with the ability to identify the structure of knowledge in various fields in a standardized way.

By using homonym analysis as one of the scientometric techniques, it is possible to examine the main topics of interest in research and study their thematic relationships. Synonym analysis is a content analysis technique that searches for patterns of occurrence of pairs of words or phrases within a set of texts to discover relationships between ideas in subject areas.⁴

Synonym analysis is based on the principle that research areas can be described based on patterns of word usage in publications.⁵ This technique is a reliable method for discovering relationships

¹ Campbell,et,al.2001.

² Mekkizadeh and Osareh,2011.

³ Larijani and Zahedi,2008.

⁴ Chen X,et,al.2016.

⁵ Soheili,et,al.2018.

and revealing connections between different scientific fields.¹ In this context, Chen and colleagues emphasized the feature of synonym analysis, that is, visualizing the intellectual structure of a scientific field.² Conceptually, synonym analysis is an appropriate method for discovering relationships between scientific research fields and reveals important connections that may be difficult to discover by other methods.³

In light of the above, the main objective of the study is to analyze the intellectual structure of knowledge in the field of medical ethics using scientometric techniques. The sub-objectives are: examining the growth trend of research conducted in the field of medical ethics, how the frequency distribution of key terms is distributed, identifying thematic clusters in the field of medical ethics, and the level of maturity and development of thematic clusters in this field.

Various studies have been conducted to study the research process and thematic structure using lexical correlation analysis in various fields, including medical education,⁴ health literacy,⁵ big data in medicine,⁶ disaster medicine, medical tourism, and a comparative study of Chinese articles in the field of medical ethics. A review of the previous studies shows that Syntax analysis is a suitable method for drawing the structure of science and drawing thematic maps in various fields.

This study aims to introduce the research areas and thematic areas of the field of medical ethics with the help of the method of syntax analysis, identifying and introducing the emerging and emerging thematic areas of this field. In other words, the problem of the present research is to identify the intellectual structure of knowledge in the field of medical ethics using It is from the analysis of synonyms.

2 Ethical Considerations

In this study, honesty and trustworthiness in the selection of articles, reporting, and citation of the text have been observed.

3. Materials and methods

The present research method is a descriptive-analytical type that analyzes the content of the text with a scientometric approach. The research community includes journal articles available in the Web of Science database in the field of medical ethics that were covered by the database on the date of the search (1/27/2019).

Web of Science is one of the world's leading scientific information databases, developed by Thomson Reuters. This database provides bibliographic information for articles, along with abstracts, as well as bibliographic information for sources used. One of the features of this database

¹ Ravikumar,et,al.2015.

² Chen X,et,al.2016.

³ Makkizadeh,et,al.2016.

⁴ Ershad,et,al.2011.

⁵ . Baji F, et al.2018.

⁶ Hsu WC,2018.

is its comprehensive thematic coverage, which makes it a suitable tool for searching for information across all disciplines, especially interdisciplinary topics.

First, for the purpose of data collection, after entering this database, in the subject search field, to retrieve the background of the field of medical ethics through a combined search with the search term "Medical Ethics" in the subject field and applying the article restriction, a number of 3296 documents were retrieved and stored.

Due to the limitation of the Web of Science database analysis section, which can only extract 500 records at a time, the retrieved records were extracted in 500-record files in tab-delimited format and stored on a personal computer. Since some words or phrases may be written in different forms or have synonyms, key words were edited, corrected, deleted, and consolidated after obtaining the opinion of a subject matter expert.

For example, singular and plural items were converted to one case. Also, the keyword Medical Ethics, which was a common control, was excluded from the study. In the next stage, after several stages of review and trial and error by setting the inclusion threshold on keywords that were repeated at least 13 times, a total of 53 highly frequent keywords were identified and included in the final analysis.

Various studies using the homonym analysis method have used different thresholds to include the top keywords in the analysis. For example, Liu et al. limited their analysis to 66 keywords.¹ Makizadeh also limited his final analysis to 52 keywords.² After identifying the most frequent keywords, a homonym matrix was prepared for these topics. A symmetric matrix is a square that shows how many articles each topic has in common with other topics.

The number of rows and columns is equal to the number of selected concepts, and each column indicates the number of times the two keywords associated with the row and column appear together in a document, so the matrix is a symmetric matrix. The existence of these matrices provides automatic thematic analyses using methods such as social network analysis and clustering. In the next stage, hierarchical clustering was performed using SPSS 20 software and the resulting dendrogram was analyzed. Then, for data analysis and analysis, a research structure in the field of medical ethics was presented using a strategic diagram.

4 Findings

Scientific products in the field of medical ethics represented in the Web of Science database, which was extracted between 1998 and 2018, were retrieved in a total of 3296 articles. The results of the analysis showed that the growth of scientific products related to the field of medical ethics has been on an upward trend over the time frame of the research, with further acceleration in recent years.

¹ Liu, et al.2012.

² . Makkizadeh,2019.

Table 1 shows the twenty keywords with the highest frequency. As is clear, the keyword Bioethics with a frequency of 127 had the highest frequency among all keywords. The keywords Informed Consent and Physician Patient Relationship are in second and third place with frequencies of 156 and 89, respectively. The synonym map between the selected keywords is drawn below (Figure 1).

Synonyms in a document indicate that those words are related and that a major part of the document's content is related to those words, so if we measure the amount of these synonyms, we can draw the conceptual network of a scientific field.

Clustering is a descriptive activity that explores the identification of natural groupings of data. In the present study, an attempt has been made to identify the relationships between documents by organizing the topics of this field. The relationships between documents in each field have been written as an expression of coherence or density between topics. Meanwhile, if there is any thematic coherence in the documents in a field, it indicates the semantic relationships and richness of that field in a particular field or language.

In order to identify the intellectual structure that dominates the field of medical ethics, the conceptual relationships of the key terms in question were analyzed, which led to the formation of nine thematic clusters (Figure 2).

Next, an analysis of thematic relationships is presented. The results related to the clusters obtained from the hierarchical cluster analysis are presented below. Of course, it is necessary to mention this point that in some clusters, in addition to the main and important key words, sometimes there are key words that do not have a direct semantic relationship with the topic of that cluster, which is not uncommon in synonym analysis, because these key words are more frequent in terms of frequency and also the correlation coefficient compared to other key words in that cluster. They have a lower level of influence.

4.1 Cluster 1: Medical futility

The first cluster of issues raised in the field of medical ethics is medical futility. In medicine and medical ethics, the question of medical futility has been a frequent one, leading to numerous discussions and focus on this topic.

Futility in medicine is defined as a situation in which an intervention - whether performed for diagnostic, preventive, curative, or rehabilitative purposes or for other medical purposes - does not provide any benefit to the intended patient. Therefore, medical ethics dictate that a physician refrain from performing futile procedures.¹ (19). In line with the present study, this issue has been identified² as one of the most prevalent. issues in other studies in the field of medical ethics.³

¹ Aramesh,2008.

² Jiang L, et al.2012.

³ Mekkizadeh and Osareh,2011.

4.2. Cluster 2: Doctor-Patient Relationship

The co-occurrence of key terms such as “healthcare”, “value”, “doctor-patient relationship”, “decision-making” and “managed care” shows that the ethical aspects of the doctor-patient relationship are still the most fundamental and controversial issues in professional medical ethics. This cluster consists of six key words, with doctor-patient communication being one of the most important words in this cluster. The results of this cluster are consistent with the research of Jiang et al.¹ on Chinese and non-Chinese medical ethics.

4.3. Cluster 3: Ethics in Medical Research

The third and largest cluster of topics in the field of medical ethics is the ethics of research, clinical trials, and human experimentation. Advances in medical science are due to research conducted on living beings, humans, and the environment. However, these advances are generally accompanied by harm to the subjects, which can endanger the health and rights of individuals or subjects. For this reason, the debate on ethics in research is one of the issues that has attracted the attention of medical researchers. In line with the present study, Jiang et al.² have addressed the issue of ethical review and medical research.

4.4. Cluster 4: Medical Profession and Ethics

The topics addressed in this cluster are medical profession, patient rights, and ethics. Real medicine is possible when the physician has learned the necessary duties and skills in dealing with the patient, the public, and society, or is familiar with the social ethics, manners, customs, traditions, and culture of his or her community. The physician's relationship with the patient must be such that the basic principles of medical ethics do not violate the patient's rights.³

4.5. Cluster 5: Assisted Death

The co-occurrence of terms such as “suicide or end-of-life decision,” “organ donation,” and “abortion” indicates that in research, physician-assisted suicide and assisted death are often considered to be the same from an ethical perspective, and these two terms are discussed more than once in ethics, although there is a clear legal distinction between them. Euthanasia is one of the most controversial topics in the field of end-of-life medical decisions.

There is some quantitative research on the attitudes of members of the public, especially nurses, who are more likely to be confronted with this issue than others.⁴ It has also been mentioned as one of the concepts related to this field in the study of medical ethics by Jiang et al.⁵

4.6. Cluster: 6 Brain Death and Organ Transplantation

¹ Jiang L, et al.2012.

² Jiang L, et al.2012.

³ Khademolhosseini,2009.

⁴ A companion to applied ethics,2008.

⁵ Jiang L, et al.2012.

The topics that are located next to each other in this cluster are: “Brain Death”, “Organ Transplantation” and “Death”. This clustering expresses the idea that the issue of organ donation to patients at the time of death is one of the important and challenging ethical debates that takes place in different societies, cultures and religions based on their values and laws.

Two major challenges in organ donation in patients at the time of death are determining the time of death and how to make decisions about organ donation. The correct diagnosis of brain death and the ethical issues in organ transplantation are very complex due to the many social factors (religion, culture, and traditions of the community) that influence it.¹

4.7 Cluster 7: Palliative Care with an End-of-Life Approach

The topics discussed in this area (palliative care, end of life, quality of life, end of life care, and medical opinion) support the point that palliative care is the science and art of improving the quality of life at the end of life or the end of life.

In this approach, the characteristics of the concept of palliative care, especially at the end of life or in cases such as improving the life of the patient and his family, improving the physical, mental and social well-being of the patient, paying attention to spirituality and relieving physical pain, have been identified. In line with the present study, other studies have also included palliative care as a basic care approach for the care of individuals at the end of life.²

4.8. Cluster 8: Informed Consent

The synonyms of key terms such as “autonomy”, “informed consent”, “privacy” indicate that the patient’s independence, self-determination and voluntary participation in medical treatment and health care research are matters of patient rights.

In general, the basis and foundation of informed consent is the principle of autonomy, and if there is one central concept in the bioethics movement, it is autonomy. Autonomy, or respect for the patient’s choice and freedom, is the first principle of medical ethics, and compliance with these principles is among the duties of the medical team.³

Autonomy and informed consent were the most frequent in terms of the degree of concordance of homozygous couples and ranked first in the table of homozygous couples. Some studies similar to this study have referred to the issue of informed consent.⁴

4.9. Cluster 9

¹ Bazmi, et al. 2009.

² Schneider, et al. 2010.

³ Seyyed, et al. 2018.

⁴ Jiang L, et al.2012.

Cluster 9 covers the topic of medical education with a clinical ethics approach. Clinical ethics, as one of the main pillars of medical ethics that explains the ethical rules governing the doctor-patient relationship and emerging issues arising from new biomedical technologies, has confronted the medical community with a wide range of ethical issues, including experimental testing, genetics, organ transplantation, clinical examinations, medical reproduction, and providing necessary information to patients.

It seems that among the main axes of medical ethics, the need to expand and expand clinical ethics and institutionalize it in the comprehensive health system is the one that has received the attention of researchers.¹

In the following, in order to gain a more comprehensive and better insight into the structure of issues in the field of medical ethics, a strategic diagram was used. In this way, first, an abundance matrix and then a correlation matrix were created separately for each of the clusters.

Then, using the Ucinet software, the rank centrality and density of each cluster were calculated and the average of each cluster was obtained. In the next step, based on the data related to the centrality and density of each of the nine clusters (Table 2), a strategy diagram was designed. As can be seen in the table, clusters 1, 8, and 9 have the highest density and highest centrality, respectively.

This means that the informed consent cluster, which contains the most frequent key terms, has the highest centrality, both in terms of influence and connection with other topics, as well as linkages between other key terms. A schematic diagram of the clusters resulting from medical ethics research is presented in Figure 3.

The strategic diagram has a horizontal axis representing centrality (the degree of cluster cohesion) and a vertical axis representing density (the degree of internal connection strength of each cluster).

Clusters 1, 8, and 9 (medical futility and informed consent) are located in section 1 of the diagram. These clusters are pivotal and have a high level of centrality and density compared to the other clusters. Cluster 6 (brain death and organ transplantation) is located in section 2 of the diagram. This cluster is not pivotal and is at a lower level in importance than the clusters in Section 1.

Clusters 2, 3, 4, and 5 are located in Section 3 of the diagram, and are at a lower level than the other clusters in terms of both centrality and density. These clusters are emerging and underdeveloped. Cluster 7 (Palliative care with an end-of-life approach) is an immature and underdeveloped cluster in Section 4 of the diagram.

5. Discussion

¹ Abbasian and Abbasi,2009.

Price, in his book *Little Science, Big Science* (1963), a seminal work in information science, noted that the number of scientific articles doubles every fifteen years. Such a rate of growth cannot be attributed to a single factor, and it can be concluded that this growth is part of the nature of science.¹

An examination of the results obtained also shows that the process of scientific production in the field of medical ethics has been on the rise². In line with the research results, the growth of scientific resources in other subject areas³(15, 17, 9-10) has been confirmed in recent years. The research findings showed that the key terms,⁴ bioethics and informed consent, are the most widely used terms among the studies in the field of medical ethics.⁵

Therefore, it seems that the field of bioethics has contributed a lot to the research in medical ethics. The results showed that the structure of the synonym network of the field of medical ethics and other thematic areas obtained formed a continuous and coherent network in terms of the intellectual structure network of the field, which in a way strengthens the intellectual and spiritual structure of this field.

The use of hierarchical clustering analysis to identify the intellectual structure in the field of medical ethics led to the formation of 9 thematic clusters. Multiple clusters created by sharing common characteristics within each group have a structural relationship with each other.

Therefore, paying attention to the clustering of topics in the field of medical ethics can help identify trends and understand the basic concepts of this field, and ultimately contribute to the growth and development of this field. Among the clusters that emerged, the cluster of medical education with a clinical ethics approach (Figure 2) appeared to be the main area of focus of all the topics.

Clinical ethics is one of the three main axes of medical ethics that covers the issue of recognizing, analyzing, and resolving value conflicts that arise during medical care in hospitals and medical centers.⁶

Table 1: Ranking of key terms in the field of medical ethics based on frequency

<i>Rank</i>	<i>Keyword</i>	<i>Abundance</i>	<i>Rank</i>	<i>Keyword</i>	<i>Abundance</i>
1	Bioethics	127	11	Research ethics	43
2	Informed consent	156	12	Patient autonomy	38

¹ Price,1963.

² Makkizadeh,2019.

³ Hu Y-,et al.2013

⁴ Baji, el al.2018.

⁵ Hsu WC.,2018

⁶ Abbasian and Abbasi,2009.

3	Physician Patient relationship	89	13	Clinical ethics	37
4	Autonomy	86	14	End of life care	36
5	Medical ethics education	80	15	Human rights	36
6	Euthanasia	71	16	End of life	32
7	Medical education	69	17	Confidentiality	31
8	Decision making	66	18	Clinical trials	29
9	Professionalism	50	19	Professional ethics	29
10	Palliative care	43	20	Conflict interest	28

Table 2: Density and centrality of clusters obtained from synonym analysis

Cluster	Centrality	Density
Anesthesia in Medicine	8/3	3/66
Doctor-Patient Relationship	2/46	2/3
Ethics in Medical Research	0.890	0.866
Medical Profession and Ethics	1	0.833
Easy Death	1	1/90
Brain Death and Organ Transplantation	3/33	0.5
Palliative Care with an End-of-Life Approach	2/6	3/16
Informed Consent	7/16	7/66
Medical Education with a Clinical Ethics Approach	8/3	3/66

Key discussions and explanations that influenced the formation of the clusters were described and their role is discussed in the relevant sections in the Findings section. The strategic diagram resulting from the analysis of the similarities in the field of medical ethics showed that the topics of futility in medicine, informed consent, and medical education with a clinical ethics approach are located in section 1 of the strategic diagram, which means that the aforementioned clusters have a central role in medical ethics studies and are expanding, which seems to be due to their similar nature.

contain recurring topics and seem to be part of the main clusters, the reason for this is the relatively low density in this cluster, which indicates weak connectivity of topics within these clusters.

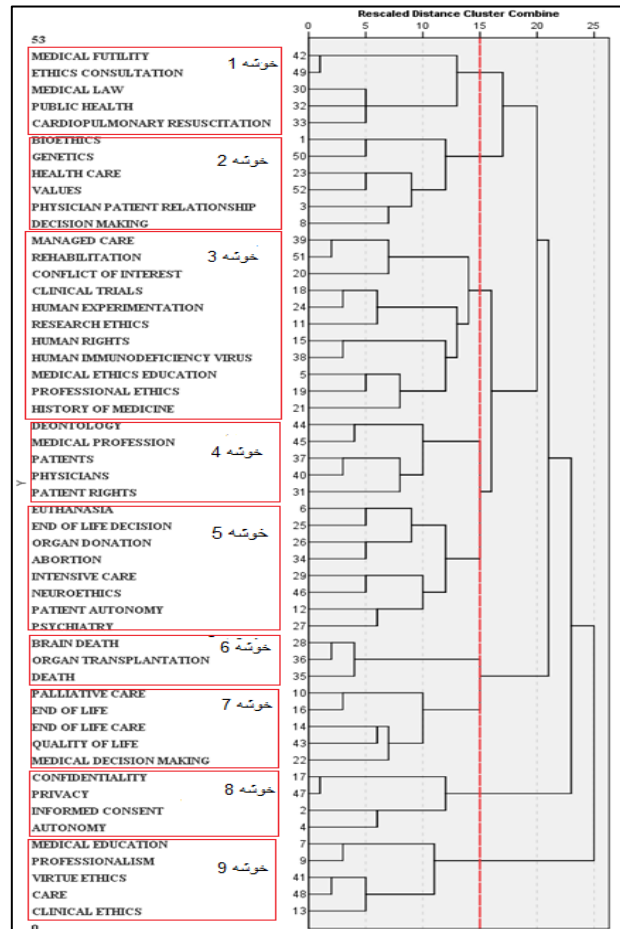


Figure 2: Diagram (dendrogram) resulting from hierarchical clustering using the synonymy method in the field of medical ethics

Another finding in the strategy diagram is the presence of a minor cluster “Palliative care with an end-of-life approach”. This result is consistent with the study by Abbasi et al.¹ because in the aforementioned study, which examined articles in this field from 1991-2013, they also mentioned the categories of palliative care and spiritual health as new concepts in the medical institution and stated that, although research on this topic is growing, the number of studies is not large. The topics of this cluster have the potential to become topics of the main clusters.

6. Conclusion

Discovering conceptual relationships between documents in a scientific field is a complex process, so the results obtained from it also require deep understanding. This problem is more common in

¹ Abbasi, et al. 2014.

most interdisciplinary fields. Therefore, analyzing this field from any perspective, whether through the methods presented in this study or other methods, is challenging, and its results may not be universally accepted, but the process of this type of research, which is carried out with the aim of understanding a scientific field, ultimately leads to its strengthening and management. In general, the method of explicit and systematic assimilation makes it possible to present the structure of the internal and external relations of thematic factors objectively and without exaggeration. This issue can help to understand the structure of thematic relations in a field.

Therefore, by using the results obtained from the present study, it is possible to gain information about the current situation, research topics and the relationship between them, and important terms in the field of medical ethics and provide clear analyses.

The results of the present study revealed that the conceptual structure of knowledge in medical ethics research using science visualization approaches played a more colorful role in nine clusters, and in some discussions and concepts such as abortion, the foundations of medical ethics in Islam and the West, simulation, sterilization, and vacuum, it is felt that researchers in the field of medical ethics could pay more attention to such issues.

Also, considering the capabilities of scientometric studies, the use of other methods such as citation analysis, journal citation, author citation, and the like can provide a more telling picture of medical ethics research.

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Azərbaycanda Peşə Təhsilinin İnkişafına Dövlət Qayğısı

State Care for the Development of Vocational Education in Azerbaijan

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Xülasə:

Məqalədə ölkəmizdə peşə təhsilinin inkişafı məqsədilə həyata keçirilən tədbirlər və onların peşə təhsilinin inkişafına dəstəyinə dair məsələlər təhlil edilir. Peşənin ictimai əhəmiyyəti haqqında elmi-pedaqoji ədəbiyyatda yer alan fikirlər təhlilə cəlb edilmişdir. Yaradılmış Peşə təhsili Agentliyinin fəaliyyəti və peşə təhsilinin inkişafında həyata keçirilən sistemli və mütəşəkkil fəaliyyətdən bəhs edilir. Azərbaycanda peşə təhsilinin inkişafı həm iqtisadi, həm də sosial sahələrdə müsbət təsir göstərərək mühüm əhəmiyyət kəsb edir. Azərbaycanda peşə təhsilinin inkişafını dəstəkləyən dövlət proqramları və təşviqlər də həyata keçirilir. Bu məqsədlə gənclərin peşə təhsili almağa yönəldilməsinə dair təqaüd proqramları, stimullaşdırıcı tədbirlər və işlə təmin olunma proqramları tətbiq edilir. Bu, peşə təhsilinə olan marağı artırır və təhsili daha əlçatan edir.

Açar sözlər: peşə təhsili, təhsilin inkişafı, sistemli fəaliyyət, peşə psixologiyası, dövlət proqramları

Abstract:

The article analyzes the measures implemented for the development of vocational education in our country and issues related to their support for the development of vocational education. The analysis includes opinions on the social significance of the profession in scientific and pedagogical literature. The activities of the established Agency for Professional Education and the systematic and organized activities carried out in the field of development of vocational education are discussed. The development of vocational education in Azerbaijan has a positive impact on both the economic and social spheres and is of great importance. Azerbaijan implements state programs and benefits that support the development of vocational education. For this purpose, scholarship programs, incentive measures and employment programs are

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implemented to help young people obtain vocational education. This increases interest in vocational education and makes education more accessible.

Key words:

professional education, development of education, systemic activity, professional psychology, state programs

Ümumtəhsil məktəbləri və eləcə də məktəbdənkənar tərbiyə müəssisələri bu vəzifələri özünün fəaliyyətində bütünlüklə qəbul edərək, şagirdlərin müstəqil həyata hazırlanmalarında və peşə seçməyə istiqamətləndirilməsində mühüm işlər görür. Dərs prosesində, məşğələlərdə, dərnəklərdə, xüsusi bölmələrdə uşaqların bilik və bacarıqlarının möhkəmlənməsinə və inkişafına xüsusi diqqət göstərilir. Məktəbdə müxtəlif fənlərdən alınan biliklər daha da möhkəmləndirilir.

Peşənin ictimai əhəmiyyətini V.D.Şadrikov (1) vurğulayır və bildirir ki, o, peşəni müəyyən tarixi məzmunla malik olan və ümumi ictimai istehsal sistemində müəyyən yer tutan konkret ictimai istehsal fəaliyyətinin bir növü hesab edir.

Peşəkar hadisələrin öyrənilməsi psixoloji ədəbiyyatda, peşə psixologiyası və sosioloji mənbələr çərçivəsində kifayət qədər uğurla həyata keçirilir. Müəllif-psixoloqlar peşəkar özünüdərk formalaşmasında və inkişafında psixoloji amilləri nəzərə alır, şəxsiyyətin inkişafında peşəkar fəaliyyətin rolunu təhlil edir, peşə fəaliyyəti institutunun sosial əhəmiyyətini vurğulayırlar.

Peşə psixologiyasının görkəmli müasir tədqiqatçısı E.A.Klimov (2) vurğulayır ki, peşə öz sosial mənasında insanların əmək fəaliyyətinin sferasını müəyyən edən və əmək vasitələri və fəaliyyət üsulları, əmək funksiyaları, subyekt və sosial əmək şəraiti məhdudlaşdıran bir forma, normativ olaraq müəyyən edilmiş məqsədlərə və mövzu sahəsinə malik olan bir sistem kimi qəbul edilməlidir.

Xarici elmi ədəbiyyatın təhlili göstərir ki, onlarda peşə anlayışı da birmənalı deyil. Bir çox müəlliflər üçün peşənin subyektiv psixoloji aspektinə diqqət yetirmək səciyyəvidir: peşə insanın fərdi keyfiyyətlərinin məcmusu kimi başa düşülür. Bəzi əsərlərdə, əsasən lüğətlərdə peşə insanın obyektiv və mənəvi fəaliyyətində özünü göstərən bilik və bacarıqlarının vəhdəti kimi müəyyən edilir.

Peşənin struktur-funksional modelində müəyyən bir peşə fəaliyyəti çərçivəsində cəmiyyətin mədəni dəyərlərinin ötürülməsi funksiyası həlledici rol oynayır. T.Parsons yazırdı: “Mən peşə dedikdə rol kateqoriyasını başa düşürəm, onun məşğuliyyəti cəmiyyətin mədəni ənənəsinin hər hansı mühüm hissəsinə, o cümlədən onun əbədiləşdirilməsi və gələcək inkişafı üçün məsuliyyətə mükəmməl sahibliyə və etibar edilmiş məsuliyyətə əsaslanır” (3, 43). Bununla belə, əksər xarici əsərlərdə peşə tələffüz olunan maddi xüsusiyyətləri və spesifik sosial funksiyaları olan sosial qrupun xüsusi növü kimi müəyyən edilir. A.K.Markova peşənin aşağıdakı substantiv komponentlərini müəyyən edir: “1) konkret peşə qrupunun nümayəndələrinin malik olduğu güc; 2) cəmiyyətdə təsir, nüfuz; 3) xüsusi bilik, təhsil sistemi; 4) özlərini bu peşənin bir hissəsi hesab

edən insanlar üçün qaydalar və davranış normaları sistemini təyin edən bir növ korporativ-bürokratik strukturun, peşəkarlar cəmiyyətinin olması; 5) peşəkar mədəniyyət” (4, 40).

Müasir elmi ədəbiyyatda “peşə” anlayışının yuxarıda göstərilən və digər təriflərinin təhlili nəticəsində peşə fenomeninin özünün mühüm xüsusiyyətlərini əks etdirən aşağıdakı yanaşmaları ayırd etmək olar:

1) fəaliyyət (iqtisadi) yanaşma: insanların əmək bölgüsü və onun funksional məzmunu ilə müəyyən edilən sosial əhəmiyyətli əmək fəaliyyəti növü kimi peşə;

2) təbəqələşmə (sosioloji) yanaşma: bir növ məşğuliyyət və ya əmək fəaliyyəti ilə birləşən insanların böyük qrupu kimi peşə;

3) şəxsi (psixoloji) yanaşma: insanın keyfiyyət tərfi kimi peşə, konkret (ümumi və xüsusi) biliklər, bacarıqlar, habelə insanın şəxsi keyfiyyətlərinin məcmusu.

Peşənin əksər tərifləri də beş əsas xüsusiyyəti ehtiva edir. Birincisi, peşə müəyyən bir fəaliyyətin qısa müddətli deyil, nisbətən uzunmüddətli, avtonom icrasıdır. İkincisi, bu, xüsusi təhsil və bacarıq tələb edən fəaliyyətdir. Üçüncüsü, peşə fəaliyyəti həm müəyyən peşələr daxilində, həm də onlardan kənarında müəyyən peşə davranışına gətirib çıxarır. Dördüncüsü, peşə fəaliyyətinin həyata keçirilməsi peşə marağının formalaşmasına gətirib çıxarır ki, bu da tez-tez peşə birlikləri və müəyyən peşələrin nümayəndələri üçün nizamnamələr vasitəsilə həyata keçirilir, bunun əsasında peşə əxlaqı və adət-ənənələri yaranır. Beşincisi, bir peşə nümayəndəsinin digər peşələrin nümayəndələrinə münasibətdə həm təşkilatçılıq, həm də sosial mənada xüsusi status göstərmək istəyi fərdin mənsub olduğu peşə ilə eyniləşməsinə səbəb olur.

“Təhsil haqqında Azərbaycan Respublikasının Qanunu”nun ümumtəhsil məktəbləri qarşısında qoyduğu mühüm sosial əhəmiyyətli vəzifələrdən biri də gənc nəslin planlı və şüurlu surətdə peşə seçməyə – müstəqil həyata hazırlanmasını təmin etməkdən ibarətdir (5).

“Texniki peşə təhsili sistemində təlim-tərbiyə prosesinin optimallaşdırılması, şagirdlərin əmək tərbiyəsi, əməyə yaradıcı münasibətinin formalaşdırılması, peşəyönümü işinin yüksəldilməsi və səmərəliliyinin artırılması üçün həm də texniki peşə təhsili pedaqogikasının inkişafını öyrənmək, aparılmış tədqiqatların əsas istiqamətlərini müəyyənləşdirmək, qazanılmış uğurları daha da inkişaf etdirmək və müasir texniki peşə məktəblərində tətbiqinə nail olmaq zəruri və vacibdir” (6, 448).

Ölkəmizdə texniki peşə təhsilinin inkişafı, yeni keyfiyyətli kadrların təlim-tərbiyəsi həmişə dövlətin diqqət mərkəzində olmuşdur.

Müstəqillik illərinin başlanğıc mərhələsində, 90-cı ilin əvvəllərində texniki peşə təhsili sahəsində müəyyən problemlər yarandı. “Azərbaycan ərazisinin 20 faizinin ermənilər tərəfindən işğal olunması nəticəsində öz yurdundan didərgin düşən qacqınlar Bakı, Sumqayıt və Gəncə şəhərlərindəki texniki peşə məktəblərinin yataqxanalarında yerləşdirildi. İşğal olunmuş ərazilərdəki texniki peşə məktəbləri erməni faşistləri tərəfindən dağıdıldı. Ulu öndər Heydər

Əliyevin siyasi hakimiyyətə gəlişi nəticəsində başqa istiqamətlərdə olduğu kimi texniki peşə təhsili sistemində də dəyişikliklər edildi. Nazirlər Kabinetinin 23 avqust 1996-cı il tarixli qərarı mühüm rol oynadı. Həmin qərarla texniki peşə təhsili sisteminin əsas istiqamətləri müəyyənləşdirildi, peşə tədris müəssisələrinə “peşə məktəbi” statusu verildi. Daha sonra “Azərbaycan Respublikasında texniki peşə təhsilinin inkişafı üzrə Dövlət Proqramı (2007-2012-ci illər) ölkə Prezidenti tərəfindən 3 iyul 2007-ci ildə təsdiq edildi. Dövlət Proqramının əsas məqsədi iqtisadi və sosial baxımdan səmərəli olmaqla ölkə iqtisadiyyatının peşə-ixtisas kadrlarına yaranan tələbatının ödənilməsi və əhalinin müasir peşə təhsili almaq imkanlarının təmin edilməsi kimi əsas iki şərti ödəyən texniki peşə təhsili sistemini formalaşdırmaqdan ibarət idi” (6, 449).

Ölkəmizdə peşə təhsilinin inkişafı məqsədilə davamlı olaraq tədbirlər həyata keçirilmişdir. Bu fəaliyyətin daha da təkmilləşməsi və yenilənməsi məqsədilə agentlik yaradılmışdır.

Azərbaycan Respublikasının Prezidenti İlham Əliyev tərəfindən 24 aprel 2018-ci ildə “Peşə təhsili haqqında Azərbaycan Respublikasının Qanunu” qəbul edilmişdir. Qəbul edilmiş bu qanun “Azərbaycan Respublikasında peşə hazırlığının səmərəliliyinin artırılması və rəqabətqabiliyyətli ixtisaslı kadrların hazırlanması məqsədilə peşə təhsili sahəsində dövlət siyasətinin prinsiplərini, peşə təhsili və təlimi sisteminin təşkilatı-hüquqi və iqtisadi əsaslarını müəyyən edir” (7). Qanunvericilikdə peşə təhsilinin mahiyyəti belə açıqlanır: “7.1. Peşə təhsili Azərbaycan Respublikasında fasiləsiz təhsil sisteminin pilləsi kimi fərdin, cəmiyyətin və dövlətin maraqları nəzərə alınmaqla davamlı inkişaf etdirilən və təhsilalanlar tərəfindən bilik, bacarıq və vərdişlərin mənimsənilməsini, onların ixtisaslarının daim artırılmasını, eyni zamanda, zəruri əmək bacarıqlarına yiyələnmələrini təmin edən prioritet fəaliyyət sahəsidir. 7.2. Peşə təhsili təhsilalanların tərbiyəsinin mənəvi və bəşəri dəyərlər ruhunda, dövlət maraqları və azərbaycançılıq məfkurəsi əsasında formalaşdırılmasını təmin edir” (7).

Qeyd olunmalıdır ki, ölkəmizdə 72 peşə təhsili müəssisəsində 136 ixtisas üzrə 1580 nəfər ilk peşə təhsili üzrə, 27511 nəfər texniki peşə təhsili üzrə, 2415 nəfər yüksək texniki peşə təhsili üzrə təhsil alır.

“Peşə təhsili müəyyən bir sahədə ixtisaslı işçi qüvvəsinin hazırlanmasını təmin edən təhsil pilləsidir. Bu təhsil pilləsi tələbələrin peşə və texniki bilikləri, bacarıqları və səriştələri əldə etmələrini təmin edərək onları əmək bazarına hazırladır. Peşə təhsili adətən orta məktəbdən sonra verilir və müxtəlif peşə sahələrində (məsələn, sənaye, xidmət sektoru, texnologiya və s.) işə hazırlıq məqsədi daşıyır. Peşə təhsili sistemində, şagirdlər həm nəzəri bilikləri, həm də praktiki bacarıqları əldə edirlər. Bu təhsil növü həm də iş həyatına inteqrasiya olunma müddətini qısaltmaq üçün nəzərdə tutulub. Peşə təhsilinin əsas məqsədi işəgötürənlərin tələblərinə uyğun gələn kadrların hazırlanması və işsizlik səviyyəsinin azaldılmasıdır” (8).

Azərbaycanda peşə təhsilinin inkişafı, həm iqtisadi, həm də sosial sahələrdə müsbət təsir göstərərək mühüm əhəmiyyət kəsb edir. Son illərdə bu sahəyə yönəldilən diqqət və həyata keçirilən islahatlar, ölkənin əmək bazarının tələblərinə uyğun olaraq peşə təhsilinin keyfiyyətini

və əlçatanlığını artırmağı hədəfləyir. Azərbaycanda peşə təhsilinin inkişafına təsir edən əsas amillər və həyata keçirilən yeniliklər aşağıdakı kimi təqdim oluna bilər:

1. Peşə təhsilinin əhəmiyyətinin artırılması nəticəsində Azərbaycanda peşə təhsilinin əhəmiyyəti son illər artmağa başlayıb. Əvvəllər ali təhsil, daha çox üstünlük verilən sahə olarkən, indi peşə təhsili də diqqət mərkəzindədir. Bu dəyişiklik, həm əmək bazarının tələblərinə cavab vermək, həm də gənclərin işsizlik problemini həll etmək məqsədini güdür.

2. Azərbaycan hökuməti, 2007-ci ildən başlayaraq peşə təhsilinin inkişafı üçün genişmiqyaslı islahatlar həyata keçirilib və yeni proqramlar qəbul edilib. Bu islahat-lar çərçivəsində peşə təhsilinin müasir tələblərə uyğunlaşdırılması, təhsil proqramla-rının yenilənməsi və tədris metodlarının təkmilləşdirilməsi məqsəd qoyulub.

3. Azərbaycanda peşə təhsili müəssisələrinin infrastrukturunu və tədris şəraiti modernləşdirilməkdədir. Peşə məktəbləri və ixtisaslaşmış təhsil mərkəzləri yeni avadanlıq və texnologiyalarla təchiz olunur. Bu da tələbələrə daha müasir və praktik bacarıqlar əldə etməyə imkan yaradır.

4. Peşə təhsilinin inkişafında sənaye və iş dünyası ilə sıx əməkdaşlıq çox mühüm rol oynayır. Bu əməkdaşlıq sayəsində, peşə məktəbləri və təhsil mərkəzləri müvafiq sahələr üzrə təcrübə proqramları təşkil edir və tələbələrə iş yerində praktik təcrübə qazanmaq imkanı verir. Eyni zamanda, əmək bazarının ehtiyacları nəzərə alınaraq peşə təhsilinin proqramları da daim yenilənir.

5. Azərbaycanda peşə təhsilinin inkişafı istiqamətində beynəlxalq əməkdaşlıq da genişlənilib. Dövlət, Avropa İttifaqı və digər beynəlxalq təşkilatlarla əməkdaşlıq edərək, tədris proqramlarını dünya standartlarına uyğunlaşdırır və gənclərin beynəl-xalq əmək bazarına uyğunlaşmalarını təmin edir.

6. Azərbaycanda peşə təhsilində müasir tədris metodları tətbiq olunur. Ənənəvi sinif otağı təlimlərinə əlavə olaraq, əyani təlimlər, simulyasiyalar və onlayn kurslar da inkişaf etdirilir. Bu yanaşma, gənclərin müxtəlif üsullarla bilik əldə etmələrini təmin edir.

7. Peşə təhsilində keyfiyyətin artırılması və şəffaflığın təmin edilməsi məqsədilə müvafiq qaydalar və standartlar tətbiq olunur. Təhsil müəssisələrinə dövlət tərəfindən müəyyən edilmiş kriteriyalar əsasında reyting verilərək, təhsil keyfiyyəti izlənilir və davamlı olaraq təkmilləşdirilməsi təmin edilir. Bu, tələbələr yüksək səviyyəli təhsil almağa şərait yaradır.

8. Azərbaycanda peşə təhsilində gender bərabərliyinə və inkluzivliyə də xüsusi diqqət yetirilir. Qızların və oğlanların eyni şəkildə peşə təhsilini alması təşviq edilir və fiziki imkanları məhdud olan şəxslər üçün xüsusi təhsil proqramları yaradılır. Bu yanaşma, peşə təhsilinin geniş təbəqələrə çatdırılmasını təmin edir.

9. Azərbaycanda peşə təhsilinin inkişafını dəstəkləyən dövlət proqramları və təşviqlər də həyata keçirilir. Məsələn, gənclərin peşə təhsili almağa yönəldilməsi məqsədilə təqaüd proqramları, stimullaşdırıcı tədbirlər və işlə təmin olunma proqramları tətbiq edilir.

10. Azərbaycanda peşə təhsilinin inkişafı, həm sosial, həm də iqtisadi baxımdan mühüm əhəmiyyət kəsb edir. Bu sahədə həyata keçirilən islahatlar, müasir tədris metodlarının tətbiqi, iş dünyası ilə əməkdaşlıq və beynəlxalq təcrübə mübadiləsi gənclərin gələcək karyeralarına müsbət təsir edir. Peşə təhsilinin inkişafı, ölkə iqtisadiyyatının güclənməsi və işsizlik probleminin azaldılması baxımından mühüm rol oynayır. Bu sahədə görülən işlər, həm də gənclərin daha ixtisaslaşmış və rəqabət qabiliyyətli bir işçi qüvvəsinə çevrilməsinə imkan verir.

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The Afghan Crisis and Afghan Refugees, Challenges and Solutions from the Perspective of International Law

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Abstract:

Based on the Doha Agreement signed on February 29, 2020 between the Taliban and the United States of America, the two parties committed to stopping attacks on each other. The United States committed to withdrawing all its military and civilian forces and those of its allies from Afghanistan within 14 months. The Taliban also pledged to cut off cooperation with terrorist groups, including al-Qaeda, and pledged to reduce the intensity of its attacks and to advance peace talks with the Afghan government.

While this agreement was expected to end nearly two decades of military conflict in Afghanistan. However, the Taliban's increased attacks on military and civilian targets have continued to the point where Afghan cities have fallen one after another; The then Afghan president fled to Abu Dhabi, and Kabul fell to the Taliban within hours. Meanwhile, despite assurances issued by the Taliban, many Afghans were trying to leave the country.

This has caused the world to once again face an international refugee crisis, raising the question of how international law can manage such a situation; what are the commitments of member states of the international community, and what are the potential gaps and challenges.

Key words: Afghanistan, refugees, Taliban, America, International Law

Introduction

Before answering these questions, it is first necessary to point out that the United Nations Convention Relating to the Status of Refugees (1951) and its Additional Protocol (1967), as the only international treaties containing strict obligations, do not contain any provisions on the obligations of States in relation to the influx of asylum seekers.

Therefore, possible solutions should be sought in other international instruments, including documents and guidelines prepared by the United Nations High Commissioner for Refugees (hereinafter: UNHCR), resolutions issued by its Executive Committee, resolutions of the United Nations General Assembly, and some initiatives taken by States.

It is also important to note that the term “asylum seekers” in this article refers to all individuals who, based on their employment history, personal experiences, religious beliefs, sexual orientation, and gender identity, etc., do not consider Afghanistan safe for them to continue living

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in, despite the guarantees provided by the Taliban forces. Whether or not their fear of facing persecution by the Taliban forces is recognized as justified during individual trials.

1. Granting refugee status on a group basis¹

The 1996 Handbook on Principles and Criteria for Determining Refugee Status, which is one of the most important supplementary instruments to the 1951 Convention and the 1967 Protocol, recommends that States, when faced with situations of large numbers of asylum seekers, where it is not practicable to determine the status of individuals individually, resort to group determination of refugee status. Thus, each member of the group of asylum seekers was recognized as a refugee *prima facie*² (i.e., in the absence of evidence to the contrary).³

According to the UNHCR Guidelines on International Protection (2015), granting this type of asylum is appropriate in cases where either the number of asylum seekers in need of international protection at international borders is so large that it is not possible to respond to their individual claims in the short term, or the asylum seekers, although not very numerous, are composed of individuals who are all exposed to the same risk. They have, which can be due to ethnicity, gender, religion, age, place of residence, political activity, or a combination of these; something that currently also seems to be relevant to the situation of Afghan refugees.⁴

However, the point that may raise doubts about the adoption of this approach towards Afghan asylum seekers by neighboring countries is that (unlike temporary protection, which will be discussed below) individuals who are recognized as refugees in this way enjoy all the rights set out in international instruments (and regional ones, if any), and their refugee status cannot be terminated except in accordance with the provisions of those instruments. Documents are not available.⁵

2. Temporary protection for asylum seekers

The UNHCR Guidelines on Temporary Protection or Provisions for Refugees, 2014, for situations such as large-scale inflows of asylum seekers, large-scale border movements, and transitional or fluid situations (such as in Afghanistan, where the crisis has just begun and the nature of the movements is unclear) and generally for situations where the determination of the In the event that the situation of individuals is impossible or unworkable, temporary protection or provisions for short-term stay of asylum seekers in the border areas of neighboring countries are envisaged.⁶

These guidelines require States to accept refugees or vulnerable populations into their territories, make necessary and immediate arrangements for their resettlement, and ensure their access to

¹ group-based protection.

² *prima facie* refugees.

³ UNHCR, Handbook on Procedures and Criteria for Determining Refugee Status under the 1951 Convention and the 1967 Protocol relating to the Status of Refugees, para 44.

⁴ UNHCR, Guidelines on International Protection No. 11 : *Prima Facie* Recognition of Refugee Status, 24 June 2015, HCR/GIP/15/11, paras. 9, 10, available at: <https://www.refworld.org/docid/555c335a4.html> [accessed 20 August 2021].

⁵ *Ibid*:para7.

⁶ UNHCR, Guidelines on Temporary Protection or Stay Arrangements, February 2014, paras. 9, 10, available at: <https://www.refworld.org/docid/52fba2404.html> [accessed 20 August 2021].

security, education, health care, food, and shelter, and to continue to support them until the situation in the country affected by the crisis has calmed down or the population has found durable solutions.¹

This type of protection, which is also referred to in some documents² as temporary asylum³ (1) (2), is also a precedent for states; In the case of Cambodian refugees (1979), Costa Rica and Honduras (1981), Guatemalan refugees (1985), and Tamil refugees (1985), some jurists refer to it as a norm of customary international law (Fitzpatrick Hartman, 1986, 89). Iran also used this method to support Afghan refugees during the US invasion of Afghanistan. (Kihanlu, 151, 2003),

-3 State initiatives, individual approaches

In addition to the two approaches above, in some cases, states have taken their own initiatives to support specific grievances of individuals. For example, in the 1970s, following the fall of Saigon in 1975, the US government deported Vietnamese asylum seekers from Vietnam and resettled most of them in the US on special immigrant visas.⁴ (3) A similar approach was taken in 2008 to deport Iraqi translators from that country and transfer them to the US. Apparently, the US government intends to use this method to deport those Afghans who have cooperated with them for at least two years during their presence in Afghanistan. About twenty thousand Afghans have been issued special immigrant visas, and it is estimated that another seventy thousand Afghans are eligible to apply for this type of visa. (Runde, 2021).

Similarly, in April 2021, England adopted a policy of relocation and assistance to Afghans in order to remove those who are in a position to do so from Afghanistan.⁵ 4. The difference between adopting such policies and previous cases is that, according to the original news, the individuals who have been removed from Afghanistan by US forces have been resettled in other countries such as Uganda, Albania, Macedonia, and Kosovo, not in the United States. Apparently, this measure was taken at the request of the United States and is only for a limited period of time. (ISNA News, 2021). However, since the aim of these measures is to protect the target groups from potential dangers, they cannot be considered contrary to the commitments of the United States.

Conclusion

¹ Ibid., paras. 13, 16, 21; See also Protection of Asylum-Seekers in Situations of LargeScale Influx No. 22 (XXXII) 1981, available at:

<https://www.unhcr.org/excom/exconc/3ae68c6e10/protection-asylum-seekerssituations-large-scale-influx.html> [accessed 20 August 2021]; UNHCR, The scope of international protection in mass influx EC/1995/SCP/CRP.3, 02 June 1995, available at:

<https://www.unhcr.org/excom/scip/3ae68cc018/scope-international-protection-massinflux.html> [accessed 20 August 2021]; UNHCR, Global Consultations on InternationalProtection/Third Track: Protection of Refugees in Mass Influx Situations: Overall Protection Framework, 19 February 2001, EC/GC/01/4, available at :<https://www.refworld.org/docid/3bfa83504.html> [accessed 20 August 2021].

² Temporary refuge.

³ See for example: UNHCR Executive Committee, Conclusion 19 (XXXI), 1980.

⁴ Special Immigrant Visa.

⁵ Afghan Relocations and Assistance Policy: further information on eligibility criteria and offer details (updated 4 June 2021), available at: <https://www.gov.uk/government/publications/afghan-relocations-and-assistance-policy/afghan-relocations-and-assistance-policy-information-and-guidance>, [accessed 21 August 2021].

According to what has been said, there is no clear approach in international treaties to deal with crises such as the current Afghan refugee crisis. However, from the documents and guidelines of the UNHCR and the practices of the states, two approaches can be taken: granting group asylum to asylum seekers or providing them with temporary protection, both of which are based on humanitarian considerations.

Thus, under the current circumstances, it seems that the main burden of responsibility for helping Afghan asylum seekers lies with that country's neighbors. These countries could help to alleviate the crisis by opening their borders, as recommended by the UNHCR¹ (1), and by granting group asylum or providing temporary support. In parallel with these measures, the United States, Britain and other countries that are seeking to remove certain groups from Afghanistan should negotiate with the Taliban forces to Expedite, give greater speed and order to the exit process.

In addition, considering the emphasis of international instruments on the need to prevent the imposition of severe pressures on host communities and the participation of all member states of the international community in sharing the responsibilities and burdens arising from the influx of refugees, other countries should also provide material and non-material assistance to Afghanistan's neighbors in fulfilling their duties as best as possible in a safe and secure environment in accordance with The human dignity of asylum seekers should be supported. UNHCR can be the best point of contact for coordinating such assistance.

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¹ UNHCR, Statement by Principals of the Inter-Agency Standing Committee (IASC) on Afghanistan, 19 August 2021, available at: <https://www.unhcr.org/asia/news/press/2021/8/611e1cc738/statement-principals-interagency-standing-committee-iasc-afghanistan.html>, [accessed 21 August 2021].

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A Review of International Policymaking in the Field of Artificial Intelligence

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Abstract:

Based on the Doha Agreement signed on February 29, 2020 between the Taliban and the United States of America, the two parties committed to stopping attacks on each other. The United States committed to withdrawing all its military and civilian forces and those of its allies from Afghanistan within 14 months. The Taliban also pledged to cut off cooperation with terrorist groups, including al-Qaeda, and pledged to reduce the intensity of its attacks and to advance peace talks with the Afghan government.

While this agreement was expected to end nearly two decades of military conflict in Afghanistan. However, the Taliban's increased attacks on military and civilian targets have continued to the point where Afghan cities have fallen one after another; The then Afghan president fled to Abu Dhabi, and Kabul fell to the Taliban within hours. Meanwhile, despite assurances issued by the Taliban, many Afghans were trying to leave the country.

This has caused the world to once again face an international refugee crisis, raising the question of how international law can manage such a situation; what are the commitments of member states of the international community, and what are the potential gaps and challenges.

Key words: Afghanistan, refugees, Taliban, America, International Law

1 Introduction

The world we live in today is in many ways like a wonderland, similar to the world described by the English mathematician Charles Lutwidge Dodgson in his famous novels. Image processing, Lewis Carroll's smart speakers, Charles Lutwidge Dodgson's *The Little Mermaid*, and self-driving cars have all been made possible by advances in artificial intelligence (AI)—the ability of a system to correctly interpret external data, learn from that data, and use that learning. AI emerged as an academic discipline in the 1950s and remained in relative obscurity and limited practical interest for more than half a century.

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Today, AI has entered the business and public discourse space due to the emergence of big data and advances in computing power. AI can be classified into micro, general, and super AI according to cognitive, emotional, and social types. All of these types have common features, and the differences between them often lie in the different uses of AI. (Kaplan and Hanalin, 2019).

But when AI becomes commonplace, sensitivities about it often diminish and it becomes a tool. This phenomenon is described as the “AI effect,” which occurs when viewers discount the behavior of an AI program by arguing that it is not real intelligence. As science fiction writer Arthur Clarke put it, “Any sufficiently advanced technology is indistinguishable from but when we understand the technology, the magic disappears” (Carleton et al., 2020).

At regular intervals since the 1950s, experts have predicted that it would be only a few years before we reached artificial general intelligence, that is, systems that exhibit behavior that is indistinguishable from humans in all respects and possess cognitive, emotional, and social intelligence (McCarthy and Hayes, 1981).

But to better understand what is possible, we can look at AI from two angles: the path that has already been taken and what is still ahead of us. We will continue to examine the history of the ups and downs of AI technology, and then we will examine the present and outline the challenges ahead.

2 History of Artificial Intelligence

2.1 The Birth of Artificial Intelligence

Although it is difficult to pinpoint exactly, the origins of artificial intelligence can be traced back to the 1940s, especially 1942, when American science fiction writer. Isaac Asimov (1941) published the short story "The Predicament", "The Predicament" is a story about a robot created by engineers Gregory Powell and Mike Donovan that was developed around the Three Laws of Robotics:

- 1) A robot may not injure a human being or allow a human being to come to harm.
- 2) A robot must obey the orders given to it by a human being except where such orders would conflict with the First Law.
- 3) A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws. Asimov's work has inspired generations of scientists in the fields of robotics, artificial intelligence, and computer science. Among the cognitive scientists was Marvin Minsk who later became the founder of the MIT Artificial Intelligence Laboratory (Minsky, 1970).

At about the same time, the English mathematician Alan Turing was working on the problems of the Earth and developed an electromechanical computer called the "Bomb" to decipher the codes used in German bombs. This powerful machine was able to break the Enigma code used in German bombs, a task that was impossible even for the best mathematicians of the time. In 1950, Turing published his seminal paper "Computing Machinery and Intelligence" in which he described how to create intelligent machines and, in particular, how to test their intelligence. The Turing test is still used today as a criterion for identifying the intelligence of an artificial system. If a human

being interacts with another human and a machine and is unable to distinguish the machine from the human, the machine is said to be intelligent (Turing and Haglund,1950).

The word artificial intelligence was coined about six years later, in 1956, when Marvin Minsky and John McCarthy (a computer scientist at Stanford) participated in the Dartmouth Research Project on Artificial Intelligence which was funded by the Rockefeller Foundation. (11). They were later called the fathers of artificial intelligence. The project also included scientists such as Nathaniel Rochester who later designed the IBM 70 the first commercial scientific computer, and mathematician Claude Shannon the founder of information theory. The goal of Dartmouth was to reunite researchers from different fields to create a new field of research with the goal of creating machines that could simulate human intelligence (Rajerman, 2014).

2 The Rise and Fall of Artificial Intelligence

The Dartmouth Conference followed a nearly two-decade period of remarkable success in the field of artificial intelligence, exemplified by the famous computer program "Elise," created between 1964 and 1966 by Joseph Weizenbaum (2) at MIT. ELIZA was created as a natural language processing tool that could simulate a conversation with a human and was one of the first programs to pass the Turing test (Natali and Simpson2019).

Another early success story in AI was the General Problem Solving Artificial Intelligence (GPS) program developed by Nobel laureate Herbert Simon (19) and RAND Corporation scientists Cliff Shaw and Alan Newell which was able to automatically solve certain types of problems, such as the Towers of Hanoi game (Benko and Lányi. 2009).

As a result of these inspiring successes, significant funding was allocated to AI research, leading to the implementation of more projects. In 1970, Marvin Minsky gave an interview to Life magazine in which he stated that a machine with the general intelligence of an average human could be built within three to eight years. Just three years later, in 1973, the United States Congress expressed strong criticism of the high costs of AI research (Minsky and Papert 1972).

That same year, the English mathematician James Elthill published a report by the UK Scientific Research Council in which he questioned the optimistic outlook of AI researchers. Elthill argued that machines only reach the level of an experienced amateur at games such as chess, and that commonsense reasoning is always beyond their capabilities (Elthill, 1973). As a result, the British government ended support for AI research at all research centers except the three universities of Edinburgh, Sussex, and Essex, and the United States government quickly followed suit. This period was the beginning of the AI winter. Although the Japanese government began to spend a lot of money on AI research in the 1980s, which DARPA in the United States responded with increased funding, no further progress was made in the years that followed (Ronald et al., 1993).

3. The Fall of Artificial Intelligence

One of the reasons for the initial lack of progress in the field of AI and the failure to meet expectations is related to the way early systems, such as ELIZA and the General Problem-Solving Program, that attempted to emulate human intelligence performed. Specifically, they were all

expert systems, i.e., sets of rules that simulate human intelligence in a top-down approach as a series of “if-then” statements (Kaplan and Hanalin, 2019).

Expert systems can perform remarkably well, for example, the chess program “Dark Blue”, created by IBM in 1997, defeated world champion Garry Kasparov in the process proving one of James Elliott Hill’s predictions of 25 years earlier to be wrong. It is said that “Dark Blue” was able to process 200 million possible moves per second and determine the next optimal move using a method called tree search (Campbell et al., 2002).

However, expert systems have also had poor performance in some cases. For example, an expert system cannot be easily trained to recognize faces accurately (Hutson, 2018). 3. Such tasks require a system to be able to correctly interpret external data, learn from this data, and use this learning to achieve specific goals and tasks through flexible adaptation, the characteristics that define artificial intelligence.

Statistical methods for achieving true artificial intelligence have been proposed since the early 1940s, when Canadian psychologist Donald Hebb proposed a learning theory known as Hebbian learning¹ that mimics the functioning of neurons in the human brain (Hebb, 1949).

This theory led to the development of research on artificial neural networks. However, when Marvin Minsky and Simon showed that computers did not have the computational processing power required for such artificial neural networks, 47 papers of research on this theory stagnated in 1969.

The topic of artificial neural networks, in the form of deep learning², was reintroduced in 2015 with the production of a program called AlphaGo by Google. AlphaGo was able to defeat the world champion in the game of Go. The game of Go is much more complex than chess. For example, at the beginning, there were 20 different possible moves in chess, but this number is 361 in Go.

It was long believed that computers could never beat humans at this game. AlphaGo achieved its excellent performance using a special type of artificial neural network called deep learning (Silver et al., 2016). Today, artificial neural networks and deep learning are the basis of most programs known as artificial intelligence. They are the basis of image recognition algorithms in Facebook, speech recognition algorithms in smart speakers, and navigation algorithms in self-driving cars (Mishra and Srivastava, 2014). These capabilities are the result of past statistical advances in artificial intelligence that we find ourselves in today.

4 Present tense: Review of current topics in the field of artificial intelligence

As mentioned, artificial intelligence is entering human daily life at an increasing pace, like the Internet and social media. Therefore, artificial intelligence not only affects our personal lives but also fundamentally changes the way companies make decisions and interact with their stakeholders, such as employees and customers.

¹ Hebbian

² Seymour Papert

The question is what is the role of artificial intelligence in these developments and, more importantly, how can artificial intelligence and human systems work together peacefully. Which decisions should be made by artificial intelligence, which decisions by humans, and which decisions should be made in cooperation with each other. Issues that all companies must face in today's world.

The most important topics of the day in the field of AI include the relationship between companies and employees or the impact of AI in general on the labor market (Tambe, Copley, & Yakubovich,¹ 2019) economics and management in the next generation of AI (Huang, Rust, & Maksimovich², 2019)(4), organizational decision-making structures in the age of AI (Shersta, Ben-Manham, & von Krug, 2019), knowledge gathering through AI to improve business decision-making (Metcalf, Askay, & Rosenberg, 2019), the extent to which firms use AI in business (Brook & Wangenheim,³ 2019), the role of AI in marketing (Kumar, Rajan, Venkatsan, & Lechinsky,⁴ 2019), and the use of AI to solve marketing problems (Urgur, Chika, & Rando-Vishampel⁵, 2019).

3 The Future: The Need for Policymaking

3.1 Policymaking on Algorithms and Organizations

The fact that in the near future, AI systems will increasingly become part of our daily lives raises the question of what regulation is needed and how. Although AI is inherently objective and free from bias, this does not mean that AI-based systems cannot act biasedly.

In fact, due to the nature of AI, any bias present in the input data plays a role in training the AI system and may even be reinforced. For example, research has shown that sensors used in self-driving cars (Wilson, Hoffman, & Morgenstern, 2019) or decision support systems used by judges are better at recognizing light skin tones than dark ones, due to the type of images used to train these algorithms, and this feature may be racially biased (Angwin et al., 2016) Rather than trying to control AI, the best way to prevent such errors is probably to create accepted requirements for training and testing AI algorithms. There is also likely to be a need for some kind of warranty, similar to physical equipment, that provides consistent control.

Even as the technical aspects of AI systems improve over time, another issue is whether companies should be held accountable for errors in the algorithms they produce, or even whether AI engineers should be required to be ethically certified, as lawyers or doctors are. However, such rules cannot prevent the deliberate hacking of AI systems, the unintended use of these systems based on personality traits (Kesinski, Stillwell, & Greipel, 2013), or the production of fake news (Suwajanakorn et al., 2017).

Adding further complexity, deep learning, as a key technique in most AI systems, is inherently a black box. While it is straightforward to assess the quality of the output of such systems. For

¹ Tambe, Cappelli, & Yakubovich

² Huang, Rust, & Maksimovic

³ Brock & Wangenheim

⁴ Kumar, Rajan, Venkatesan, & Lecinski

⁵ spirit, Overgoor, Chica, Rand, & Weishampel

example, knowing the proportion of correctly classified images makes the deep learning process largely transparent.

The lack of transparency in AI processes can also be intentional, such as when a company wants to keep an algorithm secret or makes it impossible to publish due to technical complexity (Barrell, 2016) In any case, few people may care how Facebook's facial recognition algorithm works, but when AI systems are used to make diagnostic recommendations for skin cancer based on image analysis (Haenssle et al., 2018). understanding how such recommendations are derived becomes crucial.

2 Medium-term outlook: employment regulation

Just as the automation of manufacturing processes has led to the elimination of some tedious jobs, the increasing use of AI will also lead to a reduced need for clerical workers and even high-quality professional jobs. Image processing tools are already better than doctors at diagnosing skin cancer.

In the legal profession, this technology has also eliminated the need for large teams of lawyers to review millions of documents (Markoff, 2016). There have certainly been significant changes in job markets in the past. Such changes as those that have occurred during the Fourth Industrial Revolution, however, are not clear whether new jobs will necessarily be created in other areas to supply workers.

This is related, on the one hand, to the number of potential new jobs, which may be much smaller than the number of jobs lost; and, on the other hand, to the level of skill required for the new jobs. Just as a short story like *The Crossroads* can be seen as a starting point for artificial intelligence, another story can be more influential in shaping the global picture of unemployment. The fictional novel *Snow Crash* fall, published by the American author Neal Stephenson, describes a world in which people live their physical lives in storage units, surrounded by technological devices. While their real lives take place in a three-dimensional world called the metaverse where they appear as three-dimensional symbols. As fantastical as this story may seem, recent advances in virtual reality processing, along with past successes in virtual reality (Kaplan and Hanalin, 2009), have made this hobby more widely accepted around the world, making Stephenson's story seem far from utopian. Regulations may be a way to prevent job losses.

For example, firms could spend a certain percentage of the cost savings from implementing automation on training employees to perform new jobs that cannot be automated. Governments may decide to limit the use of automation. In France, self-service systems used by public administration bodies are only accessible during regular business hours. Or, companies may limit the number of working hours per day to distribute the remaining work evenly among the workforce.

3. Macro-Vision: Regulations for Democracy and Peace

AI can be used not only by private institutions or individuals, but also by governments. China is working on a social credit system¹ that combines surveillance, big data, and AI to create a digital

¹ Social Credit System

totalitarian state, allowing trusted individuals to operate freely anywhere in the country¹ while making it difficult for untrustworthy individuals to take a step² (Toyama, 2016). In contrast, San Francisco recently banned the use of facial recognition technology (Conger, Faus, & Kowalski, 2019), and researchers are working on solutions that act like a virtual invisibility cloak, making people undetectable to automated surveillance cameras (Thys, Van Ranst, & Godimi, 2019).

While China and, to some extent, the United States are trying to remove barriers to corporate use and research in AI, the European Union has taken the opposite direction by introducing a significantly restrictive General Data Protection Regulation (Voigt & Von dem Bussche,³ 2017).

This is likely to result in AI development in the EU slowing down compared to other regions, which in turn raises the question of how to balance economic growth with privacy concerns. As a result, international coordination of AI policymaking, similar to that which has been done in the case of money laundering or the arms trade, will be needed. The nature of AI is such that a local solution that affects only a few countries is unlikely to be effective in the long term.

4. Conclusion

No one knows whether AI will allow us to increase our intelligence, as Google's Raymond Kurzweil claims, or whether it will ultimately lead to World War III, a concern raised by Elon Musk. However, everyone agrees that it will lead to unique ethical, legal, and philosophical challenges that need to be addressed (Kaplan & Hanalin, 2019).

For decades, ethics has grappled with the trolley problem, a thought experiment in which an imaginary person must choose between inaction that kills many and activity that kills a few (Thomson, 1976). In a world of self-driving cars, these issues will become real choices for machines and their programmers (Awad, D'Souza, Kim, Schulz, Henrich, Sharif, Benfen, & Rahovan, 2018). In response, key players such as Mark Zuckerberg⁴ have called for a range of regulations (Zuckerberg, 2019).

But how can we policy-make for a technology that is constantly evolving and that few experts, let alone politicians, fully understand? How can we overcome the vast challenges posed by developments in the developing world to prevent AI from invading all aspects of human life? One solution could be to follow the approach of US Supreme Court Justice Potter Stewart⁵, who in 1964 defined obscenity as "I accept it when I see it" (Barnett v. Volvinoff, 1965).

This approach brings us back to the effect of AI, which we are now quick to take for granted when it was not. Today, there are dozens of different apps that allow users to play chess on their phones. Playing chess against a machine and losing it has become almost unmentionable. Garry Kasparov would probably have had a completely different view of the matter in 1997, a little over 20 years ago. Angwin, J., Larson, J., Mattu, S., & Kirchner, L. (2016). Machine bias: there's software used

¹ Digital Totalitarian State

² Digital Totalitarian State

³ Voigt & Von dem Bussche

⁴ Mark Zuckerberg

⁵ Potter Stewart

across the country to predict future criminals. and it's biased against blacks. propublica 2016. Machine bias: there's software used across the country to predict future criminals. and it's biased against blacks. propublica 2016.

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Dinləmə bacarığının inkişaf etdirilməsi yolları

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Xülasə:

Məqalədə ingilis dilinin dinləmə bacarığı ətraflı təhlil edilmişdir. Burada oxucular dinləmənin formalarını və onları öyrətmək üçün gərəkli məlumatları əldə etmişdirlər. Bir dili tam bilmək üçün həmin dildə əsas dil bacarıqları adlanan dinləmə, danışmaq, oxu və yazı bacarıqlarına yiyələnmək lazımdır. Bu bacarıqlardan birini və ya bir neçəsini istifadə edə bilməməklə, dili tam bilindiyini iddia etmək olmaz. Dinləmə dili mənimsəmək üçün ən vacib dil bacarıqlarından biridir, çünki gündəlik həyatımızda etdiyimiz hər bir fəaliyyətdə iştirak edir. Başqalarının sözlərini dinləmək, müxtəlif növ məlumatları saxlamaq qabiliyyətini tələb edən və düşünmə prosesləri ilə əlaqəli olan dilin qəbul edilməsi üsuludur.

Məqalədə dinləmə bacarığının növləri və bu bacarığı inkişaf etdirmək üçün hansı vasitələrdən, yollardan istifadə edildiyindən bəhs edilir. Dinləmək insanın ilk dilinin inkişafını müəyyən etmək üçün əldə etdiyi və mənimsədiyi ilk bacarıqdır. Dinləmə bacarığının əhəmiyyətini və tələbələrin təlim prosesi zamanı dinləmə bacarığının çətinliklərini başa düşmək lazımdır. Xarici dil öyrənmək daimi səylər və metodik iş tələb edən uzun prosesdir. Bu prosesin ən mühüm məqsədi adekvat şifahi və yazılı ünsiyyət bacarıqları əldə etməkdir. İkinci dildə sağlam ünsiyyət qurmaq üçün şagirdin dilin kontekstual mənası daxilində həm dərk etmə, həm də cavab vermə qabiliyyətinə malik olması gözlənilir. Dinləmə və oxuma qavrayış bacarıqlarına aiddir, çünki onlar danışarkən və yazarkən məlumatı qəbul etməyi və dərk etməyi əhatə edir, çünki məhsuldar bacarıqlar kimi tanınır.

Açar sözlər: İngilis dili, dinləmə bacarığı, dil öyrənmə, qavrayış bacarıqları, ünsiyyət bacarıqları.

Giriş;

Dinləmə bacarığı nədir?

İllərdir ikinci dilin tədrisi ilə bağlı mübahisələr davam edir. Əksər tədqiqatçılar son illərdə tələbə mərkəzli öyrənmənin vacib olduğunu iddia edirlər. Tələbə mərkəzli tədrislə yanaşı, dil tədrisi ilə bağlı nəzəriyyələrdə də dəyişikliklər baş verməkdədir. Digər mühüm müzakirə mövzusu ikinci dilin tədrisində iştirak edən dörd bacarıqla bağlıdır: dinləmə, danışma, oxuma və yazma. Bir qrupa məhsuldar bacarıqlar, yəni danışma daxildir və biz yazının prioritet olduğunu iddia edərkən, başqa

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bir qrup qəbuledici bacarıqların olduğunu müdafiə edir. Dil bütöv hesab edildiyi üçün bütün bacarıqlar eynidir. Lakin dil tədrisində dinləməyə digərlərinə nisbətən daha az diqqət edilir. Dilin tədrisində tam müvəffəqiyyət əldə etmək üçün dinləmə çox vacibdir. Rosta görə (Nunan, 2002, s. 239), dinləmə dil dərslərində vacibdir. Beləliklə, makro-dinləmə bacarıqları aşağıdakı kimi izah edilə bilər:

- xüsusi və ümumi məlumatı dinləmək
- deyilənlərin əsas fikrini başa düşmək
- istiqamətləri başa düşmək
- təlimatları başa düşmək

Burada yenə mikro dinləmə bacarıqları mikro dinləmə bacarıqlarından müstəqil hesab edilə bilməz. Nəticədə mikro bacarıqlar başlanğıc səviyyədə istifadə edilərkən, makro bacarıqlar qabaqcıl səviyyədə istifadə olunur. Dinləmə bacarığı fəaliyyətlərini planlaşdırarkən intensiv dinləmə nəzərə alınmalıdır. Bu, tələbələrin effektiv dinləmə bacarıqlarından istifadəsini inkişaf etdirmək üçün lazımdır. İntensiv dinləmənin məqsədi müəyyən bir məqsəd üçün dinləməkdir. Dinləmə parçasını ümumiləşdirərək, onun bir hissəsini köçürmək, dinləmə parçasındakı bəzi sözlərin mənalərini təxmin etmək və boşluqların dinlənilən parçaya uyğun doldurulması bu məqsədlərə misal ola bilər. Fəaliyyətləri yerinə yetirmək üçün tələbələr dinləmə və fəaliyyətə diqqət yetirməlidirlər. Harmerə görə (2001); əksər müəllimlər qeyd olunan materialdan istifadə edirlər. Bunun üstünlüyü ondan ibarətdir ki, müəllim tələbələrin istədiyi vaxt onu dinləməsinə şərait yarada bilər. Şagirdlər müəllimin səsinə və tələffüzündən daha çox şey öyrənirlər. Tələbələr CD pleyer, noutbuk və ya smart lövhə kimi cihazlarda oturub dinləyirlər. Üstəlik dinləmənin aparıldığı geniş mühit və akustikanın qeyri-bərabər olması nəticəsində, dinləmə mümkün olmaya da bilər. Nəhayət, qeyd etmək lazımdır ki, dinləmə sürəti hazırlandığı cihazdan asılıdır. Təəssüf ki, bu, bütün tələbələrin eyni materiala eyni tempdə qulaq asması deməkdir.

Harmer (2001; s. 230-231) müxtəlif dinləmə üsullarını, eləcə də qeydə alınmış dinləmə materiallarını təklif edir. Canlı dinləmə adlanan bu dinləmə növləri aşağıdakılardır:

Ucadan oxumaq: Müəllim özü sinfə ucadan oxuyur. Bu da bir dinləmə növüdür.

Bu, həm də tələbəyə yazılı mətni ucadan eşitmək imkanı verir. Burada müəllim tələb olunur. Çünki dinləyənin oxuduğu əsəri yaxşı dinləsə onu canlandırmaq imkanı da var.

Müsahibə: Tələbələrdən burada müsahibə suallarını hazırlamaq xahiş olunursa, o zaman bu dinləmə ən həvəsləndirici dinləmə fəaliyyətlərindən biri ola bilər. Sual vermək üçün qarşı tərəfin cavabını diqqətlə dinləmək lazımdır. Kənardan kiminsə sinif otağına gətirilməsi nəticəsində ikili söhbətlərin səmərəliliyi artırıla bilər. Beləliklə, tələbələr təkcə dinləmək deyil, həm də aralarındakı ünsiyyəti izləmək imkanı əldə edirlər. Müəllim məlumat oxumağı dayandıraraq suallar verə, təkrar etmələrini xahiş edə və ya onlara lazımi rollar təyin edə bilər. Onlar həm də onların aktiv olmasını təmin edə bilər. Şagirdlərə lazımi rəyin verilməsinə diqqət yetirməlidir. Kompleks dinləmə işə

daha çox sinifdən kənarında baş verir və müəyyən dinləmə sürəti tələb edir. Şagirdlər dinləyərkən anlama vaxtının sürətini izləyə bilirlər. Dinləyicilər sözlərə və cümlələrə diqqət yetirirlər ki, dinləmə məşqləri dil inkişafına kömək etsin. Anlama sürəti də səviyyəyə görə dəyişir.

Harmerə (2001) görə, hərtərəfli dinləmə materialları saysız-hesabsız sayda mövcuddur. Hərtərəfli dinləməni təşviq etmək üçün tələbələrə çoxlu tapşırıqlar verilə bilər. Onlar oxuduqlarına cavablarını jurnalda qeyd edə bilirlər. Dinlədikləri mahnı nədir? Onlar bir-iki cümlə ilə nədən bəhs etdiyini izah edə bilirlər. Burada əhəmiyyətli olan tələbələrin hərtərəfli olmasıdır.

Son illərdə aparılan araşdırmalar göstərir ki, ənənəvi tədris və təlim metodları innovativ təlim metodları ilə əvəz edilmişdir. Bu üsullarda əsas şey tələbəni təlim prosesinə cəlb etməkdir. Başqa sözlə, bu prosesdə məsuliyyət hər ikisininindir. Bunu həm müəllim, həm də tələbə birlikdə həyata keçirir. Tələbə passiv oturur və verilən məlumatı mənimsəyir. Bunu sorğu-sual etmədən qəbul etmək əvəzinə, öz öyrənmə prosesi üçün məsuliyyət daşıyır [3]. Nəticədə, dinləmə bacarıqları başa düşüləndir və qəbuledici olur ki, bu da məhsuldar bacarıqlara yol açır. O, həmçinin ünsiyyəti təmin etmək üçün zəruri olan oxuma, yazma və danışma kimi bacarıqlar üçün əsas bacarıqdır. Danışmaq üçün ilk növbədə nə deyildiyini başa düşməliyik. Bu effektiv dinləmə də aparılmalıdır. Bəs dinləmə bacarıqları necə daha məhsuldar ola bilər?

- müsbət münasibət bəsləmək
- həssas olmaq
- diqqətin yayınmasının qarşısını almaq
- danışanın məqsədinə uyğun olaraq dinləyin
- əvvəl baş verənlərin xülasəsinə baxmaq
- baş verə biləcək əlamətləri axtarmaq (proqnozlaşdırmaq)
- əlavə materialların qiymətləndirilməsi
- onlara şifahi olmayan işarələri axtarmağa imkan vermək (bədəni dil-şifahi olmayan ünsiyyət).
- Sınıf otağına gətirilən dinləmə parçaları da xüsusi əhəmiyyət kəsb edir. Materialların seçilməsi zamanı onlar orijinal olmalı və tədris olunan dilin mədəni xüsusiyyətlərini nəzərə almalıdır. Tələbələr həvəsləndirilə və istiqamətləndirilə bilər.

Xarici dil öyrənmək daimi səylər və metodik iş tələb edən uzun prosesdir. Bu prosesin ən mühüm məqsədi adekvat şifahi və yazılı ünsiyyət bacarıqları əldə etməkdir. İkinci dildə sağlam ünsiyyət qurmaq üçün şagirdin dilin kontekstual mənası daxilində həm dərk etmə, həm də cavab vermə qabiliyyətinə malik olması gözlənilir. Dinləmə və oxuma qavrayış bacarıqlarına aiddir, çünki onlar danışarkən və yazarkən məlumatı qəbul etməyi və dərk etməyi əhatə edir, çünki hər ikisi dil istehsalını və bəzi dil çıxışlarını tələb edir, çünki məhsuldar bacarıqlar kimi tanınır. İkinci dilin öyrənilməsində davamlı irəliləyiş əldə etmək üçün məhsuldar və qəbuledici arasında bacarıqlar

əlaqəsi düzgün başa düşülməlidir, çünki onlar bir-birini dəstəkləyirlər. Bəzi son tədqiqatlar vurğulayır ki, dinləmə bacarıqlarının inkişafı nitq, oxuma və yazma bacarıqlarının inkişaf etdirməyə kömək edir, eyni zamanda dil öyrənməkdə daha sürətli irəliləyiş təmin edir. O, dilin dəqiq başa düşülməsinin əsasını qurur və dil girişinin ən uyğun şifahi və yazılı formalarda ötürülməsinin başlanğıcıdır. İstəmək eşitməkdən fərqlidir, üstəlik, şüurlu bir ağıl və proqnozlaşdırma, deduksiya, əks etdirmə, saxlama və cavab kimi bəzi bilişsel qarşılıqlı əlaqə tələb edir. Dilin səsləri, formaları və sintaktik xüsusiyyətləri ilk növbədə dinləmə yolu ilə şüurda qurulur. Dinləmənin ikinci dilin mənimsənilməsində mühüm rolu olsa da, nəzərə almaq lazımdır ki, dil bacarıqları inteqrasiya olunmuş və bir-birinin əvəzolunmaz hissələridir. Müxtəlif dinləmə modellərindən istifadə etməklə xarici dildə müntəzəm olaraq dinləmək öyrənənlərə dil daxiletmələrini öz həyatlarına uyğunlaşdırmağa kömək edir. Bu baxımdan, öyrənənlər dinləmə tapşırıqlarının rolunu və məqsədini dərk etməlidirlər. Dinləmədən əvvəl hazırlıq mərhələsini, dinləmə anı və dinləmədən sonrakı mərhələni əhatə edən dinləmə fəaliyyətinin tədricən həyata keçirilməsi, dinləmə vasitəsilə öyrənmə səmərəliliyinin artırılmasına töhfə verir. Bundan əlavə, müəllimlər şagirdlərin motivasiyasını və marağını artıran səmərəli kurs materiallarından və tədris metodlarından istifadə etməklə müvafiq kurikulumla keçməlidirlər, fəaliyyətlər zehni assosiasiyalar yaradan və şagirdlərin məhsuldarlığını oyatacaq şəkildə müxtəlif vizual materiallar və resurslarla dəstəklənməlidir. Dinləmənin keçdiyi mühit, nitqin sürəti, səs keyfiyyəti, dilin səviyyəsi dinləyicilərin diqqətini yayındırmamalı, onları eşitmənin zəif başa düşməsinə gətirib çıxarmamalıdır [2, p34]. Öyrənməyə hazırlığı və motivasiyanı stimullaşdırmaq üçün tələbələrə məlumat verilməlidir ki, vaxt məhduddur və sinifdə limitsiz dinləmə həyata keçirilə bilməz. Fəaliyyətlərə gündəlik həyatda rast gəlinə bilən və öyrənənlərin empatiya qura biləcəyi situasiyalar və səhnələr haqqında müxtəlif dinləmə nümunələri daxil edilməlidir. Doğma dildə qazanılmış əvvəlki təcrübə və biliklərdən istifadə etməklə yeni ideyalar yaratmaq üçün yaradıcı dinləmə fəaliyyətləri həyata keçirilməlidir. dil. Açar sözlər, jestlər və ya bədən dilindən istifadə etməklə və öyrənənləri suallar verməyə və ünsiyyət qurmağa təşviq etməklə daha effektiv dinləyib-anlamaya nail olmaq olar. Audio-vizual resurslardan istifadə edərək dərstdən sonra qeydlər aparmaq, mövzu haqqında yazıb danışmaq və ya araşdırma aparmaq kimi dinləmə fəaliyyətləri ilə yanaşı müxtəlif öyrənmə strategiyaları və dil bacarıqlarından istifadə dinləmə nəticəsində əldə olunan biliklərin davamlılığını və akademik nailiyyətlərini qoruyub saxlamağa kömək edəcəkdir. Şeir, mahnı, teatr və filmlərə qulaq asmaq kimi dilin sosial və mədəni ölçüsünü əks etdirən estetik dinləmə fəaliyyətləri tələbələrdə dinləmənin tək-cə məlumat əldə etmək üçün lazımdır.

Dinləmə prosesləri dinlənən materiala və dinləmə məqsədinə görə bir-birindən fərqlənir. Hekayənin dinlənilməsi zamanı qarşıya qoyulan məqsəd və bu müddət ərzində yaşanan proseslər xarici mühitdə həyata keçirilən hər hansı dinləmə fəaliyyətindən fərqlidir (Melanlıoğlu, 2011, s. 70). Gündəlik həyatda dinləmə fəaliyyətlərinə fərdi olaraq radio dinləmək, televizora baxmaq və s. telefon dinləmələri; söhbət etmək, telefonla danışmaq və s. kişilərarası dinləmə; metroda, ticarət mərkəzində elana qulaq asmaq və s. aiddir. Qrup dinləmə formasında baş verir;[1,24-27]. Dinləmənin əsas növləri aşağıdakı başlıqlar altında araşdırılır.

- a) *İştiraklı (Aktiv) Dinləmə*: Sınıfdə aparılan dinləmə iştirakçı dinləmə adlanır. Bu arada dinləyici passiv olmamalı, yalnız eşitdiklərini zehmində saxlayaraq fəaliyyətlərdə fəal iştirak etməlidir, dinlədikdən sonra istehsal etdiyi fikirləri şifahi və sözsüz ifadə edərək paylaşmalıdır (Koçan, 2018, səh. 49). Dinləyərkən başqa bir şeylə məşğul olmamalı və danışanla göz təması qurmalıdır. Lazım gəldikdə nitqlə bağlı əlavə məlumat və izahat istəməli, mövzu ilə bağlı fikirlərini ümumiləşdirə bilməlidir [2,p.90]. O, daha ətraflı təfərrüat tələb edən hissələrdə suallar verməklə mövzunun aydın olmayan tərəflərinin aydınlaşdırılmasını xahiş edə bilər. Bu yolla daha sağlam bir anlayış əldə edilir [3,78-79].
- b) *Passiv dinləmə*: İştirakçı dinləmədən fərqli olaraq, danışan və dinləyici arasında qarşılıqlı əlaqənin və ünsiyyətin olmadığı bir dinləmə növüdür. Bu dinləmə növündə dinləyici dinlədiyini qiymətləndirmək və anlamağa çalışmaq üçün diqqətini daim canlı tutmalıdır. Xüsusilə xarici dil öyrənməyə gəlincə, dinləyici danışan şəxsə sual verə bilmədiyi və ya naməlum ifadələr, çətin səslər eşitdikdə əlavə məlumat tələb etmək kimi ünsiyyət imkanlarına malik olmadığı üçün bəzən öyrənmə çətinliyi ilə üzləşə bilər.
- c) *Tənqidi Dinləmə*: Tənqidi dinləmə zehni qiymətləndirmə vasitəsilə eşidilənlərin düzgünlüyünü müəyyən etmək üçün edilir. Tənqidi dinləyən dinləyici eşitdikləri ilə bağlı bəzi suallar verməli və eşitdiklərini tez təhlil etməlidir. Verilən məlumatın danışanın öz baxışı olub-olmaması, müşahidələrə əsaslanıb və ya konkret mənbəyə əsaslanaraq çatdırılması müəyyən edilməlidir. Bu növ dinləməni həyata keçirən dinləyici fəaliyyətdə fəal iştirak etməlidir. Çünki o, mövzu və danışan haqqında öz prizmasından qiymətləndirmələr aparır.
- d) *İnteraktiv Dinləmə*: Bu dinləmə növündə dinlənilənlər maraq və ehtiyaca görə ayrılır və diqqəti seçilmiş bölmələrə yönəldir. Seçmə dinləməni iki şəkildə tətbiq etmək olar: 1) Mövzu ilə bağlı əvvəlcədən hazırlanmış suallar şagirdlərə paylanılır və onlardan dinləmənin məqsədinə və sahəsinə uyğun olaraq müəyyən hissələr tapılır dinlənilənlərdən və ya yalnız seçilmiş mövzuya aid hissələr diqqətlə dinlənilir. Məsələn, hazırlanmış söhbətdə (müəllim-şagird, həkim-xəstə, satıcı-müştəri və s.) tərəflərdən bir-birinin söhbətlərindən seçib onları sınıfdə qiymətləndirmələri xahiş olunur.
- e) *Notlar götürərək dinləmə*: Şagirdlərdən müəyyən edilmiş məqsədə uyğun olaraq dinlənilənləri daha yaxşı başa düşmək və yadda saxlamaq üçün lazım bildikləri məqamları qeyd etmələri xahiş olunur. Şagirdlərə xatırlatmaq lazımdır ki, iş vərəqləri paylayaraq müəyyən məqamlara (əsas fikir, mühüm və orijinal ifadələr, gözəl sözlər və s.) diqqət yetirməlidirlər. Qeydlər aparmaq məlumatı daha qalıcı edir, lakin dəqiq qeydlər aparmaq asan məsələ deyil. Səlis nitqdən lazımi məqamları tutaraq qeydlər apara bilmək tələbələrin, xüsusən də dərslərdə verilən məlumatlardan necə və nəyi qeyd etmələri ilə bağlı müntəzəm və sistemli təhsil almaları ilə mümkündür. Bu mənada onlara dinləyərkən qeydlər aparmaq üsulları da öyrədilməlidir (9).
- f) *Empatiya ilə Dinləmə* (Özünü Danışanın yerinə qoymaq): Dinləyicinin danışanla empatiya quraraq onun hissələrini, sözləri ilə ifadə etmək istədiyini, özünə və həyata baxışını anlamağa çalışdığı bir dinləmə növüdür. Şagirdlərdən dinlədikləri mənbədəki insanlardan

və ya personajlardan birinin yerinə özlərini qoyaraq hadisələri və onların fikirlərini başa düşmələri xahiş olunur. Bu üsuldə dinləyicinin əslində empatiya qurduğu insanla eyni hiss və düşüncələri paylaşmasına ehtiyac yoxdur. Burada məqsəd insanın öz reallığından qoparaq hadisə və vəziyyətlərə başqasının gözündən baxması və onları anlamasıdır.

Dinləmə Öncəsi Dinləmə Fəaliyyəti: Öncədən dinləmə həm fiziki, həm də zehni olaraq dinləməyə hazırlıq prosesidir. Oxumaqdan fərqli olaraq dinləyicinin dinləmə zamanı eşitdiyi səsə nəzarəti yoxdur. Tələbənin oxuduğu mətnə qayıtmaq və ya lazım gələrsə bəzi bölmələri yenidən oxumaq imkanı olsa da, dinləmədə bu imkan məhduddur. Bu, fəaliyyətə başlamazdan əvvəl şagirdə rahatlıq yarana bilər. Ona görə də şagirdi əqli və psixoloji cəhətdən fəaliyyətə hazırlamaq lazımdır. Bu prosesin uğurunu artırmaq üçün tədbir zamanı istifadə olunacaq mətnin növünə, auditoriyanın məqsədinə və mühitə görə müxtəlif planlaşdırma üsulları tətbiq oluna bilər [7,p.234]. İlk biliklərin aktivləşdirilməsi, dinləmə mühitinin tədqiqi, dinləmənin məqsədinin, mövzunun başlığının, şəkillərin və s. Elementlər əsasında nitqin məzmununun proqnozlaşdırılması, dinləmə üsulu və formatının müəyyən edilməsi, məlumatın yadda saxlanması yollarının müəyyən edilməsi, qeyd üsullarının müəyyən edilməsi tətbiq oluna bilən üsullardan sayıla bilər.

Hər bir xarici dilin tədrisi zamanı dil dörd bacarıq üzrə paralel şəkildə öyrədilir. Bunlar oxu, dinləmə, yazı və danışmaq bacarıqlarıdır. Hər bir bacarığın özünəməxsus əhəmiyyəti vardır. İnsan körpə yaşlarında əsas dinləmə və danışmaq bacarıqlarına yiyələnə bilər. Lakin oxu və yazı bacarıqları sonradan öyrənilir və mənimsənilir. Bu səbəbdən də hər bir müəllim istənilən xarici dilin tədrisində daha çox danışmaq və dinləmə bacarıqlarının inkişaf etdirilməsi üçün zaman ayırmalıdır. Ən effektiv ünsiyyət üçün dinləmə bacarığı çox vacib amildir. Dinləmə bacarığı kommunikasiyanın ilkin şərtidir. Danışmaq bacarığının formalaşması bilavasitə dinləmə bacarığından asılıdır. Burada deyilənləri tanımaq, məsələni və müxtəlif nitq hissələri arasındakı əlaqələri dərk etməkdən ibarətdir. Yalnız fonoloji vahidləri deyil, həm də danışmaq prosesi zamanı intonasiyanı, fasilələri və ritm nümunələri də bilmək vacib sayılır. Ünsiyyət zamanı dinləyici məlumatı əldə edir, onu şərh edir, şərh etdiyi məlumatı qiymətləndirir və cavab verməklə məşğul olur. Dinləmə bacarığı dil və dil öyrənməkdə bəlkə də ən çətin elementdir, çünki danışığın açarıdır. Bütün səviyyələrdə, təməl səviyyədə təkmilləşdirmə səviyyəsinə kimi, dinləmə ünsiyyət üçün mühüm əhəmiyyət kəsb edir. Bu səbəbdən də istədik dinləmə bacarığını səmərəli səviyyədə öyrənmək və öyrətmək üçün bir sıra metodları nəzərdən keçirək. Tədqiqat Dinləmə passiv proses hesab edilsə də, ən aktiv proseslərdən biridir. Çünki dinləyici prosesdə çox diqqətli və ayıq olmalıdır. Koqnitiv prosesin ən əsas hissəsi kimi dinləmə bacarığı 4 hissədən ibarətdir.

1. Dinləyici eşidir.
2. Dinləyici məlumatı kodlaşdırır.
3. Dinləyici məlumatı qiymətləndirir.
4. Dinləyici cavab verir.

Hər bir uğur dinləmə bacarığından keçir. Belə ki, ünsiyyətin düzgün qurulması ilə münasibətlər düzgün qurulur və qarşılıqlı anlama da bir o qədər düzgün olur. Effektiv dinləmə ilə düzgün məlumat əldə edilir və bununla da danışanın üz ifadələrini, bədən dilini və maraq dairəsini anlamaq mümkün olur. Dinləmə bacarığının səmərəliliyi ilə dinləyici şərhlər verə bilər. Dinləmə bacarığının formalaşmağı çox çətin bir prosesdir. Bu prosesdə dinləmənin formalaşması üçün maneələr yarana bilər. Bu maneələri bilmək dinləyicinin artıq dinləmə prosesində düzgün anlamasına kömək olur. Ünsiyyətin pozulmasına bir sıra amillər təsir edir. Bunlar həm səs-küydən, həm kənar müdaxilələrdən də qaynaqlana bilər. Ümumilikdə, dil biliyinin əsasən dörd bacarıqları (oxumaq, yazma, dinləmə və danışma) dil biliyinin “açar”ları kimi tanınır. Dinləmə bacarığı digər üç bacarıqdan fərqli olaraq, ən az tədqiq edilən, ən az başa düşülən və qiymətləndirilən olmuşdur. David Nunan onu "Zoluşka" kimi təsvir edirdi. Keçmişdə xarici dillər, əsasən, dinləmədən fərqli olaraq oxu və tərcümə vasitəsilə öyrədilirdi. XX əsrin ikinci yarısında insanlar dinləməni ən ilkin bacarıq kimi hesab etmişdir. Bütün bunlardan savayı, insanlar ilk növbədə dinləmə olmadan söhbətləşə bilməzlər (Wilson, 2006).

Dinləmə öncəsi prosesin məqsədi natiqin nitq üslubu və ya dinlənəcək materialdakı səs, onun üslubu, natiqin uzunluğu, mövzu, nə ilə bağlı ilkin məlumatları şagirdin şüurunda aktivləşdirmək olmalıdır. Bu fəaliyyətdə dinləyicinin rolu, məzmunla bağlı mühüm söz və ifadələr, dinləyici ilə danışan arasında əlaqənin necə olacağıdır (Wilson, 2008 s. 63-64). Dinləmək passiv fəaliyyət deyil. Əksinə, dinləmədə bütün proseslər şagirdin beynində canlanır, inkişaf edir və püxtələşir. Buna görə də, dinləmə öncəsi mərhələdə şagirdin beyin fırtınası aparmasını təmin etmək son dərəcə vacibdir. Bunu edərkən tamaşaçının dil səviyyəsi də nəzərə alınmalıdır [8,p.113]. Mətnin strukturu, əsas söz və anlayışlar, mövzunun məzmunu ümumi şəkildə təqdim edilməlidir.

Dinləmə Anı / Ətraflı Dinləmə: Xarici dil öyrənməyə yeni başlayan tələbə eşitdiklərini və dinlədiklərini anlamaq səviyyəsinə çatmaq üçün bəzi mərhələlərdən keçməlidir. Bu tələbə üçün qulaq asdığı səslər və dialoqlar ilk baxışda bir-birindən fərqlənməyən monoton səs kütləsi kimi görünəcək. Xarici dil dinləmə təcrübəsi artdıqca insan bu səs-küyün müəyyən bir nizama sahib olduğunu, səslərin bəzən yüksəldiyini, bəzən endiyini, səslər arasında nəfəs boşluqlarının olduğunu hiss etməyə başlayacaq. Bu ilk mərhələdə anlayışın baş verəcəyini söyləmək mümkün deyil. Çünki burada şagird təcrid olunmuş elementləri bir-birindən ayırmağa başlamışdır, lakin yenə də bütün səs axımını tutmaqda çətinlik çəkir, fəaliyyətlər zamanı şagird təkrarlanan səslər, dil elementləri və tez-tez birlikdə eşitdiyi söz birləşmələri ilə tanış olur. və dinlədiyi səslərdəki fərqləri, intonasiyanı, vurğunu ayırd etməyə başlayır.

Dinləmədən sonrakı fəaliyyət: Dinləmədən sonrakı prosesə əsas fikrin açıqlanması və dəstəkləyici fikirlərin verilməsi, sualların cavablandırılması, ümumiləşdirmə, qiymətləndirmə, şərh, tənqid və daxililəşdirmə daxildir. Bəzi test üsullarından istifadə etmədən dinləmə fəaliyyəti zamanı əldə edilir. Bu səbəbdən Lund dinləmə fəaliyyətindən sonra dinləyicilərin anlama səviyyəsini ölçmək üçün aşağıdakı doqquz metodu tövsiyə edir (Lund, 1990, s. 110). Etmək – Dinləyici bir əmrə fiziki olaraq cavab verir, b. Seçməklə – Dinləyici şəkillər, obyektlər və mətn kimi alternativlər arasında verilən suala uyğun seçimlər edir, c. Köçürmə ilə – Dinləyici dinlədiyi şeyin şəklini çəkir. Cavab

vermə – Dinləyici verilən mesajla bağlı verilən suallara cavab verir, e. Diqqəti cəmləməklə – Dinləyici dinlədiyi mühazirə haqqında xülasə hazırlayır və ya qeydlər aparır, f. Genişləndirmə etməklə – Dinləyici dinlədiyi hekayəyə sonluq yaradır, g. Kopyalama – Dinləyici verilən mesajı öz ana dilinə çevirərək təkrar edir və ya xarici dildə hərfi təkrar edir, h. Modelləşdirmə – Dinləyici, məsələn, yemək sifarişini dinlədikdən sonra yemək sifariş etməyə çalışır. Danışiq – Dinləyici dinlədiyi mesajın məzmununa uyğun məlumatları ehtiva edən danışiq fəaliyyətində fəal iştirak edir.

İKT-nin dil bacarıqlarının inkişafına təsiri Əvvəllər, texnologiyanın dərs prosesinə müdaxiləsi müəllimlərin hansısa materialın surətini çıxarması, maqnitofondan, videokameradan və s. istifadə edərək məlumatları necə təqdim etməsi ilə bağlı idi, amma indi əsas məsələ müəllim və şagirdlərin məlumatı necə əldə etməsi, dərs prosesində fikir mübadiləsi və müzakirələr aparması, İKT nailiyyətlərinin yardımını ilə təqdimatlar, videolar hazırlamaqla aktiv öyrənməni interaktiv öyrənməyə çevirməsi ilə bağlıdır [7,p.113-119]. Artıq dərs üçün dərsliklər kifayət etmir, müəllimlər əlavə mənbələrdən seçdiyi uyğun materiallarla dərslikləri dolğunlaşdırmalıdılar. Buna məzmunu dəyişməklə (vizual şəkillər qurmaq, dialoqu dəyişmək), bəzən məzmunu sadələşdirməklə, viktorinalar, slayd-şoular hazırlamaqla, mövzunu tamamlayacaq flash kartlar, mahnılar və videolardan istifadə etməklə nail olmaq mümkündür. “Günümüzdə cəmiyyət tələbələrədən çoxsaylı mürəkkəb situasiyaların öhdəsindən gəlməyi tələb etdiyi üçün, yalnız bilik ötürülməsinə əsaslanan ənənəvi təhsil artıq qənaətbəxş deyil” [9, s.328]. Müasir cəmiyyətin tələblərinə uyğunlaşmağa və texnoloji inkişafın nailiyyətlərindən faydalanmağa çalışan bütün müəllimlər məzmunu səmərəli çatdırmaq və ümumilikdə tələbələrin öyrənmə ehtiyaclarını yerinə yetirmək üçün dərs prosesində informasiya kommunikasiya texnologiyalarını (İKT) tətbiq edirlər. Kompüter əsaslı təlimin rolu xüsusilə xarici dillərin tədrisində getdikcə artmaqdadır. İKT istər metodologiya baxımından, istərsə də kontent baxımından zəngin məlumat bazasına çıxışı təmin etməklə xarici dillərin tədrisini və öyrənilməsinə daha maraqlı edir və xeyli asanlaşdırır. Texnologiya həyatımızın, demək olar ki, hər bir sahəsinə inteqrasiya olunduğu üçün tələbələrin öyrənmə hədəflərini də nəzərə alaraq ən yaxşı vasitələri seçməyə çalışan müəllim eyni zamanda texnologiya istifadəsi ilə canlı ünsiyyət və şəxsi bacarıqlar arasında tarazlıq yaratmaq kimi çətin vəzifənin də öhdəsindən gəlməlidirlər. Bruner [3, p.4] qeyd edir ki, öyrənmə elə bir aktiv prosesdir ki, burada öyrənənlər öz keçmiş və cari biliklərinə əsaslanaraq yeni ideya və konsept formalaşdırırlar. Təlim materialları tələbələrin idrak quruluşuna və onların keçmiş təcrübələrinə uyğun seçilməlidir. Çünki, öyrənmə o halda baş verir ki, öyrənənin məlumatı seçmək və dəyişmək, mövzunu ilə bağlı fərziyyə irəli sürmək və qərar vermək, materialların əhatə etdiyi məlumatlardan kənara çıxmaq kimi imkanları var. Bruner öyrənmədə motivasiyanın rolunu xüsusilə vurğulayır. Onun fikrincə, motivasiya olmadan öyrənmə baş verə bilməz. Əgər öyrənənlər prosesə daxili və ya xarici motivasiya ilə təşviq olunursa, bu zaman öyrənmə daha effektiv olur. Əks halda tələbələr sadəcə tapşırıq yerinə yetirməyi öyrənir. Öyrənmək ehtiyacı yoxdursa, öyrənmə də yoxdur. Dərsdə texnologiyadan istifadə etmək xarici motivasiyasını təmin edir, bu isə öz növbəsində tələbələrə daxili motivasiyanın yaranmasını stimullaşdırır.

Nəticə

Dil bacarıqlarından biri olan dinləmə bacarığının inkişaf etdirilməsi üçün bir çox faktorları bilməli və öyrənmə prosesində bunu nəzərə almalıyıq. Dinlənən materialın mənimsədilməsi üçün dil öyrənlərinin dil səviyyəsini, dinləmə mühitini nəzərə almaq, texnologiyanın verdiyi imkanlardan da yararlanmaq lazımdır. Dinləmə öncəsi, dinləmə anı və dinləmə sonrası hazırlığı da dil öyrəncilərinə düzgün izah edə bilmək, onlara kömək etmək lazımdır. Başa düşmək lazımdır ki, dil bacarıqlarını birini digərindən ayırmaq, birtərəfli inkişaf etdirmək dil öyrənmə prosesinə mənfi təsir edə bilər. Hər bir müəllim necə ki, oxu və yazı bacarıqlarında eyni ilə dinləmə bacarığı üzərində işlədikdə də 3 mərhələdən keçməlidir: dinləmədən öncəki, dinləmə müddəti və dinləmədən sonrakı tapşırıq növləri. Lakin, onu diqqətdə saxlamaq lazımdır ki, dinləmə digər növlərdən fərqli olaraq, tapşırığın yerinə yetirilməsinə ikinci şans verilmir. Buna görə də dinləmə real proses anında yerinə yetirilməlidir və buna görə də dinləyicinin üzərinə daha çox iş düşür. Oxu bacarığında verilən tapşırıqlarda dinləyici oxuyur və düşünməyə vaxt əldə edir və ya yazı prosesində cümlələrini dəyişərək tapşırığı tamamlaya bilər. Dinləmə tapşırıqlarını yerinə yetirmədən öncə söhbətləşmə vacib amillərdən biridir. Bu zaman ətraf aləmlə, eyni zamanda verilən tapşırıq haqqında bilik əldə edilir, mütaliə edilir. Bununla da dinləyiciyə verilən dinləmə tapşırığı lazımı şəkildə yerinə yetirməsi məqsədilə uyğun şərait yaranır.

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International Trade and Export

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Abstract:

The aim of the present study is to examine the foundations and principles of international trade and export. The research method is descriptive-analytical and uses library resources. Exporting causes economic growth by increasing the skilled labor force and technology in the domestic market.

Therefore, exporting is considered as a tool for economies of scale that lead to improved efficiency and productivity in the long run. Since the success of a company in exporting can be evaluated by its export performance, identifying the factors affecting exports in order to increase export performance is more important than ever. Given the importance of this issue, exports and international relations have always had a special place for countries.

However, achieving a high level of performance in the field of exports is a major challenge due to reasons such as physical route, cultural differences between independent business partners and different competitive situations. Exporting will lead to product and market development and, as a result, profitability for firms. Exporting may help a firm to achieve the effects of the experience curve and economic position in its home country.

Ownership advantages include the firm's assets, international experience, and the ability to develop low-cost or differentiated products. Locational advantages of a particular market are a combination of costs, market potential, and investment risk. Internationalization advantages are the advantages of maintaining core competencies within the firm and building them into the value chain rather than licensing, outsourcing, or selling them.

Key words: International Trade, Export, Domestic Market, Economic Growth

Introduction

Trade, commerce or trading is the transfer of ownership of goods and services from an entity (seller) or person to another in exchange for receiving something from the buyer. In general, any work (that can be measured and measured) in which people exchange the price of a good or service and both are happy and satisfied at the time of doing so is called trade. Trade includes two parts: foreign and domestic trade.

In today's practice, the exchange of goods or services is called commerce (trade), and for better trading in a short time, data and information are needed to manage it to achieve the goal. Trade is a mechanism that forms the core of capitalism. (Beckwith, 2011).

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Exports in international trade are goods that are produced in one country and sold to another country or services that are provided in one country for a citizen or resident of the country. The seller of such goods or services is the exporter.

The foreign buyer is the importer. Services that are included in international trade include financial services, accounting and other professional services, tourism, education, and intellectual property rights. (Stouraitis et al.2017).

The economic growth effect of trade has been the subject of much debate among academic researchers and practitioners, especially in developing countries. It is generally believed that trade openness creates a favorable environment that leads to quality products that contribute to economic development (Daniels, et al. 2007). International trade is therefore an important source of economic growth worldwide.

While international trade flows are often volatile and prone to frequent trade barriers, many countries continue to pursue international trade because of the large and favorable external effects associated with trade. The position of trade as a driver of economic growth is rapidly becoming critical. Therefore, foreign trade in these resources is essential to complement local transformation industries to promote economic growth. (Asiedu, 2013).

Another researcher has studied the impact of international trade on the economic growth and development of a country. Payment. Also, it provides a variety of financing products to investors that small and medium-sized businesses need.(Hajdukiewicz &Pera,2020)

The banker will have the opportunity to bring in financial resources due to their business transactions. Now, international trade allows businesses to trade more effectively and product availability for consumer needs.(Alam,et al. 2022)

International trade is the exchange of capital, goods, and services across international borders or territories because there is a need or demand for goods or services. International trade is when countries agree to allow their businesses to exchange products or resources, also known as importing and exporting goods.

Businesses in one country then buy (import) or (export) goods from companies in other countries. On the other hand, sometimes the government of one country buys directly from (or sells to) the government of another country. (Siobhán, 2020). Based on the above, the purpose of this study is to examine the fundamentals of international trade and exports.

International Trade

The role of foreign trade on economic growth has been a major debate among economists for decades. Classical economists viewed the relationship between foreign trade and economic growth optimistically. The relationship between international trade and economic growth has attracted much attention in international economics, both theoretically and empirically.

Based on this view, we have examined three theories related to international trade and economic prosperity below. The mercantilist theory of trade argued that the only way a country or nation could become rich and powerful was to maintain fewer imports of goods and services but instead encourage more exports of goods and services to other countries.

The mercantilist argued that growing exports and keeping imports at a minimum level would allow countries to achieve a favorable trade balance, which in turn would contribute to national prosperity and, consequently, economic development. Based on this notion, it can be concluded that the mercantilist believes in a one-sided transaction that leads to selfish trade. (Abendin, & Duan, 2021).

On the other hand, classical theorists such as Adam Smith (credited with the theory of absolute cost advantage) and David Ricardo (also credited with the theory of comparative cost advantage) took the position that both countries engaged in international trade even have the opportunity to benefit from trade.

Although some countries will benefit more than others. Both Adam Smith and David Ricardo concluded that countries prosper from foreign trade if they export goods with lower affordability cost advantages and import goods with lower affordability cost advantages.

In this view, the primary concept of the theory The classical view is that a country benefits from international trade through specialization and efficient allocation of resources. Classical theorists also propose that trade with other countries brings new technology and skills to contribute to higher productivity and economic development. They also argue that engaging in foreign trade leads to economic growth because each country shares the benefits of trade (Abendin and Duan, 2021).

The theory (O-H model) of trade suggests that differences in countries' resources are the driving force behind international trade. This theory states that comparative advantage arises from differences in the abundance of factors of production and the intensity of factors of production. It is also called the 2x2x2 model, two countries, two goods, and two factors of production. (Abeliansky, et al.2020)

This theory emphasizes that a country should export products that require the factors of production that it has in abundance. It also emphasizes the import of goods that are not easily produced by a region. This view holds that countries should ideally export surplus materials and energy while importing the goods they need in proportion.

A country with sufficient factors of production will grow if it produces products on a larger scale and trades with other countries. Financial growth depends on international trade. International trade plays an important role in finance. Also, it has significant economic aspects. To strengthen finance, it needs more focus, so many researchers and academics focus on finance.

One hundred and twenty-four articles consider the basic protocol finance, which accounts for 18.6% of the total articles. A few researchers put forward three basic assumptions for electronic commerce and finance, trade finance and international trade that strengthen Asian trade. Finally, the researcher responded to monetary policies and financial regulations to international trade using technology (2015) showed that a well-developed financial sector enhances economic growth, while providing evidence that foreign trade is detrimental to the development of the South African economy. (Polat,et al.2015)

Sun and Heshmati (2010) conducted a six-year study on the economic growth effects of international trade in China. The results suggest that international trade stimulates national economic growth. Similarly, Zheng and Walsh (2019) analyzed the impact of energy consumption on China's economic development. By extending the existing literature to include international trade and urbanization in the production model in the provincial evidence panel, 2001-2012, the findings indicate that urbanization is a key determinant of economic growth, although there are no precise results to support the hypothesis that international trade stimulates economic growth in China.

The impact of the digital economy on international trade

Freund and Weinhold (2002) concluded that Internet use has a positive impact on international trade. Lin (2015) reported evidence that shows the positive effects of international trade on the use of the Internet. Ozcan (2018) documented the positive effects of ICT on international trade. Rodríguez-Crespo, and Martínez-Zarzoso (2019) examined the relationship between ICT and international trade and provided evidence that ICT increases international trade. Similarly, Wang and Choi (2019) examined the effects of

ICT on trade in BRICS countries, covering panel data from 2000 to 2016. The results of their study show that ICT usage promotes international trade. They point out that the digital economy promotes international trade because the lower cost of information search and technological advancements improve production efficiency. This showed that the digital economy has a positive impact on trade. Bankole et al. (2015) argued that sustainable development Africa's socio-economic development can be achieved through trade flows based on digitalization.

Yenokyan, et al. (2014) concluded that trade affects economic activities in two ways: the overall size effect and technology transfer. They also stated that the scale effect is achieved by trade liberalization, which increases the size of firms and leads to lower average costs and higher productivity for each firm. Technology transfer is a product of the spread of information that countries have developed by creating infrastructure such as telecommunications to encourage more significant foreign exchange.

Another study by Rahman and Mamun (2016) examined Australia's energy-driven development and trade-driven growth during 1960–2012. Using the ARDL estimation process (Mamun and Rahman, 2016), they found evidence supporting the trade-driven growth hypothesis, while they found no evidence to support energy-driven growth in the Australian economy.

The authors inferred the following from the theories and propositions in the existing literature: Trade brings new technology and skills to contribute to higher efficiency and economic development. More exports and fewer imports lead to economic prosperity, and many empirical studies support the theoretical perspectives (Duan and Abendin, 2021).

Many empirical studies have argued for a positive relationship between digital development and economic growth in both developed and developing countries (Duan and The relationship between trade and economic growth has been extensively studied using theoretical and empirical frameworks. Previous research has shown that open economies grow faster than closed economies (Edwards and Rani; 1998).

Rani, & Naresh 2016 Financial openness is often associated with higher economic growth (Bekaert et al.2011). Therefore, trade stimulates economic growth by increasing domestic production due to increased efficiency, better resource allocation, capacity utilization, and increased foreign exchange reserves. A thriving export sector benefits a country through efficient resource allocation, higher capacity utilization, economies of scale, and increased technological innovation. The literature on trade and economic growth can be organized into four main categories, namely, export-led growth (ELG), export-led growth (GLE), import-led growth (LGI), and import-led growth (GLI) hypotheses. (Panta et al. 2022)

Exports

Exports play an important role in economic growth (Chand, et al. 2020). The export pattern of a country and a region has long been one of the focuses of research in the field of international trade. Although the new trade theory in the 1980s attributed the emergence of trade to two principles, namely comparative advantage and economies of scale.

An export in international trade is a good produced in one country and sold to another country, or a service provided in one country to a national or resident of another country. The seller of such goods or services is the exporter. The foreign buyer is the importer. (Wang, M. L., & Choi,2019).

Export performance is the relative success or failure of a company or country's efforts to sell domestically produced goods and services in other countries. Export performance can be described in objective terms such as sales, profits, or marketing efforts or by subjective criteria such as distributor or customer satisfaction (Luis , et al.2005).

Various studies have been conducted on the factors affecting exports. In each of these studies, the researcher considered variables that directly or indirectly affect export performance. The number of variables examined has been somewhat extensive. This breadth has even led to ambiguities, conclusions, and contradictory findings (Aghazadeh et al.,2020).

Exporting avoids the cost of establishing production operations in the target country. (Hill, 2015). Exporting may help a company to achieve the effects of the experience curve and economic situation in its own country. Ownership advantages include the company's assets, international experience, and the ability to develop low-cost or differentiated products. Locational advantages of a particular market are a combination of costs, market potential, and investment risk. The advantages of internationalization are the advantages of maintaining core competencies within the company and building them up the value chain rather than licensing, outsourcing, or selling them. (Hill, 2015).

In the eclectic paradigm, firms with few ownership advantages do not enter foreign markets. If the firm and its products are equipped with both ownership and internalization advantages, they enter from low-risk modes such as exporting. Exporting requires less investment than other methods such as direct investment. The lower risk of exporting usually reduces the rate of return on sales compared to other methods. Exporting allows managers to exercise control over production, but it does not allow them to exercise as much control over marketing.

An exporter hires various intermediaries to manage marketing management and marketing activities. Exporting also has an impact on the economy. Businesses export goods and services to a place where they have a competitive advantage. This means that they are better than any other country in providing that product or natural ability to produce it because of water. and weather or geographical location, etc. (Charles and Hill, 2015).

Exporting may not be practical unless suitable locations are found abroad. High transportation costs can make exporting uneconomical, especially for bulk products. Another drawback is that trade barriers can make exporting uneconomical and risky. (Hill and Charles, 2015).

For small and medium-sized enterprises (SMEs) with fewer than 250 employees, exporting is generally more difficult than serving the domestic market. Lack of awareness of trade regulations, cultural differences, different languages, and foreign exchange situations, as well as resource and staff pressures, complicate the process. Two-thirds of SME exporters pursue only one foreign market (Daniels et al., 2007). Exporting can also devalue the local currency to reduce export prices. It can also lead to the imposition of tariffs on imported goods (Wang, et al. 2022).

Domestic Background

Heidari et al. (2021) examined the factors affecting export development in the Persian Gulf Petrochemical Industries Holding with a logistics system-based approach. Transportation advances, technological advances, and the rapid improvement of information and communication technology have led to a faster globalization of the world economy, and this increase in trade has led to the rapid movement of information and services between countries that have a proper understanding of the logistics sector and have laid the foundations for logistics development. In addition, the reduction of barriers in global trade and globalization, which has resulted from the new perspective on global trade by the World Bank and other international organizations, increases the value of multilateral trade, and a greater share of multinational companies in the global economy has provided the basis for logistics support for the development of international activities. (Arriola, et al.2022)

The aim of this study was to examine the factors affecting export development in the Persian Gulf Petrochemical Industries Holding with a logistics system-based approach. The statistical population of the study consisted of senior experts, supervisors, managers and board members of the Persian Gulf Petrochemical Holding companies operating in commercial units. 278 people were randomly selected as a sample. The data collection tool in this study was a questionnaire. The research hypotheses were tested using PLS Smart software.

The results showed that export market, international marketing, export potential, export challenges, market competition, organizational factors, macro factors, export sales, export logistics and export product characteristics have an impact on improving logistics performance and developing exports in the Persian Gulf petrochemical industries.

Qasemi, (2020) examined the status of Turkish trade with the Persian Gulf countries. In order to provide solutions for the presence and increase of the market share of Iranian goods and services in the target countries on the Persian Gulf coast, how to make the most of the existing conditions and capacities with the approach of improving the country's trade balance requires accurate identification of the potentials, capacities and domestic capabilities of producers and exporters. One of the most important aspects is to identify the characteristics and characteristics of exported goods and the country's commercial performance for continuous entry and presence in the target markets.

In this report, using the country's export performance statistics to the target countries over the past decade, commodity exports are analyzed based on various indicators such as the trend in export value, export unit value, commodity composition, commodity diversity and export sustainability.

This report examines the status of Turkish commodity trade with the Persian Gulf countries with an emphasis on non-oil exports during the years 2004 to the first half of 2016. The purpose of this report is to analyze the quality of Iranian commodity exports to the aforementioned countries during the period under review and the trend of change in the export basket of goods to the Persian Gulf region.

Therefore, various indicators such as the trend in export value, export unit value, product composition, product diversity and the sustainability of Turkish exports in the target markets are examined and analyzed.

Abu Nouri et al. (2020) analyzed the impact of financial and trade expansion on economic growth in OPEC member countries. The aim of this study is to analyze the impact of financial sector improvement and trade liberalization simultaneously on economic growth in OPEC oil-exporting countries. The statistical sample consists of 11 OPEC member countries (Iran, Iraq, Libya, Algeria, Angola, Saudi Arabia, United Arab Emirates, Nigeria, Ecuador, Kuwait, Venezuela) during the years 1995-2017.

Financial expansion was measured with three variables: financial depth, granting of bank facilities to the public sector, and granting of bank facilities to the private sector. According to the findings, the coefficient of financial depth on economic growth is 0.67, the coefficient of granting of bank facilities to the public sector is -0.99, and the coefficient of granting of bank facilities to the private sector is 28.1 percent.

Trade expansion in OPEC member countries is -0.1 percent on growth Economic development has few effects. Financial development on economic growth is positive and significant only in the case of granting bank facilities to the private sector. Etemadian and Etemadian, (2020) analyzed the phenomenological experiences of strategic management in Iranian Customs. The qualitative research approach is phenomenological, and the Giorgi method was used for data analysis, which consists of 5 stages.

The study population is people who played a role in the organization's strategies and express and describe their experiences 12 people were selected through purposive sampling. Then, the required data was

collected through semi-structured individual interviews and then analyzed. By identifying the semantic units of the interviews and converting them into the main topic of the semantic units and then converting the main topic of the semantic unit into exploratory themes, 5 main concepts and 32 components were extracted for the three stages of strategic formulation, implementation, and control. The research results were categorized into 5 basic concepts: organizational culture and values, control, networks and communications, organizational performance and structure. Each of them has components in the stages of development, implementation and control that are categorized based on the experiences of individuals.

Janbazi et al. (2019) studied the factors affecting trade complexity in developing countries (Persian Gulf countries). The results of this study indicate that foreign direct investment has a positive and significant effect on trade complexity, economic growth has a positive and significant effect on trade complexity, exports have a positive and significant effect on trade complexity, and the degree of trade openness has a negative and significant effect on trade complexity.

Ghanbari (2014) studied the expectations of Turkish exporters from Turkish trade consultants in the United Arab Emirates. The findings of this study show that we have weaknesses in the areas of communication, information, legal and consulting expectations, as well as marketing expectations in Turkey, and the proposed model was also confirmed.

Conclusion

International trade is a trading system that occurs between different countries and plays an important role in the economy. Research shows that international trade and linkages open up new ideas and understanding between two countries. Governments in developing countries, especially in Africa, have adopted trade policies such as import substitution strategies, exchange rates, tariffs, and quantitative controls to promote international trade in the region.

These trade policies are motivated by the economic spillover effects of international trade such as productivity gains, intellectual capital, improved economic management, efficient allocation and better use of resources, reduced trade volatility, and technology diffusion. In recent years, the digital economy has been commonly recognized as a contributor to sustainable economic growth.

There is no doubt that the digitalization of the economy fuels economic growth. Digitalization promotes economic development through the proper use of human capital and natural resources and the accumulation of production capacity in extractive industries. The digital economy-growth nexus is theoretically well established in the literature, followed by empirical evidence at the country level demonstrating the vital role of the digital economy in productivity, growth, and development.

On the other hand, theoretically, it is argued that the digital economy encourages trade because trade leads to capital reallocation, and countries that engage in trade have a comparative advantage due to their specialization in development and exports to their trading partners, which increases economic growth. For example, some researchers (Lin, 2015; Ozcan, 2018; Rodríguez-Crespo and Martínez-Zarzoso, 2019) document the digitalization of the economy. It has had a significant positive impact on foreign trade. It is worth noting that the growth effects of international trade depend on the role of the digital economy. Therefore, it is argued that a well-functioning digital economy ensures low transaction costs, efficient capital transfers, rapid access to foreign markets, faster transfer of information and business data, and consequently boosts economic growth.

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Medical Artificial Intelligence and the Need for Comprehensive Policymaking

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Abstract:

Since the concept of artificial intelligence was proposed in 1956, it has led to numerous technological innovations in medicine and has completely changed the traditional medical practice. The present study mainly describes the application of artificial intelligence in various medical fields from four aspects: machine learning, intelligent robots, image processing, and expert systems. It also discusses the current challenges and future trends in these fields.

In line with the development of globalization, various research institutions around the world have conducted research in the field of application of artificial intelligence in medicine. As a result, medical artificial intelligence has achieved significant progress and its future prospects have revealed its increasing development and the need for comprehensive policymaking in this field.

Key words: Medical Artificial Intelligence, Policymaking, Machine Learning, Intelligent Robots, Image Processing, Expert Systems

1 Introduction

Artificial intelligence was coined by John McCarthy at the Dartmouth Conference in 1956, and the field of application of AI originated there. (Pope, 1997). Kaplan and Hanlin defined AI as the ability to systematically process external data and learn from it to achieve specific goals and tasks. (Kaplan and Hanlin, 2019). Artificial intelligence involves the use of machines to simulate human thought processes and intelligent behaviors such as thinking, learning, and reasoning, and aims to solve complex problems that can only be solved by experts. (Shen and Fu, 2018)

As a branch of computer science, the field of artificial intelligence mainly includes the following topics: machine learning, intelligent robots, natural language understanding, neural networks, language recognition, image processing, and expert systems (Arita et al, 2020). The concept of medical artificial intelligence was formed in the early 1970s (Patel et al. 2019). Its goal was to increase the efficiency of medical diagnosis and treatment with the help of artificial intelligence systems. After that, the development of medical AI can be roughly divided into four stages:

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- 1) Childhood (1980s): Decision tree algorithm was proposed and artificial neural networks continued to develop.
- 2) Adolescence (1990s): Expert systems continued to mature due to the emergence of support vector machines.¹
- 3) Youth (2000s): The concept of deep learning was proposed and machine learning became a prominent topic of medical AI.
- 4) And now, we are in the maturity period (2010s to present): because the technologies are relatively advanced.

However, the ability to interact with society still needs to be improved and we are still in the weak stage of AI. (Plegg and Combi,² 2013).

2 Applications of Medical Artificial Intelligence

2.1 Machine Learning

In 1959, Arthur Samuel³ used the term machine learning to describe a class of algorithms and classifiers. (Samuel,⁴ 1959). This algorithm automatically learns from input data and builds a model based on the input data to accurately predict new data. (Kumar and Kalra,⁵ 2016) and After that, machine learning algorithms experienced many developments: the back-propagation algorithm⁶ was proposed in the early 1960s.(Schmidhuber,⁷ 2015).

In 1982, Paul⁸ applied the automatic differentiation method⁹ to neural networks. (Verbosoff,¹⁰ 1982). In 1986, Ross Quinlan¹¹ proposed a famous machine learning algorithm called the decision tree¹², which involves classifying data according to specified rules. Tin Kam Hu¹³ developed an important algorithm called Random Forest¹⁴ (dual spatial feature extraction algorithm), based on the random subspace method¹⁵ which was constructed using decision trees (Hu,¹⁶ 1998). Vladimir¹⁷ invented the support vector machine model in 1995. In 2006, Geoffrey Hinton¹⁸, a pioneer in the field of deep learning¹⁹, proposed the deep learning algorithm.

¹ Support Vector Machines (SVM)

² Peleg & Combi

³ Arthur Samuel

⁴ Arthur Samuel

⁵ Kumar & Kalra

⁶ Backpropagation Algorithm

⁷ Schmidhuber

⁸ Paul

⁹ Automatic Differentiation

¹⁰ Werbos

¹¹ Ross Quinlan

¹² Decision Tree

¹³ Tin Kam Ho

¹⁴ Random Forest

¹⁵ Random Subspace Method

¹⁶ Ho

¹⁷ Vladimir

¹⁸ Geoffrey Hinton

¹⁹ Deep Learning

Deep learning is actually based on machine learning, and convolutional neural network¹ is one of its algorithms. In 2008, according to the standards of the Society for the Advancement of Medical Devices² and the British and Irish Hypertension Society³, a new blood pressure measurement model based on convolutional neural network, named blood pressure convolutional neural network⁴, was developed to solve the problem of low accuracy of pulse wave propagation pattern extraction⁵ in the traditional method, which increased the accuracy of this measurement. (Zhang, Zhou, Zhang, Wang, & Wangoff,⁶ 2018).

With the continuous development of computer-aided diagnosis technology, a huge data repository is generated during the screening, diagnosis, and treatment of diseases. (Abertney et al.⁷ 2010). Organizing and analyzing this data in a short period of time can be a challenge for doctors. Therefore, machine learning is increasingly used in medicine to help doctors predict diseases and treatment outcomes. Random forest is one of the most efficient algorithms in machine learning. In recent years, random forests have played an important role in medicine, especially in disease prediction. Patients with a history of idiopathic gastric ulcer⁸ may have a high probability of ulcer recurrence. In the event of a serious complication such as ulcer rupture, patient safety is compromised.

In 2018, machine learning was used to build a highly accurate model to predict rebleeding of idiopathic gastric ulcer (Wong et al.⁹ 2019). In another example, severe hand, foot, and mouth disease (HFMD)¹⁰ caused by enterovirus¹¹ can lead to serious complications such as pulmonary edema¹² and myocarditis¹³ in a small number of children (Liu, Wang, Yang, & Ou,¹⁴ 2014). In 2019, a Ctboost model¹⁵ was developed to predict severe hand, foot, and mouth disease, which showed higher specificity and sensitivity than other models such as decision trees and support vector machines (Hamdi, Amr, & Khalid,¹⁶ 2012). (In addition, machine learning can predict the effect of radiation therapy.

For example, patients usually undergo radiation therapy when they suffer from lung cancer, especially small cell lung cancer.¹⁷ However, long-term radiotherapy can lead to serious complications such as radiation pneumonitis¹⁸, which can lead to respiratory failure and death. (Kang et al.¹⁹ 2016). Using artificial neural networks, researchers have inferred a method for predicting radiation pneumonitis. They also developed a network with extensive memory and data learning that can show higher accuracy in predicting complications. (Su, Miften, Weedon, Sun, Elliott, & Mars,²⁰ 2015).

¹ Convolutional Neural Network (CNN)

² Association for the Advancement of Medical Instrumentation (AAMI)

³ British and Irish Hypertension Society

⁴ Convolutional Recurrent Neural Network-Blood Pressure (CRNN-BP)

⁵ Pulse Waveform Feature Points

⁶ Zhang, Zhou, Zhang, Wang, & Wang

⁷ Abernethy et al

⁸ Idiopathic Peptic Ulcer

⁹ Wong et al.

¹⁰ Hand-Foot-Mouth Disease

¹¹ Enterovirus

¹² Pulmonary Edema

¹³ Myocarditis

¹⁴ Liu, Wang, Yang, & Ou

¹⁵ CatBoost

¹⁶ Hamdi, Amr & Khaled

¹⁷ Small Cell Lung Cancer (SCLC)

¹⁸ Radiation Pneumonitis

¹⁹ Kong et al.

²⁰ Su, Miften, Whiddon, Sun, Light, & Marks

The black box problem in machine learning needs to be addressed. A black box is a neural network that includes a convolutional neural network for feature extraction and a convolutional neural network for blood pressure with a large short-term memory.¹ (In general, a neural network consists of neural layers consisting of input, processing, and output. The intermediate processing in a neural network is called the black box. This internal structure is hidden from the user's view (Guidotti et al.² 2018).

By solving the black box problem, the accuracy and computational power of machine learning can be improved and its scope of application can be expanded, which can lead to greater physician participation.

22. Intelligent Robots

In 1979, the American Robotics Institute³ defined a robot as: A programmable, multi-purpose actuator programmed to move materials, parts, tools, or other specialized devices through a variety of defined motions to perform various tasks. (Beasley,⁴ 2015).

Intelligent robots were used for surgery in the 1980s. For example, Puma560⁵ was used in neurosurgical biopsy⁶ in 1985 and prostate surgery in 1988. (Gu and Guo,⁷ 2018). RoboDoc⁸, developed in 1992, was the first intelligent robot approved by the US Food and Drug Administration.⁹ It was primarily used for hip replacement in orthopedic surgery. (Barger, Bauer, & Berneroff,¹⁰ 1998).

Currently, three types of robotic surgical systems have been approved by the US Food and Drug Administration, including Zues¹¹, Vinci da¹², and the automated endoscopic robot for optimal positioning (Wu, Zhao, Bai, & Li,¹³ 2019). Intelligent robots are widely used in orthopedics, urology, dentistry, and other fields due to their characteristics of minimally invasiveness, precision, and intelligence (Zhang et al.¹⁴ 2021).

According to the type of orthopedic surgery, robots can be classified into three categories, including joint surgical robots, spinal orthopedic robots, and reconstructive orthopedic robots (Zhang and Ye,¹⁵ 2019) Femoral neck fractures may occur in elderly patients with symptoms of hip deformity, pain, and dysfunction. These fractures can lead to complications such as nonunion and vascular occlusion of the femoral head, and the best treatment for these fractures is surgery. In 2018, a study investigated methods to reduce bleeding during surgery for femoral neck fractures. They compared two surgical methods, orthopedic robotic surgery and manual plating, and concluded that with the help of surgical robots, the

¹ Long short-term memory

² Guidotti et al.

³ The Robot Institute of America

⁴ Beasley

⁵ UMA 560

⁶ Neurosurgical Biopsy

⁷ Guo & Guo

⁸ ROBODOC

⁹ Food and Drug Administration (FDA)

¹⁰ Bargar, Bauer, & Börner

¹¹ ZUES

¹² Da Vinci

¹³ Wu, Zhao, Bai, & Li

¹⁴ Zhang et al.

¹⁵ Zhang & Ye

surgeon can accurately locate the surgical site and reduce the number of holes required, thus reducing bleeding during the operation. (Chunjiang et al.¹ 2018)

Smart robots are also widely used in gynecological surgery. For example, in the early stages of ovarian cancer, patients may suffer from abdominal mass, ovarian torsion, and tumor rupture. Therefore, it is important to perform surgical treatments in the early stages of this cancer. A meta-analysis showed that the da Vinci robot has many advantages during surgery, as it allows for the removal of multiple lymph nodes and a low rate of blood transfusion in patients. Therefore, this type of surgical procedure was even safer than laparoscopic surgery² (Huang, Zhang, Zhongmin, & Wang,³ 2016).

The robots that assist surgeons in clinical practice are mainly discrete robots with limited movement. However, in recent years, integrated robots with flexible structures have been emerging, gradually replacing discrete robots with the characteristics of flexible bending and good environmental adaptation. Integrated robots are expected to become the mainstay of surgical arm in the future. (Sun et al.⁴ 2010).

Although intelligent robots are widely used in the field of orthopedics, they still have disadvantages such as high cost, large size, and limited application scope (Gu and Gu, 2018). With the continuous advancement of medical technology and artificial intelligence, intelligent robots are being developed to gradually adapt to the development of future surgeries (Wu, Zhao, Bai, & Li, 2019).

2.3 Image Processing

Image processing is a technology for recognizing and analyzing images through computers. It is an important technology in the field of digital artificial intelligence and object recognition. (Zhang et al., 2021). The recognition process includes five steps of input processing, image preprocessing, image extraction, classification, and output generation. This technology can process image data quickly and efficiently. (Masood, Sheng, Li, Hu, Wei, Chin, & Feng,⁵ 2018).

For example, a study showed that image mapping technology⁶ can more efficiently and accurately identify the femur and trochanter, which are more prone to fracture, than traditional thermal mapping technology.⁷ (Fu, Liu, Liu, & Lu,⁸ 2019). They found that the distribution area of the fracture line is related to the age and gender of the patients. (Fu et al., 2019).

Image recognition technology has been very important in the diagnosis and treatment of intermass fractures. In addition, it is also used for disease prediction and diagnosis and bone lesion detection. (Liu, Zhang, & Yang,⁹ 2018) Currently, image processing technology is applied in many clinical fields. Cervical cancer is one of the four leading causes of death in women. (McGuire,¹⁰ 2016). And it is mostly caused by infection with human papillomavirus.¹¹ Patients do not experience any obvious symptoms in the early stages.

¹ Chunxiang et al.

² Laparoscopic Surgery

³ Huang, Zhang, Zhongmin & Wang

⁴ Sun et al

⁵ Masood, Sheng, Li, Hou, Wei, Qin, & Feng

⁶ Map Projection Technology

⁷ Heat Map Technology

⁸ Fu, Liu, Liu, & Lu

⁹ Liu, Zhang, & Yang

¹⁰ McGuire

¹¹ Papillomavirus

Although many treatments are available for patients with cervical cancer, such as surgery, radiotherapy, and chemotherapy, the prognosis of patients depends greatly on the early detection of cancer.

Based on deep learning, intelligent cervical image recognition can help doctors diagnose cervical cancer early with an accuracy rate of approximately 90%. (Hoskins, Kruger, & Yan,¹ 2020). In 2017, a study was conducted to see whether the accuracy of fungal keratitis diagnosis² could be improved by using image processing technology. (Wu, Tao, Qiu, Wu,³ 2018).

The researchers used a method called slit lamp examination⁴, analyzed the experimental data, and finally concluded that the image processing-based diagnosis method had higher specificity and sensitivity in diagnosing fungal keratitis than corneal biopsy. In addition, the image processing method can help doctors with insufficient knowledge to accurately diagnose the disease. Deep learning plays an important role in the application of image processing technology to cancer detection. (Liu et al.2018).

In 2017, a study used convolutional neural networks to detect malignant breast cancer. (Kooi et al.⁵ 2017) This method outperformed other advanced computer-aided diagnosis systems because the convolutional neural network had higher detection accuracy. Although image processing technology can help doctors in the clinical diagnosis of diseases, it cannot completely replace the role of doctors. Due to the different equipment used in hospitals, the resolution of the obtained images is also different and can affect the final diagnosis to some extent. (Liu et al. 2018).

We encounter several problems while using image processing technology. For example, in the multilayer neural network, the training model requires a large amount of initial data. In addition, supercomputers with high processing power have not yet become widespread. Therefore, further research is necessary in the future to solve the problems related to hardware devices, optimal algorithms, and technology integration.

2.4 Expert System

An expert system is a computer system that simulates the decision-making ability of experts (Myers,⁶ 1986) and, as one of the most successful artificial intelligence software, uses the existing knowledge management system⁷ to reason and solve complex problems. (Russell and Norvig,⁸ 2003). The development of expert systems can be divided into three periods: the inception period (1965-1971), the maturity period (1972-1977) and the development period (1978). (Kandaswamy and Kumar,⁹ 1997)(. In the early 1960s, the first expert system, Dendral¹⁰, was designed.

¹ Haskins, Kruger, & Yan

² Fungal Keratitis

³ Wu, Tao, Qiu, & Wu

⁴ Slit Lamp Microscopy

⁵ Kooi et al.

⁶ Myers

⁷ Knowledge Management System

⁸ Russell & Norvig

⁹ Kandaswamy & Kumar

¹⁰ Dendral

In 1972, the University of Leeds¹ developed the UpHelp² system to aid in the diagnosis of sudden abdominal pain. (Sim et al.³ 2011) In 1974, the University of Pittsburgh⁴ developed the Internist system⁵, which was mainly used for the diagnosis of complex diseases in internal medicine.

In 1976, Stanford University⁶ developed the Mysin Intelligent Diagnosis System⁷ which could be effective in the diagnosis of infectious diseases. However, for reasons such as ethical considerations, it was not used in clinical practice. (Shurtliff and Buchanan,⁸ 1975)

A study suggested that the use of personal digital assistants⁹ to provide expert knowledge to less experienced trained rescuers could significantly improve the quality of first aid. An evaluation of the findings of this study led to the conclusion that the use of expert systems could improve the quality of first aid to individuals and strengthen the weakest link in the chain of survival. (Ertel and Christ,¹⁰ 2001).

In another study, an expert system was used to diagnose different types of headaches, such as tension headaches, migraine headaches, and medication-induced headaches (Maysles and Wolf,¹¹ 2008). The computer-aided tool for this assessment, called Chat¹², accurately diagnosed 94.4% of migraine headaches and 93% of common headaches. The average accuracy rate was 98%, Therefore, the introduction of a Chat expert system can help physicians diagnose the type of headache, which is of considerable value in medical care (Maysles and Wolf, 2008).

The expert system has a high ability in clinical decision-making and shows advantages in the field of disease identification and diagnosis. However, it is necessary to increase the accuracy of the system, use the system's data related to the patient's medical history, and integrate it with the physician's clinical experience. In addition, medical knowledge and findings must be constantly updated so that physicians can provide more accurate diagnosis and treatment. (Sheikh Taheri, Sadoughi and Hashemi,¹³ 2014)

Conclusion

Artificial intelligence is expected to face greater challenges in the future. In data mining and machine learning, researchers are required to provide a structure to solve the black box problem. Also, the widespread use of fifth-generation mobile communication technology¹⁴, the increase in Internet penetration, and the development of robots connected to the Internet of Things, on the one hand, provide the basis for the growth and development of medical artificial intelligence, and on the other hand, remind us of the need for policymaking in this field. In image processing technology, there is a need to provide a more optimal training model for the participation of doctors in strengthening the rules related to diagnosis.

¹ University of Leeds

² AAPHelp

³ Sim et al.

⁴ University of Pittsburgh

⁵ INTERNIST-I

⁶ Stanford University

⁷ MYCIN

⁸ Shortliffe & Buchanan

⁹ Personal Digital Assistants (PDA)

¹⁰ Ertl & Christ

¹¹ Maizels & Wolfe

¹² CHAT

¹³ Sheikhtaheri, Sadoughi, & Hashemi

¹⁴ 5G

Also, the expert system must continuously update the knowledge base to provide more complete information to the medical system. In the past decade, significant advances have been made in the field of artificial intelligence. Research institutions in many countries around the world have collaborated extensively to realize these advances.

The volume of research related to artificial intelligence has developed rapidly during this period, as researchers in Asia, Europe, and the United States have achieved significant achievements in this field. Meanwhile, China has attached special importance to this issue and has gradually overtaken others. (Tran et al.¹ 2019) The rapid deployment of the fifth generation mobile communication technology network has made remote collaborative surgery possible, and has increased the stability, reliability, and safety of surgery.

This enables specialists to understand the operation process and patient status in real time and in real time, and thus effectively reduce the risk of surgery. Artificial intelligence has completely changed medical practices, significantly improved the level of medical services, and ensured human health in various aspects.

Given the increasing progress of artificial intelligence technology, a broader development prospect is expected for medical artificial intelligence in the future. This point reveals the need for sound policy-making to guide future research, the targeting and convergence of technology and medical budgets, and the planning of interdisciplinary cooperation.

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The Legal Framework of the World Trade Organization from the Perspective of Game Theory in International Law

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Abstract:

Game theory in international law is one of the new and innovative perspectives in the field of philosophy of international law. The difference of this perspective is that instead of mere theorizing, it seeks a logical and practical explanation of international legal rules and structures.

In this perspective, the rules of game theory are used for scientific reasoning and expressing theoretical frameworks. Game theory was first proposed in 1944 by mathematician John von Neumann and accompanied by economist Oscar Morgenstern in the field of economic issues. But since then, it has gradually entered other scientific fields, including international relations, sociology and other scientific disciplines.

In recent years, and for the first time in international law, two great thinkers, Jack Goldsmith and Eric Pasner, have used this theory to explain how and why international customs are formed. This has attracted the attention of international law scholars as a new approach. This article seeks to explain the legal structure of the World Trade Organization from the perspective of this theory. The authors believe that their findings will lead to a better understanding of the legal structure of this organization. To this end, first, the rules required by game theory are introduced and briefly explained, and then, from the perspective of the aforementioned materials, cases and agreements from the entire WTO collection are examined and logically proven, which are generally applicable to the entire legal structure of this organization.

Key words: Game Theory in International Law, Trade Liberalization, Cheating in The Game of Trade Liberalization, Behavioral Model of Trade Liberalization, Legal Structure of The WTO

Introduction

Today, the economy and, along with it, international trade, are of utmost importance to governments. It can certainly be said that at present, the position and dignity of governments in international relations are evaluated and determined not based on their military or political power alone, but on their economic power and influence.

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This issue is so real and tangible that we can compare the trade relations of governments to a full-scale war and see the cause of many of the behaviors and actions of governments in their hidden commercial and economic intentions.

Competition for international markets and efforts to gain more profit from international trade are a perfect manifestation of the self-interest of governments in their relations with each other. In the meantime, it is important to note that if this selfish behavior of governments does not find its right path, the global economy will be caught in a dead end that will not benefit any of its players.

This is the starting point for answering the question of why governments seek trade liberalization. But more importantly, how can the conflicting, reciprocal, and competing interests of governments be organized in such a way that any transaction or so-called game becomes a win-win transaction or game? In this regard, the hopeful news is that governments will benefit from a framework within which they can conduct and implement trade negotiations. Some have suggested that “the framework for trade liberalization will be like a language or a set of standards, like the radio waves that facilitate communication.”¹ (In other words, any organization for world trade can be said to be a mechanism for coordinating trade policies and agreeing on codes of conduct for trade.²

Although the lengthy documents and numerous procedures of the World Trade Organization make it possible today to refer to complex and intricate laws as WTO law, it should be noted that this organization does not pursue any goal other than what has been mentioned. Therefore, if the perspective is appropriate, the legal structure of this organization will be very simple and understandable.³

In international law, it is a tool that provides this perspective. In order to address the background of such a study, it should be noted that game theory theorists in international law have usually also addressed WTO law in their discussions. However, their main focus in such discussions has been limited to the impact of the organization's documents (as treaties or agreements) on the behavior of states.⁴

This article goes beyond these topics and seeks to examine the structure and legal framework of the organization itself from the perspective of this theory. In the authors' opinion, game theory can also explain the legal structure of the WTO with complete clarity and elegance.

Given that the audience of this material is typically those who do not have the necessary skills and familiarity with this theory, the mathematical language and confusing complexities of game theory will be avoided as much as possible in achieving the goal ahead.

The main assumption is that states benefit from trade liberalization and protectionism at the same time. If all states simultaneously act on protectionism, this will be to the detriment of all international trade actors. However, if, in response to a state that acts on liberalization, a state can

¹ Jack L. Goldsmith and Eric A. Posner, *The Limits of International Law*, Oxford University Press, 2005, p. 144.

² . Bernard M. Hoekman and Petros C. Mavroidis, *The World Trade Organization, Law, Economics and Politics*, Routledge, First Published, 2007, p. 15.

³ Game Theory

⁴ See: Hector Correa, “Game Theory as Instrument for the Analysis of International Relation”, *The Ritsumeikan Journal of International Studies*, 14-2, October 2001; Goldsmith and Posner, *op. cit.*

resort to protectionism or restrict access to its markets, the benefits will be much greater. will gain that is the result of the harm of the opposing states. From the point of view of game theory in international law, states are rational actors who seek to maximize their profits in their international behavior by avoiding losses.¹

This is also true in international trade liberalization. Game theory is able to explain the entire process of trade liberalization in the form of game models, assuming the self-interest of states. The explanation of this theory shows that the entire legal structure of the World Trade Organization is designed solely to frame the game of making profits and preventing fraud by its players.

To this end, game theory will first be introduced and the profitability of trade liberalization will be discussed. Then, the behavioral format of trade liberalization with game models, and the materials referred to the World Trade Organization and its documents and agreements, and a few of its cases, will be explained.

Although, due to the observance of brevity, not all agreements, documents and principles of this organization will be studied, the logic expressed will be applicable to the entire legal framework of this organization. Before entering into the main topics, it is necessary to briefly mention the relationship between international law and the law of the World Trade Organization

1. International Law and the World Trade Organization

Although today we can talk about the law under the title of the law of the World Trade Organization, it should be noted that the legal regime of this organization is in no way self-sufficient, independent and independent of international law.

The founding document, agreements, formation and operation of the dispute settlement body of the World Trade Organization are an inseparable part of international law. It is an undeniable fact that the birth of this organization and its law was in the broad environment of international law and its life continues in this environment.

The law of the World Trade Organization is considered a subset of international law, and it is precisely because public international law fills the gaps and deficiencies in the treaty of this organization that even the treaty establishing this organization and all its agreements must be interpreted in the light of the rules of international law (in particular the 1969 Convention on the Law of Treaties). The Appellate Body in the Japan-Alcoholic Beverages case, when trying to interpret Article 9 of the GATT 1994, beautifully addressed this point: "The WTO Agreement is a treaty, and the international equivalent of a contract.

It is clear that States have entered into a transaction in the exercise of their sovereignty and also in the pursuit of their national interests. In this way, in return for the benefits they expect to gain as members of the organization, they have agreed to exercise their sovereignty in accordance with the obligations entered into in the WTO agreements.

Accordingly, any interpretation of the organization's instruments must be based on the common intention of the contracting parties, not just those who are parties to the dispute. But the interesting

¹ Goldsmith and Posner, op. cit., p. 4

point is that the relationship between WTO law and international law is two-way. These two laws mutually enrich each other. Just as international law enriches WTO law, so too does WTO law enrich international law.

Public international law, and in particular its second source, the law of treaties and concepts such as the international responsibility of States, as well as principles such as the principle of the peaceful settlement of international disputes, are the driving force behind WTO law.

On the other hand, some, in an interesting interpretation, consider the law of the World Trade Organization as an accelerator in the service of promoting the goals and expanding the horizons of international law.¹In this context, before addressing the main discussion, it is sufficient to mention that all experts who have dealt with game theory in international law or have had related discussions have certainly made some minor references to the World Trade Organization in some of their discussions from the perspective of this theory. This in itself shows the continuity and mutual influence of international law and the legal regime of the World Trade Organization on each other.²

2. Game Theory in International Law

Game theory was introduced to the scientific community in 1944 with the publication of a book titled *Game Theory and Economic Behavior* by mathematician John von Neumann and economist Oscar Morgenstern.³

This theory is a branch of mathematics that is used in economics to analyze situations in which the actors surrounding the situation participate in a so-called strategic game. After the strong shock it caused in economics, this theory spread like wildfire in the years after 1970 and entered other fields of humanities, including law.⁴

A strategic game⁵is a scenario or situation in which every decision, action, or behavior of a person or persons surrounding the game does not necessarily affect others. In such situations, the outcome depends not only on the choices of the actor himself, but also on the choices and behavior of other competitors.⁶

Two companies that have a major share of the market for a particular product and want to decide on the price or volume of production, the leaders of two warring countries leading a war, economic policymakers deciding on the imposition of tariffs on imported goods, the decision to confess or remain silent on the part of a criminal who has committed a crime with the participation of another

¹ . Lamy, Pascal, "The Place of the WTO and Its Law in The International Legal Order", *EJIL*, vol. 17, No. 5, 2007, p. 984.

² Goldsmith and Posner, *op. cit.*, pp. 158-162 & Niels Petersen, *How Rational is International Law*, *EJIL*, vol. 20, 2010, p. 1255 & Correa, 2001, *op. cit.*, p. 198 & Parisi and Ghei, 2003, *op. cit.*, pp. 111-5.

³ This book is the first scientific work to analyze social interactions in a comprehensive and systematic manner. This book is considered a classic work on which modern game theory is based. The characteristics of this book are as follows: John Von Neumann and Oskar Morgenstern, *Theory of Games and Economic Behavior*, Princeton University Press, ISBN: 069110613, 60th Anniversary Edition 20, 1944.

⁴ Drew Fudenberg, *Game Theory*, The MIT Press, Cambridge, Massachusetts, Forth Printing, 1995, p. 1.

⁵ Strategic Game

⁶ Carmichael, *A Guide to Game Theory*, Pearson Education Limited, First Published, 2005, p. 4.

and is being interrogated at the same time, are examples of individuals participating in a strategic game.

For example, if in the first example, the two companies General Motors and Toyota have a monopoly on the production and sale of cars in a certain market, they will engage in a strategic game in that market; in such a way that a price reduction by one will lead to a decrease in the number of customers for the other, and on the other hand, an increase in production by one will lead to a decrease in the overall price of the products. In general, game theory seeks to analyze the formulated relationships between two or more actors. International relations theorists have found considerable help in explaining the interactions between international actors.

Realists in international relations, using this theory, believe that states are motivated only by their own self-interest and do not consider the needs and interests of other states unless they are threatened or seriously harmed by other states. Therefore, morality or human rights considerations, and even treaties or other formal forms of agreement, cannot limit or determine the behavior of states

In recent years, advocates of realism in international law have also used this theory to claim that these laws lack normative power and that states that observe them participate in a series of games, including the Prisoner's Dilemma, solely for the sake of profit. The experts who make this claim, namely Professor Jack Goldsmith and Eric Posner, have successfully explained the reason for the emergence of the rules of international law, the philosophy of observing them, and the shaping of the behavior of states by resorting to this theory and within the framework of profit-making.

With the help of this theory and the rules of rational choice,¹ they first developed the theory of customary international law and finally, by generalizing their theory to the whole of international law, they have questioned the existence of legal norms in the name of international law alone (as claimed by other philosophical schools).²

In recent years, this claim and the work of these two scholars, entitled *The Limitations of International Law*, have created a lot of noise in the academic circles of international law.³ Some have evaluated this claim of the realists skeptically.⁴ Some have tried to prove the effectiveness of

¹ Rational Choice

² The first work of these two thinkers was published in 1999, entitled *Theory of Customary International Law*. Jack L. Goldsmith and Eric A. Posner, "A Theory of Customary International Law", 66 *University of Chicago Law Review*. 1113, 1999. In their second work, these two theorists extended their theory to the whole of international law. Goldsmith and Posner, 2005, op. cit. Also, to consider other cases in which these two thinkers have used game theory for their theorizing. Jack L. Goldsmith and Eric A. Posner, "Further Thoughts on Customary International Law", 23 *MICH. J.INT. L* 7. 191, 2001 And Eric A. Posner, "Do States Have a Moral Obligation to Obey International Law", 55 *Stanford Law Review*, 2003.

³ As far as the authors searched, no trace of this major scientific challenge has been reflected in international legal circles (including scientific journals) in Iran. - To see criticisms of this view from the perspective of rational choice theory, see: Anne Von Aaken, "To Do Away with International Law? Some Limits to the Limits of International Law", 17 *EJIL*, 289, 2006. - To see criticisms in this regard from the perspective of traditionalists: Detlev F. Vagts, "International Relations Looks at Customary International Law: A Traditionalists Defense", 15 *EJIL*, 1031, 2004.

⁴ Jens David Ohlin, "Nash Equilibrium and International Law", *EJIL*, vol. 23, No. 4, 2012, p. 144.

international law and the existence of normative power and its binding nature by resorting to game theory.¹

Some, while accepting the reasoning and findings of these two scholars, did not consider their efforts to explain and elucidate all the limitations of international law sufficient and believed that stronger arguments should be presented in this field in the future.²

Of course, it should be noted that, according to these two scholars, the choice of self-interested behavior by states does not necessarily mean a lack of international cooperation or widespread violations of international law. Evidence for this claim is that they were able to describe the emergence and observance of international custom based on the rules of game theory and rational choice, in four behaviors: interest alignment,³ coercion,⁴ mere cooperation⁵ and mutual coordination⁶ and explain these four behavioral patterns with the assumption that states are rational and self-interested.⁷

In international law, the rational choice way of thinking, by employing game theory, seeks to answer the question of why and how states observe specific legal norms and how the emergence and durability of specific legal structures can be predicted and evaluated.⁸

The answer to this question will vary depending on the initial assumption in game theory. The assumption of his colleague Pasenro is that states are rational actors who seek to obtain the most benefit in international relations.⁹ As a result, states choose the behavior that is most beneficial to them, regardless of international law or any norm.

It is important to recall that in the introduction to this article, this assumption was proposed. In game theory, different situations are used to explain and interpret different behavioral patterns. Situations with pure common interests, games with divergent preferences,¹⁰ the prisoner's dilemma situation, unnecessary games, and one-sided games¹¹ are among the situations predicted by this theory.

The prisoner's dilemma is a situation whose explanation is necessary to understand the hypothesis of this article regarding the legal structure of the WTO, and therefore it will be discussed briefly. Two criminals who have committed a crime together are interrogated in two separate cells after being arrested. The interrogator offers each of the criminals a deal:

¹ See: Andrew T. Guzman, *How International Law Works: A Rational Choice Theory*, Oxford University Press, 2008 & Andrew T. Guzman, "A Compliance Based Theory of International Law", *California Law Review*, vol. 90, Issue 6, 2002.

² Van Aaken, *op. cit.*

³ Coincidence of Interest

⁴ Coercion

⁵ True Cooperation

⁶ Bilateral Coordination

⁷ Goldsmith and Posner, 1999, *op. cit.*, pp. 2-3.

⁸ Petersen, *op. cit.*, p. 1248.

⁹ Andrew T. Guzman. *How International Law Works: A Rational Choice Theory*, Oxford University Press, 2008, pp. 25-63.

¹⁰ Divergent Preference Games

¹¹ Unilateral Games

- a) If you expose your friend on the condition that your friend remains silent and does not expose you, you will be released and with your testimony, your friend will be sentenced to fifteen years in prison.
 - b) If both of you expose each other at the same time, you will be sentenced to three years in prison.
 - c) If neither of you expose each other and remain silent, you will be sentenced to one year in prison.
- If the behavior of silence X and the behavior of disclosure Y are considered, the table of benefits of each of these behaviors by criminals A and B will be as follows:

Prisoner B	Prisoner A	
Y	X	X
A Fifteen years in prison	B Free One year in prison each	Y
Three years in prison each	A Free B Fifteen years in prison	

In this game, if one of the criminals exposes the other criminal in exchange for his silence, he will gain the most, that is, he will be released, but his friend will suffer the most, that is, he will suffer fifteen years in prison.

If the criminals expose each other at the same time, each will be sentenced to three years in prison, and if the two achieve some kind of cooperation and remain silent at the same time, each will suffer only one year in prison.

In game theory, the final behavior that is mutually adopted is known as the optimal equation¹ which means that both players benefit from the simultaneous and possible profit.² If the prisoner's dilemma is presented once, it is most likely that both parties will seek to cheat and get caught by exposing each other.

However, if this dilemma is repeated, cooperation between the two parties will appear and ultimately the optimal behavior,³ which is not exposing to each other, will be adopted between the two parties. This is what is known in game theory as the Prisoner's dilemma.

It should be noted that even with the adoption of a cooperative strategy, there is always the possibility of cheating by either or both parties to the game. Trade liberalization, which is an international behavior, also has actors called states or independent customs territories. Here, the proposed puzzle will also be used to frame this behavior. But before that, since the assumption is entirely based on the belief that trade liberalization is profitable, it seems necessary to first prove the profitability of such behavior based on real data.

¹ Nash Equilibrium
² Carmichael, 2005, op. cit., p. 7.
³ Iterated Prisoner's Dilemma

3. The Economic Necessity of Trade Liberalization

The first question that arises in discussions about the World Trade Organization is what is the fundamental purpose of governments in liberalizing trade? Are governments pursuing moral and just goals through trade liberalization or is trade liberalization a means to gain greater benefits and better economic prosperity for governments. Some see trade in the World Trade Organization as a means through which members seek to achieve the goals mentioned in the preamble to the organization's charter.

But the fact is that all statistical data indicate the relationship between free trade and economic progress. All countries, even poor countries, have capital, including labor, industry, and financial resources, which they can use to produce goods or services for domestic markets or competitive international markets. Economists say that full profit is achieved if these facilities and resources are traded.

A study by the World Bank shows that developing countries that have been more integrated into world trade through trade liberalization have been able to achieve greater economic growth. (Adam Smith, who is now considered the father of economics, was the first to raise the flag of support for trade liberalization in 1776, writing his famous book *The Wealth of Nations*, in response to the slogan of “beggar thy neighbor” by the mercantilists, who were staunch supporters of protectionism. He likened governments to a family and stated that just as the prudent head of a family would never think of making something that would cost more than it cost to buy, so governments should not direct their production and industry in a direction in which they do not have expertise and superiority. For example, the father of a family would not try to make all the shoes or clothes for the family at home.

Years later, another great economist, David Ricardo, introduced the concept of comparative advantage in production, completing Adam Smith's arguments for the need for trade liberalization. Today, it is believed that the emergence of the World Trade Organization has its roots in the theories of these great economists.

Contrary to the mercantilists' view, the current state of international trade in the world and the desire of governments for economic cooperation cannot be explained in terms of a zero-sum game. Some believe that if the necessary conditions are met, including if the national interest demands it, governments may even engage in unilateral economic liberalization.

An example of this behavior is the liberalization that took place in Britain in the early nineteenth century. In the 1920s, the Smoot-Hawley Act of the US government taught a good lesson to advocates of protectionist policies. In these years, repeated protests by opponents of trade liberalization caused the United States government to move away from the trade liberalization approach and increase its average tariffs from 38 percent to 52 percent.

As a result of the implementation of this law and the retaliatory measures of its European partners, the value of US exports decreased from \$1.5 billion in 1930 to \$6.0 billion in 1939, and as a result, the country's manufactured goods trade also declined by about 11 percent.¹

In the decade of trade protectionism, from 1920, which ultimately led to the Great Depression of 1929, the volume of global production grew by an average of 0.5 percent annually and global trade grew by less than one percent.

This is while during the period of free trade boom from 1948 to 1973, over a period of 25 years, global production growth was 5 percent and global trade more than 7 percent, which in fact represented a six-fold increase.²

Researchers who use game theory in connection with trade liberalization or discussions related to the World Trade Organization take it for granted that economists consider trade liberalization to be a well-established and accepted thing and believe that it leads to greater welfare and better efficiency of the economy.³ Perhaps another reason for the enthusiasm of industrialized states for trade liberalization today is that the maintenance of internal and international peace and security is also closely related to the prosperity of international trade and the improvement of the economic level of states. In support of this claim, it should be noted that Sutherland, the then Secretary-General of GATT, considered one of the reasons for the outbreak of World War II to be the Great Depression of 1920.⁴ Despite all of the above, and despite the many benefits of participating in trade liberalization, each country has a consistent strategy of maintaining barriers to access to its markets and protecting its domestic industries.⁵

For this reason, international liberalization is not so simple and requires a more elaborate mechanism. In the following section, this international behavior will be better explained by resorting to game theory.

4 Game Theory and the Behavioral Model of Trade Liberalization

If we only consider the specialization of production and the resulting profits that accrue to the state in trade liberalization, ⁶liberalization can be explained by the positive-sum game model.⁷

Nevertheless, governments are aware that if they can both use the other party's free market and protect their own domestic market, they will achieve greater results and profits.⁸ This temptation

¹ Omidbakhsh, Esfandiar; From the General Agreement on Tariffs and Trade to the World Trade Organization, World Trade Organization, Structure, Rules and Agreements, Representative Office of the Trade Authority of the Republic of Iran, Commercial Printing and Publishing Company, 2010, p. 5.

² See: Financial Times, 15 Nov. 1993, p. 15.

³ Parisi and Ghei, 2003, op. cit., p. 111.

⁴ Ibid., p. 19.

⁵ Ibid., p. 112.

⁶ Positive-Sum Game, In this type of game model, no player gains at the expense of the other; such as students studying simultaneously for a final exam, where the passing of one will not affect the others; unlike an entrance exam, where the passing of one may result in the failure of others.

⁷ Ibid., p. 111.

⁸ Concession Erosion

facing governments in the game of trade liberalization is called privilege.¹ In addition, another factor that fuels government fraud² is the lobbying of domestic industry or product owners who lose their lucrative domestic market as a result of trade liberalization.

This may also lead governments to choose an ambiguous behavior, that is, despite accepting and participating in trade liberalization, they seek to circumvent it and shirk their obligations. In the authors' opinion, despite the fact that trade liberalization has taken on a complex form today, the backbone and basis of this system are still bilateral relations. It can be said that GATT, or the World Trade Organization, is an attempt to use bilateral instruments to solve the multilateral puzzle of liberalization.³

A review of the history of trade liberalization supports this claim. In 1860, after the Napoleonic Wars, Richard Cobden,⁴ a British industrialist, and Michel Chevalier,⁵ a leader of French free trade advocates, prepared the groundwork for the conclusion of a trade and political agreement between these two countries, which is known as the Cobden-Chevalier Treaty after their names.⁶

This treaty led to a series of trade liberalization agreements, all of which were bilateral, with no intention of becoming multilateral. However, given the existence of regulations to grant the government of Kamila El-Wadad treatment,⁷ in practice a kind of multilateral trading system was created. Despite the absence of any monitoring mechanism (anti-fraud tools) or institutional foundations (organizational such as the World Trade Organization), this regime led to a general reduction of tariffs.⁸

The reason for this success was that at that time, tariffs were essentially the only protectionist tool of governments and the complexity of the modern trading system did not exist. According to many, during these years the situation developed in such a way that at the beginning of the nineteenth century, Adam Smith's idea of the formation of an international economy based on the free exchange of goods was close to becoming a reality.⁹

In view of the previous material and with the above data (the mutuality of the relationship, the profitability of liberalization and the possibility of fraud), bilateral trade liberalization, like the arms race situation¹⁰ in international relations, takes the form of a prisoner's dilemma.¹¹ Two states A and B, which are trapped in such a dilemma, can have four behavioral patterns:

¹ Hoekman and Mavroidis, 2007, op. cit., p. 16.

² Cheating

³ Goldsmith and Posner, 2005, op. cit., p. 135.

⁴ Richard Cobden

⁵ Richard Cobden

⁶ Irwin, DA, *Against the Tide: An Intellectual History of Free Trade*, Princeton University Press, 1996, p. 230.

⁷ Most Favored Nation Treatment-MFN

⁸ *Ibid.*, pp. 323-328.

⁹ Mousavi Zenouz, Musa; *The Evolution of International Trade Law in the World Trade Organization*, Mizan, 2013, p. 36.

¹⁰ One of the topics studied in international relations based on game theory is the arms race between international actors.

¹¹ Correa, 2001, op. cit., p. 198

- 1- Both simultaneously refuse to liberalize or cheat in its implementation.
- 2- While state A attempts to liberalize, state B cheats or avoids liberalization.
- 3- While state B attempts to liberalize, state A cheats or avoids trade liberalization.
- 4- Both states simultaneously and reciprocally liberalize and do not cheat.

If liberalization behavior X and fraud or avoidance behavior Y are considered, the benefits of the parties if they adopt each of these the strategies will be as follows:

Government B Government A

Y	X	X
4.1	2.2	Y
1.1	1.4	

Thus, for each of these four cases, a reciprocal balance will be established. In the first case, both governments liberalize trade and thus each obtains a benefit of 2. In the second case, government A cheats or avoids liberalization in response to government B’s liberalization. As a result, A gains profit 1 but B loses and only gains profit 1. The opposite results occur in the third case. In the fourth case, both parties resort to protectionism or trade liberalization is destroyed as a result of cheating and therefore each of the parties only obtains profit 1.

Whatever is referred to as trade liberalization rights in the WTO is nothing but an attempt to preserve the first case and prevent the formation of the second two cases or a fall into the last case. Over time, self-interested governments were expected to move towards multilateral trade liberalization with rational preferences.¹

According to game theory experts in international law,² multilateral trade liberalization relations can be explained by the model of the alignment of interests.³ Perhaps for this reason, some consider the birth of GATT⁴ to be a coincidence.⁵

Although the establishment of the World Trade Organization (WTO) terminated the GATT 1947 and its Interim Implementation Agreement, which had become the most important legal document in international trade relations for many years, despite its apparent complexity, not much has been added to bilateral liberalization agreements, and today the basis of the multilateral trade liberalization system is the same bilateral agreements.⁶

¹ Andrew T. Guzman, *op. cit.*, pp. 3-14.

² Coincidence of Interest, The alignment of interests is the repetition and ultimately the solution of the prisoner's dilemma. In such a model, there is always the possibility of violating (or cheating on) cooperation.

³ Goldsmith and Posner, 2005, *op. cit.*, p. 139.

⁴ General Agreement on Tariffs and Trade (GATT)

⁵ Andreas F. Lurfeld; *International Economic Law*, translated by Mohammad Habibi Majandeh, second edition, Jangal, 2013, p. 25.

⁶ Pascal Lamy, the then Secretary-General of GATT, considers the first trade agreement that has left a trace in history to be from the 14th century BC and believes that nothing has fundamentally changed since that date and that

According to the authors, the most important reason that has caused the WTO documents to become more and more lengthy and extensive is the possibility of fraud by trade liberalization actors through resorting to interpretation or other methods of violating obligations.

It should be noted that in international law, “most states honor their obligations and when they fail to fulfill their obligations, rather than admitting that they have violated that obligation, they justify their behavior by reinterpreting the breached obligation.”¹ However, given that the latter component (fraud) plays a fundamental role in the present hypothesis, it needs to be addressed further.

5. Cheating in the Trade Liberalization Game

In practical applications, game theory is a mental framework that can be used to predict the decisions or choices of opposing players.² Given the inequality of gains in a multilateral trade liberalization relationship, deliberate violation of agreements or cheating in the process of granting reciprocal concessions is quite predictable.³

This fraud can be carried out by resorting to various instruments (such as quantitative restrictions, subsidies, dumping or other similar forms) or under various pretexts such as health or safety considerations. Suppose a newly enacted domestic law has adopted new regulations for the meat production process. If domestic producers have already and habitually complied with the requirements of the newly enacted law, it can be said that this new law has granted more protection to domestic products than previously agreed upon.⁴

In this regard, it is said that the prayer of the European Union countries regarding US genetically modified agricultural products, without having the necessary scientific support, only targets the products of American farmers.⁵

Governments that enter the game of multilateral trade liberalization to gain greater economic benefits, as wise players, always use any means to cheat. Among the ways in which governments cheat is to try to pass discriminatory laws. Such laws have the appearance of having objectives, for example health or security, but in practice, they keep other countries' products away from the domestic market.⁶

In this regard, governments try to close the door to any fraud through supplementary agreements. It should be noted that if there is a possibility of fraud in the documents of this organization, governments will not hesitate to erode the granted privileges and increase their overall profit in using them. To prove this, an example is mentioned in which the same article in the GATT

at the beginning of the 21st century, all trade liberalization is nothing more than bilateral agreements with minor changes. Pascal Lamy, “The Place of the WTO and Its Law in the International Legal Order”, *EJIL*, vol. 17, No. 5, 2007, p. 969.

¹ Goldsmith, Posner, 2005, op. cit., p. 31.

² Carmichael, 2005, op. cit., p. 3.

³ Goldsmith, Posner, 2005, op. cit., p. 144.

⁴ *Ibid.*, p. 148

⁵ *Ibid.*

⁶ *Ibid.*

agreement has caused fraud by governments and jeopardized the entire process of trade liberalization.

In this regard, it is necessary to point out that, based on the principle of complete states, any privilege that is considered for other states must be extended to all members of the WTO. However, Article 24 of the GATT is a major exception to this principle and, based on it, governments will have the authority to create customs unions or free trade areas.¹

In free trade areas, members may reduce tariffs to zero among themselves but at the same time have different tariff systems with other member countries of the organization.²

Again, governments may be drawn to free trade areas by one of the self-interested motives. Governments may have strategic political motives or other non-economic objectives. Examples of this are the free trade areas between Jordan and the United States,³ and Australia and the United States.⁴

These areas may lead to a change in the previous status of governments, and subsequently, the state affected by this change may seek to restore the previous status quo. This is known as “domino regionalism”⁵ or the “so do I effect”⁶ In this regard, for example, it is worth mentioning that New Zealand and Australia competed side by side in the export of agricultural products to the Thai market in previous years until Australia concluded a customs union agreement with Thailand, and the country's agricultural products entered Thailand at a lower tariff.

Since in such a situation, New Zealand's agricultural products had lost their competitiveness in the Thai market compared to Australian products, this country was eventually forced to enter a customs union with Thailand. But the most important issue is that governments that use Article 24 of GATT and achieve the goal of regionalism achieve a benefit that is added to the benefit of liberalization within the framework of the World Trade Organization.⁷

The provisions of Article 24 of GATT not only violate the principle of the best-in-class nation, but also reflect the strategic preferences of governments in the multilateral game of trade liberalization.⁸ Governments that enter into customs unions can obtain binding concessions from their trading partners without waiting for WTO negotiation rounds or having to extend the

¹ Customs Unions (CUS) or Free Trade Areas

² Meredith Kolsky Lewis, “The Prisoners Dilemma Posed by Free Trade Agreement: Can Open Access Provisions Provide an Escape”, *Chicago Journal of International Law*, vol. 11, No. 2, 2011, p. 634.

³ This agreement was a reward that the United States gave to Jordan for its peace with Israel. Colin B. Picker, “Regional Trade Agreements v. the WTO: A Proposal for Reform of Article XXIV to Counter to this Institutional Threat”, *26 U Penn J. Intl. Econ. L.* 267 (2005).

⁴ This agreement was also a reward that the United States granted for its participation in sending troops to the Iraq War.

⁵ Domino Regionalism

⁶ Me Too Effect

⁷ *Ibid.*, p. 643

⁸ See: Mansfield, Edward and Eric Reinhardt, “Multilateral Determinants of Regionalism: the Effect of GATT/WTO on Formation of Preferential Trading Arrangements”, *International Organization*, vol. 57, Issue 4, 2003.

concessions related to the union to all WTO members.¹ Today, it is believed that Article 24 of GATT has jeopardized the entire system of trade liberalization in the WTO.²

According to WTO regulations, customs unions must be regulated. For this purpose, an institution has also been envisaged to supervise these unions. However, the fact is that this institution has had no positive effect on the negative results of these unions and has not been able to prevent the formation of such unions.³

In summary of all the material mentioned in this section, it can be claimed that “all WTO documents have no more than one purpose, and that is to maintain the commitments made regarding access to each other’s markets.”⁴ Before examining some of these documents from the perspective of our hypothesis, it is necessary to review some principles of the WTO from the perspective of game theory.

6. Principles of the World Trade Organization and the Liberalization Game

For the World Trade Organization, various principles have been mentioned, such as transparency,⁵ predictability⁶ non-discrimination⁷ and other matters that have been added or subtracted depending on the opinion of the interpreters of the laws of the World Trade Organization.⁸

It is interesting that these principles are not explicitly mentioned as principles anywhere in the legal articles of this organization, but rather these principles can be extracted from the totality of the articles and spirit of the organization's documents. One of the fundamental principles of the World Trade Organization is the principle of non-discrimination.

This principle itself is created from the two principles of the perfect state⁹ and the principle of national treatment¹⁰, each of which can be said to be a pillar of the World Trade Organization. For the sake of brevity, these two principles will be examined only from the perspective of game theory.

¹ Jack L. Goldsmith, Erick A. Posner, *The Limits of International Law*, p. 150.

² Meredith Kolsky Lewis, “The Prisoners Dilemma Posed by Free Trade Agreement: Can Open Access Provisions Provide an Escape”, *Chicago Journal of International Law*, vol. 11, No. 2, 2011.

³ Jack L. Goldsmith, Erick A. Posner, *The Limits of International Law*, p. 150.

⁴ Boris Rigord, “The Purpose of The WTO Agreement on Application of Sanitary and Phytosanitary Measures”, *EJIL*, vol. 24, No. 2, 2013, p. 503.

⁵ Transparency

⁶ Predictability

⁷ Non-Discrimination

⁸ Hoekman and Mavroidis, 2007, op. cit., & van den Bossche, 2007, op. cit., & World Trade Organization, *The WTO Multilateral Trade Agreements*, WTO E-Learning, 2010 & Nicolas F. Diebold, *Non-Discrimination in International Trade in Services, Likeness in WTO/GATS*, Cambridge University Press, First Published, 2010.

⁹ The GATT Article 1 states that: "Any privilege, benefit, preference or immunity granted by a contracting party to products originating in or destined for other countries shall be accorded immediately and unconditionally to like products originating in or destined for other contracting parties." It is important to note that the first treatment that can provide the basis for the treatment of a fully-fledged state is the treatment of any country, whether contracting or non-contracting.

¹⁰ The principle of national treatment is stated in paragraph 2 of Article III of the GATT: The products of each contracting member shall not, after entering the territory of another contracting member, be subject, directly or indirectly, to any internal taxation or other charges in excess of those imposed on like domestic products.

The question that arises in this regard is why the principles of the perfect state and national treatment have been included in the legal framework of the World Trade Organization?

The reality is that, in order to achieve better performance by exploiting comparative advantage and increasing production in the WTO,¹ governments must, in addition to their mercantilist inclinations, also deal with the lobbying and protests of domestic opponents of trade liberalization.² Thus, the outcome of liberalization must be such that governments can support it.

Induced³ reciprocity, is a situation that the principle of national treatment and the principle of the perfect state of Al-Wydad bring about in the WTO system. "All that the induced reciprocity regime does is to prevent the emergence of unreasonable⁴ outcomes.⁵ A player who participates in a game with unreasonable outcomes (negative profits) is called a naive player.⁶

In a model of trade liberalization that has reached a state of induced reciprocity, the mission of the principles of perfect states and national conduct is to prevent one of the players from becoming a naive player, so that governments are encouraged to liberalize trade and continue to do so.⁷

According to Professors Goldsmith and Posner, the best plausible explanation for the principle of perfect states is that it allows the parties to a liberalization treaty to protect their interests against a new treaty between one of the parties and a third party.

"The principle of perfect states protects the interests of the contracting parties and that is all there is to it."⁸ In addition, by applying the principle of perfect states and non-discrimination, importers and consumers are encouraged to buy from suppliers with the lowest purchase price.⁹ To understand the logic of applying the principle of perfect states, three states (A), (B), and (C) are considered.

These three states have a trade agreement with each other and have reduced the tariff between them to five percent. Suppose that after a while, country (A) and (B) reduce the tariff between them to zero; by adopting this bilateral strategy and in the absence of a commitment of the state's perfect behavior, country (C) is effectively eliminated from the competition circle because with

¹ Mousavi Zenouz; *Ibid.*, p. 64

² One of the factors influencing the behavior of governments in trade liberalization is the interests of domestic groups that may support or oppose trade liberalization through their lobbies.

To avoid complicating matters, this factor is not included in the hypothesis of this discussion. For further explanation, see: Goldsmith and Posner, 2005, *op. cit.*, pp. 135. 162 & Parisi and Ghei, 2003, *op. cit.*, pp. 111-115

³ Induced Reciprocity- Induced reciprocal trading is a situation in which each player's strategy is tied together, as it were, by a golden rule.

When reciprocal trading reaches an automatic state, a kind of forced fit appears in the strategies of the parties; whereas in the game of trade liberalization, which has taken on the form of a prisoner's dilemma, in order for the parties' strategy choices to reach a state of induced reciprocal trading, this dilemma must be solved, that is, the parties must cooperate in a sustainable manner.

⁴ Sucker's Payoff

⁵ Parisi, 2003, *op. cit.*, p. 113.

⁶ Sucker Player- - The naive player cooperates when other players cheat or do not cooperate.

For example, this player gains -2 from participating in cooperation, while others gain +8.

⁷ *Ibid.*

⁸ Jack L. Goldsmith, Erick A. Posner, *The Limits of International Law*, p. 142.

⁹ Hoekman and Mavroidis, 2007, *op. cit.*, p. 16.

the tariff between (A) and (B) becoming zero, the importers of these two countries will not go to the market of country (C).

In this way, the principle of perfect government behavior in the World Trade Organization, like a lever, transforms the bilateral liberalization relationship into a multilateral relationship and any concessions obtained or granted in bilateral relations must be immediately granted to all members participating in the liberalization game.

Also, this principle helps maintain cooperation towards trade liberalization by increasing the cost of turning away from cooperation because governments must observe it against all opposing players if they raise their tariff.

On the other hand, this principle also greatly reduces the cost of negotiations. When a government negotiates with another government regarding its treatment of Once an agreement is reached, this agreement is communicated to other states and it is not necessary to negotiate this treatment with other states individually.¹

We have adopted and applied the principle of national treatment to ensure that liberalization commitments are not eroded by taxation or other domestic measures. This principle applies when foreign goods have gained entry into member countries. The ultimate goal of the principle of national treatment is to ensure that any protection of domestic industries is provided solely through tariffs. What makes the need to focus any tariff protection is compounded by the fact that it is usually difficult to identify non-tariff barriers.²

In conclusion, the goal of the principle of national treatment is to ensure that no government, by participating in the liberalization system, finds itself unwittingly disadvantaged due to fraud by other players. The reason for this is that, according to this principle, foreign goods, after being subject to tariffs and entering the domestic market, are placed on an equal footing with domestically produced goods.³

7. The Game of Trade Liberalization and Market Access

As mentioned, trade liberalization in the WTO is considered a strategic game⁴ in which the choices or behavioral actions of each player are based on the choices or behavioral actions of the opposing player.⁵

Accordingly, Article 28 of the GATT has based tariff negotiations on the basis of reciprocity between governments. This means that any member that requests a concession from other members during the negotiations must be willing to give a concession in return.⁶

In the game of creation, concessions include providing access to each other's markets. It should be noted that without providing access to domestic markets, there will be no possibility of

¹Ibid., p. 17.

² Jack L. Goldsmith, Erick A. Posner, *The Limits of International Law*, p. 147.

³ Mousavi Zenouz; Ibid., p. 4

⁴ Strategic Game

⁵ Carmichael, 2005, op. cit., p. 4.

⁶ van den Bossche, 2007, op. cit., p. 393.

international trade. For this reason, market access rules are at the core of WTO law. But the important point in the trade liberalization game is that for the game to have a reliable logic and framework, governments need a tool to measure the concessions granted and the concessions obtained.¹

It should be noted that access to the market for goods and services can be restricted by resorting to two tools: tariff barriers and non-tariff barriers. Tariff barriers basically include customs duties, and non-tariff barriers² include two categories of quantitative restrictions and other non-tariff barriers, such as low transparency of trade rules, unfair or unilateral application of trade rules or customs procedures, and technical barriers to trade.

In the trade liberalization game, governments give up protecting their domestic products in proportion to the concessions they grant. For this reason, transparency in the protection tools of the participating governments in this game is of utmost importance. Tariffs are tools that have the conditions of the principle of transparency. For this reason, tariffs are the only trade tool that the World Trade Organization has deemed valid and acceptable for governments to control the level of access to the market for goods.³

This is so important that it is said that the World Trade Organization, before seeking to liberalize and eliminate tariffs, seeks transparency in the trading system of countries.⁴ Accordingly, the tariff schedule⁵ and the commitment to observe the ceiling of tariff commitments⁶ are considered among the inviolable rules of the World Trade Organization. Accordingly, non-tariff barriers, even when they have legitimate objectives, such as protecting humans or the environment, must follow the special rules of the World Trade Organization due to the possibility of fraud and abuse by governments.⁷

“The whole framework of the World Trade Organization, in which tariffs are tolerated rather than eliminated, is a confirmation of the political and economic view that governments benefit from trade barriers regardless of their reciprocal behavior”⁸ But “perhaps the prohibition of non-tariff barriers is intended to narrow the bargaining range of governments and to clarify what constitutes cooperation and what constitutes infringement or fraud in a repeat of the Prisoner’s Dilemma.”⁹

Tariff barriers are more easily measured and comparable than non-tariff barriers. But more importantly, tariff barriers make negotiations more likely to proceed than non-tariff barriers, which are less measurable.¹⁰ If all countries agree to prohibit tariff barriers, they can easily determine,

¹ van den Bossche, 2007, op. cit., p. 376.

² Non Tariff Barriers

³ World Trade Organization, p. 98.

⁴ Ibid:47.

⁵ Tariff Schedules- A tariff ceiling is a tariff level that governments commit not to increase tariffs above for a specific good.

⁶ Bound Tariff

⁷ World Trade Organization, p. 118.

⁸ Jack L. Goldsmith, Erick A. Posner, *The Limits of International Law*, p. 147.

⁹ Ibid.

¹⁰ Ibid., p. 148.

first, Whether the concessions that other countries have given them in return are of equal weight and parity. Secondly, has the other country been faithful to this commitment?¹

One of the non-tariff barriers that the WTO absolutely prohibits is quantitative restrictions. The logic of such a ban in the WTO is further examined below. Governments use trade instruments to control the domestic economy.² But what can quickly limit access to the domestic market is the application of quantitative restrictions.³

Although WTO documents do not provide a clear and precise definition of quantitative restrictions, quantitative restrictions can be considered to include measures that limit the import or export of a particular product to a certain amount.⁴ The fact is that the case law of the GATT and the WTO has always sought to interpret this concept broadly.⁵ The goal of this broad interpretation and similar efforts is to encourage governments to resort to tariffs for protectionist purposes as much as possible.⁶

The prohibition of quantitative restrictions is intended to satisfy the members' demand to maintain a competitive relationship between their products and those of other countries and to prevent fraud. Perhaps for this reason, the GATT panel also considers the prohibition of quantitative restrictions to be necessary to maintain current trade and to provide predictability for future trade plans.⁷

But another value and purpose of quantitative restrictions is to protect the agreed tariff schedules. Otherwise, countries can use quantitative restrictions to undermine these schedules and disrupt the framework of the game.⁸ Moreover, governments, given their self-interest, inherently prefer tariffs to quantitative restrictions because quantitative restrictions create absolute restrictions, while restrictions created by tariffs are not absolute. Governments pursuing protectionist goals, even if they have not joined liberalization agreements, find it in their interest to use tariffs exclusively to protect domestic products.

In fact, exporting companies prefer to support countries that the form of support from these governments is limited in quantity because in this case they can avoid additional costs by regulating their export volume, while on the contrary, tariffs impose additional costs on these companies, which ultimately turn these costs into income for governments.

¹ Ibid., p. 147.

² Trade instruments refer to government regulations and trade policies that affect the import and export of goods.

³ Quantitative Restriction

⁴ van den Bossche, 2007, op. cit., p. 441.

⁵ In the *Türkiye Textiles* case, the dispute settlement panel considers the prohibition of quantitative restrictions as one of the pillars of the GATT. - *Turkey-Restriction on Import of Textile and Clothing Product*, Report of The Panel, WT/DS 34/R, 31 May 1999, paras: 9.63.

⁶ Goldsmith and Posner 2005, op. cit., p. 147.

⁷ *United States-Taxes on Petroleum and Certain Imported Substances*, Report of the Panel, L/6175 - 34s/136, Adopted on 17 June 1987, para. 5.2.2

⁸ World Trade Organization, op. cit., p. 118

8. Subsidies and the game of trade liberalization

Government subsidies paid directly or indirectly to domestic firms create many issues and problems in the game of WTO liberalization. Given that the mutual interests of governments converge in the case of subsidies, it is expected that the legal structure of the WTO will seek to regulate them in order to protect the principle of coordination established in this organization.¹

It should be noted that there is no way for governments to declare their need and enrichment from a tool called subsidies.² Governments need subsidies to achieve social and economic goals³, but they may also seek to cheat the game of liberalization through subsidies. Therefore, subsidies may have detrimental effects on the interests of trading partners.⁴

Cheating through subsidies would be when governments use subsidies to their domestic producers to change the outcome of competition in international markets.⁵ This is further complicated by the fact that governments can use subsidies formally (de jure) or practically (de facto) and in different forms, including export subsidies, import substitution subsidies and subsidies for the use of domestic products instead of imported products.⁶

But the important issue is that there will also be the possibility of fraud by governments by resorting to the claim that domestic products are subsidized. These governments, which have gained less from liberalization, will accuse the opposing government or governments of fraud by granting subsidies in order to erode their concessions through the imposition of countervailing duties.

During the 1970s and 1980s, the lack of clear rules on subsidies and related countervailing measures caused many disputes among GATT contracting parties.⁷ The problems and loopholes in GATT 1947 regarding subsidies caused countries to abuse and cheat in the liberalization game; in such a way that with the slightest hesitation Under the pretext of combating subsidies, they raised their tariffs on the product in question. In particular, the US government, ignoring the serious injury provision in GATT 1947, unilaterally imposed countervailing duties in accordance with its domestic law.⁸

¹ The 2016 World Trade Organization report shows that in 2019, an amount equivalent to \$911 billion in subsidies was paid by contracting governments, 89 percent of which was from developed countries. World Trade Organization, Exploring the Links between Subsidies, Trade and WTO, World Trade Report 2006, XXX, 112

² Rouhani, Hamed; Subsidies and Countervailing Measures System in the World Trade Organization, World Trade Organization, Structure, Rules and Agreements, Plenipotentiary Representative Office of the Republic of Iran, Commercial Printing and Publishing Company, 210, p. 2

³ Various forms of government need to provide subsidies: helping the poor, helping disadvantaged individuals and areas, national security, and similar matters.

⁴ van den Bossche, 2007, op. cit., p. 551.

⁵ Mousavi Zenouz; Ibid., p. 221...

⁶ Canada- Certain Measures Affecting the Automotive in Industry, Appellate Body Report, WT/DS 139/AB/R, WT/DS/142/AB/R, 31 May 2000, Para. 142.

⁷ van den Bossche, 2007, op. cit., p. 553.

⁸ Rouhani; Ibid., p. 281

For this reason, the GATT contracting parties put this issue on the agenda during the Tokyo Round negotiations (1973-9), which resulted in an agreement on the interpretation and application of Articles VI, XVI and XXVIII of GATT¹, which is generally referred to as the Tokyo Round Subsidies Code.² However, in 1986, many ambiguities and frequent disputes led the ministers of the contracting parties, in the Final Declaration of the Punta del Este Summit³, to call on the Uruguay Round negotiators to amend the provisions of Articles VI and XVI of GATT VII as well as the Tokyo Round Subsidies Code. The result of these negotiators' work was the "Agreement on Subsidies and Countervailing Measures"⁴, which today, together with Articles VI and XVI of GATT 1994, constitute the legal framework governing subsidies in the World Trade Organization.

To explain the logic of the emergence of the Agreement and the rules on subsidies in the World Trade Organization, the opinions and opinions of the delegations of this organization will be more telling: According to the delegation, in the Brazil-Aircraft case, the purpose and purpose of the Agreement on Subsidies is to apply multilateral order to subsidies, the granting of which causes disruption of international trade.⁵

Also, the dispute settlement body of this organization in another case, in summarizing the reason for the emergence of the Agreement on Subsidies and Countervailing Measures, states that the existence of such an agreement is based on the premise that certain interventionist behaviors of states cause disruption or imbalance in international trade.⁶

To face the fact that states need subsidies and also eliminate the possibility of fraud through resorting to them, the Agreement on Subsidies and Countervailing Measures seeks to increase and improve the provisions of the GATT regarding the use of subsidies and countervailing measures.

For this reason, it is said that there are two agreements at the same time in this agreement. This agreement first seeks to determine what types of subsidies can be granted by governments. Accordingly, subsidies are divided into two categories: non-permissible subsidies and permissible subsidies, and the condition for countervailing measures is that domestic investigations and assessments show injury or threat of injury to industries producing like domestic products. Therefore, countervailing duties can only be imposed if it is proven that there are subsidized imported products and that domestic products have suffered injury as a result of the subsidies paid by governments.

The requirement to maintain the balance of payments requires that countervailing measures take the form of an increase in tariffs above the tariff ceiling (previously agreed). However, since the investigation into the existence of a subsidized foreign product and its injurious effects is

¹ Agreement on Interpretation and Application of Articles VI, XVI and XXIII of the General Agreement.

² Tokyo Round Subsidies Code

³ Punta del Este

⁴ Agreement on Subsidies and Countervailing Measures

⁵ Brazil- Export Financing Programme for Aircraft, Report of Panel, WT/DS 46/R /14 April 1999, para. 7.26.

⁶ Canada- Measures Affecting the Export of Civilian Aircraft, Report of Panel, WT/DS 70/R, 14 April 1999, paras. 9-119.

conducted by the complaining State, a State objecting to countervailing measures is entitled to file a complaint with the WTO Dispute Settlement Body.

In order to eliminate the possibility of granting an artificial competitive advantage to domestic products through subsidies and to prevent fraud by claimants of subsidized products, the first condition for countervailing measures is that the financial contribution must be from a government or a public entity. The Korea-Merchant Vessels Panel held that a public entity is public if it is controlled by the government or other public entity and its action is attributable to the government.¹

Furthermore, financial contributions from non-governmental entities can also be defined as subsidies, and that this is the case if the government has delegated the task to a private entity or has directed it to carry out the aforementioned actions.² However, there are cases where the element involved in the fraud is not the government but private individuals. The following is a discussion of how the world organization deals with this type of fraud.

9. Price-cutting, a trick by private firms

Another type of business behavior that can provide a basis for fraud and distorting the liberalization game, and which the World Trade Organization has also addressed as unfair trade behavior, is price-cutting.³

This practice is carried out by importing goods into another country's market at a price lower than the cost price and less than the real value of the goods. An important difference between subsidies and dumping is that governments may not be aware of price-cutting practices by their firms. In the Japan-Semiconductors case, the GATT panel implicitly considered price-cutting to be the result of a private decision.⁴

Perhaps this is why the WTO documents and procedures condemn (not prohibit) anti-dumping measures.⁵ Dumping is one of the most complex and, at the same time, the most common methods of fraud in trade. In this method, a firm sells its products below the actual price in the hope of obtaining a monopoly market.

If this method of fraud achieves the desired result, the formation of a monopoly market compensates for the initial loss of the cheating firm. Given the harmful nature of dumping, even the domestic competition laws of some countries have prohibited such commercial behavior. An example of such laws can be seen in the antitrust law of the United States.

The conditions of trade liberalization and the need to maintain coherence in the process that has been referred to as the game, required that price dumping be explained, regulated, and harmonized between members through laws and agreements. However, at the time of the GATT negotiations

¹ Korea - Measures Affecting Trade in Commercial Vessels, Report of the Panel, WT/DS273/R, 7 March 2005, paras. 7-50.

² Mousavi Zenouz; *Ibid.*, p. 211.

³ Dejmakhvi; *Ibid.*, p. 290.

⁴ Japan- Trade in Semi Conductors, Report of Panel, L/6309-35S/116, Adopted 4 May 1988, para. 120

⁵ However, even conviction is possible if the price-cutting products cause serious harm to the domestic industries of the importing country.

in 1947 The negotiating governments disagreed on the need to apply countervailing measures against price dumping. However, at the insistence of the United States, this was also added to the GATT 1947 to clarify the framework within which governments could respond to price dumping.

However, the passage of time proved that Article 6, which was included in the GATT for this purpose, was not sufficient to respond to price dumping issues. The vagueness of the article caused it to be interpreted and applied inconsistently, so that many GATT contracting parties felt that anti-dumping measures were themselves becoming a barrier to trade.¹

However, the shortcomings of Article 6 of the GATT led to the creation of the Anti-Dumping Measures Agreement.² At present, it can be said that the real purpose of this agreement is nothing more than to support the cooperation that has been formed and to prevent fraud by members in the path of trade liberalization.³

It should be noted that, like subsidies, price gouging in the trade liberalization system can be used as a tool of abuse and fraud by those who engage in it, as well as by the government or those who claim to be harmed by it. Many believe that governments ignore dumping by their domestic firms in order to apply targeted protection. However, the World Trade Organization does not impose a duty on governments to prevent their firms from resorting to price gouging measures.

However, to prevent fraud by those who claim to be harmed by the import of price gouging goods, it stipulates that anti-price gouging measures must be taken after the necessary investigations and proof of the existence of the price gouging goods and their serious injury to similar domestic goods.⁴

Anti-price gouging measures,⁵ like measures against subsidies, will take the form of tariff increases. The important point is that the identification of price-cutting goods is based on a comparison of the actual value⁶ of that product with its export price

Therefore, all that the organization's rules allow for is taking measures to protect domestic industries, which under normal circumstances would be considered illegitimate and fraudulent actions.⁷

¹ van den Bossche, 2007, op. cit., pp. 514-515.

² Anti-dumping Agreement.

³ Of course, the emergence and completion of this agreement was not so simple. Issues related to anti-dumping measures were negotiated in the Kennedy Round (1967) and the Tokyo Round (1979), and in each of these rounds a specific code of conduct was agreed upon. Nevertheless, in 1980, anti-dumping measures became a serious challenge for countries in the North and the South. For this reason, anti-dumping measures were one of the most important axes of negotiations in the Uruguay Round, which ultimately led to the formation of the current Agreement on Anti-Dumping Measures.

⁴ Material Injury

⁵ Normal Value

⁶ Export Price

⁷ van den Bossche, 2007, op. cit., p. 513.

10. Escape from the liberalization game

The designers of the liberalization game at the World Trade Organization have recognized that governments may need to be flexible in their rules in certain circumstances to limit the requirement of reciprocal market access.¹

Ordinarily, in ongoing trade relations, losses are tolerated to the extent that they are not severe and irreparable. In principle, minor losses are tolerated in the hope that the situation will change, and profitability will return. In the face of heavy losses, WTO members have two options:

- a) withdrawal from cooperation and abandonment of the liberalization relationship by the injured party,
- b) the emergence of new cooperation in the form of giving the injured party a breathing space to find itself back to the first cooperation.

The second option, based on the assumption of the self-interest of governments, has the advantage that in this way, the initial cooperation (trade liberalization) will not be destroyed and will be restored. As could be expected, the WTO chose the second option in dealing with heavy losses of members.

In situations where one of the players suffers heavy losses, in order to overcome their temptation to leave the game and terminate the cooperation, Article 19 of the GATT (1973) has put forward the escape clause.²

According to this article, when the domestic industry of a country suffers serious injury from a sudden wave of imports or there is a possibility of such serious injury, the latter government will have the right to temporarily suspend its obligations under conditions that³ However, in order to prevent fraud through recourse to the escape clause, it is necessary to prove the necessity of resorting to this clause, in accordance with the procedures to be described. To this end, it must be ensured that the following conditions are met: first, imports of the product in question have increased significantly; second, the increase is the result of a previously unforeseen development; and third, the increase in imports has caused serious injury⁴ to domestic enterprises producing like or directly competing products.⁵

¹ Hoekman and Mavroidis, 2007, op. cit., p. 19

² Escape Clause

³ Article 19 reads as follows: If, as a result of unforeseen changes and as a result of the commitments accepted under this Agreement, including the tariff concessions granted, any product is imported into the territory of any contracting party under such conditions and in such quantities as to cause serious injury or threaten to cause serious injury to domestic competing producers of like products, that contracting party shall have the right to withdraw or suspend all or part of its commitments or concessions in respect of that particular imported product to the extent and for such period as may be necessary to prevent such injury.

⁴ Serious Injury

⁵ Directly Competitive

Paragraph 1 of Article 9 of the Agreement on Safeguards¹ sets out the procedures for proving the three conditions mentioned above. Accordingly, Members of the Organization must carry out specific investigations in order to resort to the escape clause.

The said investigations are themselves subject to requirements such as the need to publicly announce the conduct of the investigations, the need for interested parties to have the opportunity to comment on the investigations, and the need to issue a report containing the findings and arguments of the investigating authorities in each case.² On the other hand, under Article 12(1)(a) of the Agreement on Safeguards, Members must notify the WTO Working Party on Safeguards immediately of the initiation of an investigation. In the United States – Safeguards on Wheat Gluten case, the Appellate Body held that a delay of even a few weeks would violate this requirement.³

Although the countervailing measures in such cases need not necessarily take a specific form, it is likely that an increase in the level of the envisaged tariffs will be used. More importantly, however, any countervailing measures must be applied in accordance with the principle of the State of the Whole.⁴

The duration of the escape clause should not normally exceed four years and may, under certain circumstances, be up to eight years, but in no case more than eight years.⁵ In order to invoke safeguard measures, it is not necessary to prove⁶ unfair trade practices.⁷

The Appellate Body in the Safeguards on Line Pipes case emphasized that safeguard measures are available to Members. The WTO allows for restrictions on imports that are made in the course of fair trade.⁸

Anti-dumping and subsidy measures and circumvention of the liberalization game are referred to as the WTO's safety valves. The condition for applying countervailing measures is that they are in response to circumstances that could not reasonably have been foreseen at the time the tariff levels were agreed upon.⁹

The circumvention condition reflects the political reality that trade liberalization will not be tolerated if it causes severe and unexpected economic hardship.¹⁰ Uncertainty is a characteristic feature of the trade liberalization game and can negatively affect cooperation and lead to deviations from it. This feature may even prevent cooperation from taking shape in the first place. In such

¹ Safeguards Agreement

² Mousavi Zenouz; *Ibid.*, p. 229

³ United States – Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities, Report of the Appellate Body, WT/DS166/AB/R, 22 December 2000, paras. 108-112.

⁴ *Ibid.*, p. 236.

⁵ van den Bossche, 2007, *op. cit.*, p. 637.

⁶ Unfair Trade Actions

⁷ World Trade Organization, *op. cit.*, p. 235.

⁸ United States- Definitive Safeguard Measures on Imports of Circular Welded Quality Line Pipe From Korea, Appellate Body Report, WT/DS 202/AB/R, 15 February 2002, paras. 80-81.

⁹ Argentina – Safeguard Measures on Imports of Footwear, Report of the Appellate Body, WT/DS121/AB/R, 14 December 1999, paras. 91-96.

¹⁰ van den Bossche, 2007, *op. cit.*, p. 633.

circumstances, there needs to be an agreement to maintain the principle of cooperation under any contact between the actors. The existence of a condition for deviation from cooperation for a severely affected state provides such an opportunity for the parties to the liberalization game.

It is believed that by allowing the possibility of applying some exceptions not only the chance of reaching an agreement in the first step increases but also the level of cooperation in the entire game process.¹

Furthermore, game models predict that the greater the internal uncertainty of countries, that is, the more sensitive leaders are to unforeseen changes and the political pressures that arise from them, the more necessary the existence of an escape condition is to enter the liberalization game.

Conclusion

This article sought to examine the legal structure of the World Trade Organization from the perspective of game theory in international law. First, this theory was briefly introduced and its applicability in the legal system of the World Trade Organization was explained, and it was stated that game theory provides an argumentative framework and the final results of the inferences will depend on the initial hypothesis.

The hypothesis was that the goal of governments in participating in the trade liberalization system is to gain greater economic profit, but governments are also aware that if they cheat against the liberalization of others and protect their domestic markets, they will gain much more profit, which is due to the harm to the opposing governments.

The legal framework of the World Trade Organization is designed to maintain the equations of the trade liberalization game and prevent fraud by the participating governments in this game. Therefore, to demonstrate this, first the behavioral model of the players participating in the trade liberalization game was explained, and then this behavioral model, as well as other teachings of game theory, were evaluated regarding some of the principles and documents of the World Trade Organization.

Although it was not possible to review all the documents and agreements of the World Trade Organization in this context, the authors believe that the logic observed (framing the game and preventing player cheating) can be applied to the entire legal structure of this organization.

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¹ Ibid., p. 2.

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The Role of New Technologies in the Development of E-Learning (With a View to the Opportunities and Challenges Facing Universities and Higher Education Centers)

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Abstract:

The aim of this study is to examine new technologies in the field of information technology and the impact of these technologies on the field of learning, especially e-learning. Advances in information and communication technology have affected various dimensions of human life in recent years.

With the expansion of information technology and the penetration of remote communication tools, learning tools and methods have also undergone changes; As individuals can learn by using the available resources. Therefore, the development of e-learning courses has grown rapidly and expanded, and while improving the quality of education, it has become one of the most popular educational methods.

This article discusses the development and advancement of new technologies such as cloud computing, the Internet of Things, big data, responsive design, and wearable technology, and their irreplaceable role in e-learning. In addition, the challenges facing the field of e-learning are also examined.

Key words: E-Learning, Big Data, Responsive Design, Information Technology, Cloud Computing, Overlay Technology

Introduction

The increasing development and advancement of information and communication technology and its potential capacity to improve education have led educational researchers to prioritize the use of technology as a competitive advantage in the educational process. On the other hand, the need of developing societies to make optimal use of time and resources and to develop flexible learning has led to a greater tendency to use e-learning.

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E-learning was cited for reasons including saving time and money, providing the opportunity for distance learning, facilitating the educational evaluation system, providing direct access to digital educational resources, and creating equal educational opportunities. (Malek Mohammadi et al , 2014).

Today, information networks that have grown as a result of technological development have the greatest impact on the globalization of industry and services. With the advent of information and communication technology, the most important challenge for education in the twenty-first century has become how to educate learners who are prepared to face the changing and complex society of the information explosion era.

The rapid advances in science and technology, coupled with the rapid obsolescence of previous knowledge and information, require a type of education in which students are constantly engaged in learning and problem-solving, while at the same time enjoying the experience. Many educational psychologists believe that learning conditions should be organized in such a way that each student can engage in learning and activity based on his or her own abilities.

One of the educational methods in which students engage in activities and learning based on their abilities is the new method of e-learning and the role of new technologies in this field (Zahedbabalan, et al.2016). This type of information-seeking education has transformed in today's technological world, and despite challenges such as the increasing demand for higher education, insufficient budget, lack of time for school, and the need to remove the limitations of Geography has been given serious consideration.

In e-learning, quality is very important and in order to prevent the waste of human, material and financial capital, coordination between the development of educational systems is essential. E-learning takes advantage of modern technologies such as the Internet, databases, and knowledge management, and delivers educational content through electronic services such as content management systems, as shown in Figure 1. (Landeros & .Fuentes,, 2016).

This type of education has also created a lot of flexibility in educational methodology, content management, synchronous and asynchronous interaction between professors and students, organization and structure of courses, teaching plans, and finally student assessment, which causes the learning process to change from a focus on teaching-centered to a focus on learning-centered. (Zahedbabalan, et al.2016).



Figure 1 Learning Management System

Although this type of training has the potential to enhance learning and human resource development programs, it may not be appropriate for every organization or every training situation. Considering what has been said, it can be said that the most important achievements of information technology are increasing the quality of learning and students' learning, facilitating access to a large volume of information, rapid and timely access to information, reducing some educational costs, increasing the quality, accuracy, and correctness of course materials, and also improving the knowledge of students and teachers.

Given the large volume of educational demand on the one hand and the inability of the current system to respond to it, as well as the abundant capabilities of new e-learning methods on the other, the creation and development of e-learning systems has become a necessity. In this system, audiences can review their required educational units at any time and interact with each other. In fact, it can be said that e-learning is potentially available at any time and place. (Rezaei, 2016).

Recent developments in the field of information and communication technology and the penetration of communication tools from remote to homes and offices have led to changes in educational tools and resources, and today, the audience of this educational method, having a computer terminal or even a mobile device anywhere, can interact with learning management systems and learn the materials presented through them.

Today, various web-based programs have been developed in the field of e-learning and are used as modern teaching methods in various educational and commercial institutions and centers. (Rezaei 2016).

The web-based learning environment is so suitable and interesting that online learning gradually becomes a process in education. Rapid changes in information and communication technology, and especially the information society that has emerged due to the web-based e-learning environment, make the traditional learning style ineffective and inappropriate. Web-based e-learning stimulates the motivation and educational demands of individuals.

This learning style, in contrast to the flexible and non-interactive style of textbooks, provides information with diverse content related to their needs. (Taqwa and Baba Ahmadi, 2013).

A Review of Teaching Methods and Technologies

Generally speaking, teaching methods can be divided into two groups: traditional and modern. In traditional methods, the individual is physically present in the classroom; This method has many disadvantages, including wasting time, reducing the learning factor, and increasing learning costs, such as travel and accommodation. (Rabiei and Faryadi, 2016). Today, with new technologies, including e-learning, web-based learning, distance learning, and online learning, the learning process has been facilitated and its costs have been reduced; so that an individual can use this type of learning at any time and place where he has access to the Internet and the network. (Zarei and Jafari-Navimipour, 2014).

- E-learning: E-learning is a process that is based on computer, multimedia and processor technologies. (Prihartini, et al, 2016). E-learning is currently used by many organizations as a method to improve the knowledge skills of employees. For example, today there are many compact educational boards on the market that can be used for education at low cost. Therefore, e-learning is a method through which individuals can acquire new skills or knowledge and improve their performance.

- Web-based education: The emergence of the Internet and web technology includes a wide range of networks. In addition to giving rise to a wide range of network applications and services among ordinary people, researchers, and scholars from various disciplines, it has also led to the convergence of various types of communication services to the benefit of service providers and consumers. Web-based learning has

become a common practice in face-to-face teaching and learning classrooms because these methods are effective and efficient in facilitating teacher-student interaction and achieving educational goals. (Johnson, 2001) .

- Distance learning: Distance learning refers to learning in which the learner and the teacher are geographically separated to some extent and require communication through media (audio, video, etc.). This type of learning has several characteristics such as the separation of individuals, the existence of an institution such as Payam Noor University for planning, preparing, and providing educational materials, the use of technical media such as educational files or self-reading books, the possibility of Two-way communication via the web with learning management systems and the possibility of task sharing has been proposed (Diwakar et al., 2015).

- Online learning: This type of learning has emerged in the context of modern e-learning systems. Online learning allows individuals to access the training course at any time without the need for retraining, allowing them to adapt to the system and the training course. (Nakajima and Ono, 2015).

- Learning with the help of intelligent support agents: The use of intelligent agents was first described by Zoe and colleagues (Xu D, et al., 2014). An intelligent agent is an entity that recognizes its surroundings in an environment and performs actions on the environment, and all the actions it performs are aimed at achieving its goals. These systems have the ability to learn and then use their acquired knowledge to achieve their goals. A virtual learning environment based on intelligent agents can serve as a powerful and dynamic tool for online learning for individuals, taking into account their learning speed, interests, and goals. (Scott and Soria, 2017). , (Herrero, et al. 2005).

- Applied learning: Application and comparison is a practice in which two or more phenomena are placed side by side and analyzed to find similarities and differences. One of the e-learning methods is the applied method. (Tricks, Godbol, 2016). In this method, while using the theory of activity, different learning systems are compared and the best one is selected according to the country's conditions. (Chu, et al . 2016).

- Learning based on knowledge discovery: Many individuals cannot attend classes face to face due to their work responsibilities. The knowledge discovery system works based on the data of the students' academic year (Sangodiah, and Heng, 2012). In this system, the time series analysis method is used that reflects the time of attendance of each student.

- Learning based on a decision support system: Most e-learning systems force students to follow the content created by a teacher in learning. In programming, it also provides learning content based on the results of user profile data and students' initial priorities. (Jung, Choi, & Song, 2012). A review of the characteristics and growth of e-learning in universities in poor countries. The growing need for education, their lack of access to educational centers, lack of economic opportunities, lack of experienced teachers, and high costs spent on education have led specialists to invent new methods for education with the help of information technology that are both economical and high-quality, and can be used simultaneously. It educated a large number of students. The most important features of this type of education are (Rabiei, and Faryadi, 2016),

- Collaboration: The most important feature of this education is the increased tendency towards cooperation between teachers and students.

- Being connected and connected: E-learning creates a connection with vitality. Students can easily communicate with each other and their instructors via email and video chat, and access the science learning network and collaborative projects.

- Learner-centered: Instructors and students are the two main components of an online classroom. However, many classes are usually recorded and can be used by learners in the future. This means that e-classrooms are reusable.
- Borderless: E-learning transcends the boundaries of classroom walls and allows access to information and people anywhere. This type of education is very beneficial for students living in remote locations and is in the interest of social justice.
- Community: Learning takes place in a community, whether it is a designated learning community through a school or a specific organization or in a real physical community such as a city or town. E-learning can connect communities by increasing accessibility and connectivity.
- Discovery: Many online activities are a form of discovery learning. Like computer games that can be very entertaining by exploring the game's path. Learning in class can also be entertaining. A more formal type is problem-based learning, which is commonly used in professional training. In this approach, students are presented with problem situations and asked to work on identifying and providing solutions and strategies.
- Knowledge Sharing: Although knowledge sharing is the core of education, before the creation of computer networks, knowledge sharing was limited to books and magazines. Putting information on the Internet or any other electronic device makes it more accessible to other people.
- Multiple Senses: Learning through ways such as images, colors, movement, and touch has the greatest impact. A look at the growing use of e-learning in the country can be very useful in higher education planning. Tables 1 to 13 indicate the acceptance of these courses in the higher education sector. Table 13 shows that student enrollment in the humanities sub-group is much more diverse than the total of other majors (Afghanistan Higher Education Statistics, Academic Years 2012 to 2016) Table 1. Distribution of the Number of Electronic Enrollees in Higher Education Institutions in the Country.

Table 1. Distribution of the number of registered higher education institutions electronically, 2012-2013

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Humanities	2557	4873	605	1091	69	187	3231	6151
Basic Sciences	445	681	0	0	0	0	245	681
Medical Sciences	23	52	00		0	0	23	42
Technology and Engineering	852	2971	165	420	12	44	1029	3435
Agriculture and Veterinary Medicine	40	78	0	0	0	0	40	78
Arts	49	54	51	113	0	0	100	167
Plural	2966	8709	821	1624	81	231	4868	10564

Table 2. Distribution of the number of students enrolled in the Master's degree program electronically, 2012-2013

Type of education	Public	Non-profit	Free	plural
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Master's degree	2994	7879	268	1013	69	178	4231	9079

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	2826	7612	671	1291	0	0	3497	8903

Table 3. Distribution of the number of registered students in higher education institutions of the country using electronic methods

Non-attendance in the 2013-2014 academic year

Table 4. Distribution of the number of registered students in higher education institutions of the country using electronic methods. the 2013-2014 academic year

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Humanities	1958	4783	462	847	0	0	220	5631
Basic Sciences	129	215	0	0	0	0	129	215
Medical Sciences	65	113	00		0	0	65	113
Technology and Engineering	670	2489	113	258	0	0	783	2747
Agriculture and Veterinary Medicine	3	11	0	0	0	0	3	11
Arts	0	0	96	186	0	0	96	186
Plural	2826	7612	671	1291	0	0	3497	8903

Table 5. Distribution of the number of students enrolled in the Master's degree program electronically, 2013-2014

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	2676	7183	254	914	0	0	914	8097

Table 6. Distribution of the number of registered students in higher education institutions of the country using electronic methods. Non-attendance in the 2014-2015 academic year

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	2978	7502	266	668	0	0	3611	8170

Table 7. Distribution of the number of registered students in higher education institutions of the country electronically. Separation of orientations in the academic year 2015-2016

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Humanities	2228	5088	149	323	0	0	2377	5411
Basic Sciences	73	100	0	0	0	0	73	100
Medical Sciences	124	205	0		0	0	124	205
Technology and Engineering	253	2077	98	258	0	0	629	2372
Agriculture and Veterinary Medicine	10	18	0	0	0	0	10	18
Arts	12	14	19	50	0	0	31	64
Plural	2978	7502	266	668	0	0	3244	8170

Table 8. Distribution of the number of students enrolled in the Master's degree program electronically, 2014-2015

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	2908	7265	183	516	0	0	3090	7783

Table 9. Distribution of the number of students enrolled in the Master's degree program electronically, 2015-2016. Non-attendance

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	3411	7713	632	1601	1936	4444	5979	13758

Table 10. Distribution of the number of registered students in higher education institutions of the country electronically. Separation of orientations in the academic year 2015-2016

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Humanities	2433	5093	448	1021	1568	3280	4467	9394
Basic Sciences	84	121	3	9	1	1	88	131
Medical Sciences	179	268	0	0	1	2	180	270
Technology and Engineering	650	2129	146	497	241	957	1037	35183
Agriculture and Veterinary Medicine	36	61	0	0	1	3	37	64
Arts	29	41	35	74	106	201	170	316
Plural	3411	7713	632	1601	1936	4444	5979	13758

Table 11. Distribution of the number of students enrolled in the Master's degree program electronically, 2015-2016

Type of education	Public		Non-profit		Free		plural	
	Woman	Total	Woman	Total	Woman	Total	Woman	Total
Non-face-to-face	3285	7433	392	1044	1914	4340	5591	12817

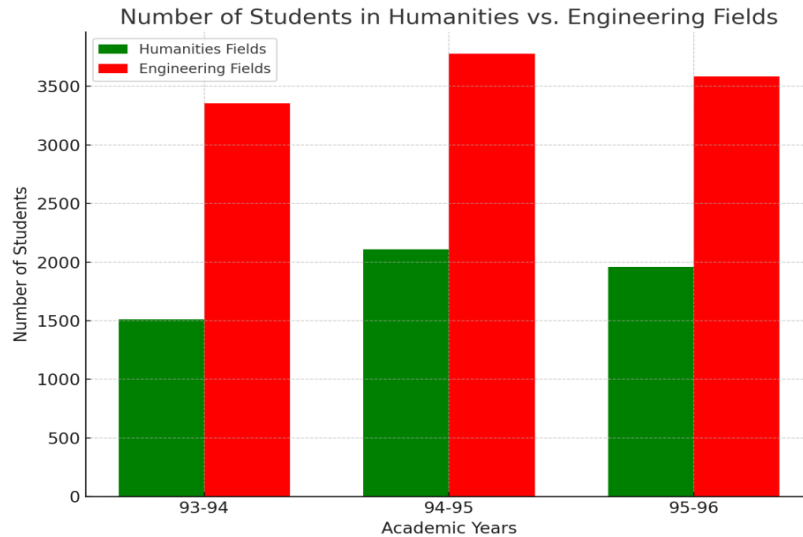


Chart 1. Comparison of students in humanities majors in e-learning across the country

From the data in the above table, it can be seen that one of the potential capacities of the field of e-learning is the design of interdisciplinary courses, especially a combination of humanities and engineering disciplines. In the analysis and studies conducted in this study and also based on the studies conducted in (Malek Mohammadi and Shirvani, 2014), (Zahed Bablan, Moeini Kia and Derakhshanfard, 2016), the obstacles to the development of e-learning in universities and higher education centers within the country can be described as follows:

- Comprehensive educational and planning policies: Initially, the policy of a state or organization should be on the development of new technologies. The existence of a technology-based policy makes a development-oriented perspective and technology-oriented decisions dominate all policy decisions.
- Infrastructure: In developing countries, large areas still lack electricity and proper network infrastructure, and the distance to the nearest telephone station is more than a few kilometers. In developed countries, wireless technology is used.
- Language, Capacity Building, and Finance: Perhaps the most serious challenges facing the emergence of e-learning in developing countries are economic and financial problems. Due to the high cost of technology and training in e-learning systems and the poverty of the people, e-learning has not developed as well as it should.
- Organizational challenges: In the development of e-learning, conditions for e-learning activities are needed, including the creation of digital libraries, educational management and student counseling, as well as the mobilization of teachers and other staff for the development of new courses.
- Technological challenges: The impact of technological issues on e-learning is quite clear. From this, technological challenges are divided into three related processes: selection and development of appropriate technology, application of technology, and performance of technology. These technologies include tools to support learning processes and educational management.
- Social challenges: These are challenges that people face as members of society. One of the important social constraints in developing countries is the discussion of laws and regulations. In developed countries,

due to the concentration of bureaucracy and structuralism in organizations (and educational institutions), the free and flexible nature of virtual learning has faced challenges in legislation and legal support.

- Cultural challenges: Culture is one of the important and fundamental categories in the implementation of e-learning. Due to the existence of different value systems and foundations in the cultures of different nations, the presence of e-learning in these countries will definitely face different reactions. Today, in education, the discussion of localization is highly emphasized and should be compatible with local and cultural conditions.

The proposed model and new technologies in e-learning The development and advancement of new concepts such as gamification and new technologies such as cloud computing, the Internet of Things, big data, responsive design and wearable technology, next-generation printing and mobile technology have an alternative role in the field of e-learning.

Cloud computing is a technology that has revolutionized the way learning is delivered. Concepts such as cloud learning, cloud classrooms, and cloud campuses are rapidly gaining traction today. Emerging universities should do their utmost to take advantage of these technological and innovative opportunities. (Figure 2)

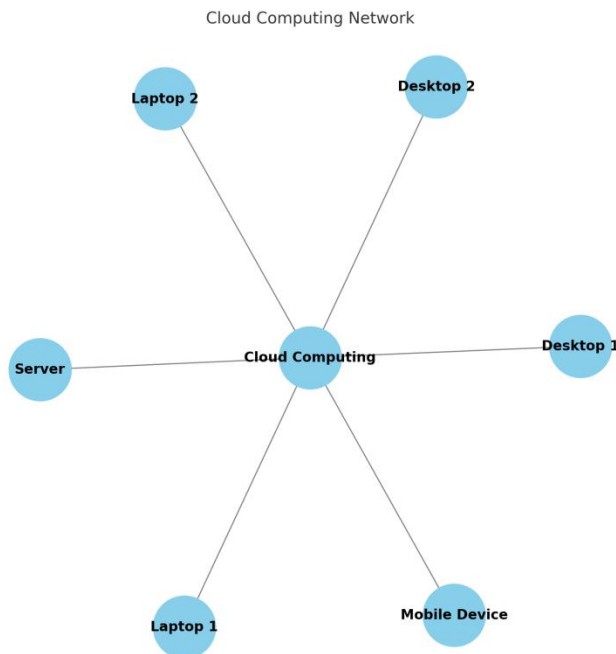


Figure 2. Cloud computing and cloud classroom

Cloud learning refers to learning in a virtual world. Many universities and higher education institutions are moving towards cloud campuses.

Cloud learning systems, with the ability to integrate with concepts such as big data, can transform teaching and learning to more specialized, personalized, and adaptive levels. A free online course, or MOOC, is an online course that is freely available to learners worldwide via the web. These courses are typically similar to university courses and have seen significant growth over the past few years. What is clear is the emphasis on the fact that in the future, much of the learning will be entirely cloud-based (Figure 3).

Responsive e-learning design is a concept that has emerged in the new world of learning where learners spend most of their time in front of multiple screens, including computers, laptops, smartphones, and so on. According to a report by Google search engine, 90 percent of media interactions are screen-based.

Big data deals with large amounts of unstructured data that flows through multiple sources in the digital world, and a large volume of it is being generated at any given moment. In e-learning, big data is data created for learners in relation to learning content and is shared through learning management systems, content management systems, and other media, including social networks, through which learners interact with learning programs.

7D printing is another technology whose development will change and transform many aspects of life in the world. This technology, in turn, transforms a digital design (a 7D file) into a real 7D physical product.

Although 7D printing technology is in its early stages of development, its impact on the learning and teaching landscape, especially e-learning, is predicted to be profound and powerful. 7D printers offer students and faculty more opportunities for powerful hands-on experiences and also enhance their creative thinking.

This technology provides students with a very engaging and useful learning experience by simulating buildings, dams, bridges, vehicles, and many other objects. This technology is powerful enough to transform student learning in the near future.



Figure 3. Host massive open online courses with participants from all over the world

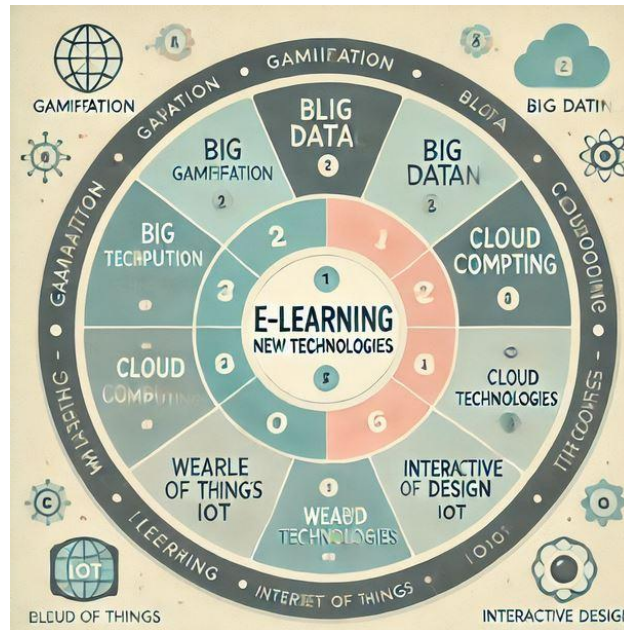


Figure 4. Proposed model of new technologies in e-learning

Wearable technology, such as smart glasses, augmented reality headsets, mixed virtual reality headsets, or smart bracelets that ultimately lead to wearable computing capabilities, can illuminate the field of e-learning more than any other field. Wearable digital devices with electronic functional support systems can provide continuous learning and support for mobile users. These devices can be viewed as tools for continuous learning. Gamification refers to the use of game elements and concepts in non-game contexts.

Gamification uses natural stimuli to engage the audience. Today, gamification, with its numerous benefits for learners, can play a major role in increasing the enjoyment and effectiveness of the learning process and will be able to become a popular approach in the e-learning industry. Today, extensive research has been conducted in the field of e-learning with gamification.

In the article by Rosta et al. 2016 and Kormak et al. 2016, a lesson unit was designed with gamification techniques so that the learner could learn the lesson better and with more motivation.

Discussion and Conclusion

Information technology has been able to play an important role in various fields. The field of education is also one of the fields that has undergone significant changes due to information technology. The increasing demand for higher education and public acceptance has led to a very large number of applicants for higher education every year, which has led universities and institutions to shift their approach towards e-learning.

In addition to the growing demand for e-learning, the possibility of diversifying discussions and trends based on individual interests, the possibility of using sound, images and multimedia, providing more space for thinking and understanding the material because the presentation of education is not limited to a specific time, providing the possibility of repeating and reviewing the lesson, the communication between the teacher and the student is two-way and continuous, and the possibility of asking questions and answering them is always and at any time.

The obstacles that universities face in their development should be identified in a professional manner and steps should be taken to remove them. This article introduces new technologies in the field of education

and suggests the use of these techniques and technologies, including gamification, to increase the quality of e-learning.

New methods are emerging in light of the new needs of society and the problems of previous methods. By utilizing these technologies and concepts, while paying attention to human interactions alongside discussions related to the field of educational psychology and educational technology, Azainro contributes to better learning of concepts and the advancement of e-learning.

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Claims in Civil Cases Considered by the Courts

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Abstract:

According to Article 4 of the Civil Procedure Code of the Republic of Azerbaijan, all people and legal entities has the right to seek judicial protection as stipulated by law to safeguard their legally protected rights, freedoms, and interests. The prohibition against seeking judicial resources is illegitimate. A lawsuit is a primary method for commencing civil proceedings in a specific case, serving as the catalyst for judicial protection and the administration of justice.

The significance of adjudicating disputes and rendering final rulings in courts is complex and includes several essential elements. Courts are essential institutions that uphold the rule of law. They ensure the correct implementation of laws and the equitable resolution of legal conflicts. Conclusive verdicts offer legal assurance for the safeguarding of citizens' rights and liberties. A judicial ruling addresses the uncertainty present in contested legal relationships, providing clarity, stability, and enforceable legal authority (Garibli, 2024).

Key words: Civil procedural law, lawsuit proceedings, claim, statement, statement of claim, subject of the claim, grounds for claim, litigation

Introduction

Filing a claim in legal proceedings, submitting a statement of claim to a court, is a constitutional right and a part of the right to judicial protection of rights and freedoms enshrined in Article 60 of the Constitution of the Republic of Azerbaijan. The majority of civil cases examined by courts consist of disputes arising from various legal relationships, which are classified by law under claim proceedings. Claim proceedings are a legally regulated process initiated by a claim, governed by civil procedural law, to examine and resolve disputes concerning subjective rights or legally protected interests arising from civil, family, labor, and other legal relationships (Alexy & Amaglobeli, 2005).

When studying claim proceedings, it is essential to clarify and understand the following key concepts: the claim itself, its elements, types of claims, the right to file a claim, the conditions for acquiring the right to file a claim, and the methods of defense available to the defendant against the claim. A claim serves as a means of protecting subjective rights in cases of their violation or the threat of violation, meaning it is a legal remedy when a material dispute arises.

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A claim is a procedural means of protecting the plaintiff's interests; it initiates claim proceedings, thereby submitting the dispute for judicial review. The conditions for filing a claim and the very possibility of initiating a case through claim proceedings are determined solely by procedural legal circumstances. Therefore, a claim is more accurately characterized as a category exclusively within civil procedural law (Inotsenko & Guzhov, 2014).

Concept of a Claim

The term "claim" (*iddia*) in Arabic means "request" or "demand." When using any legal concept, we often compare it with the meaning attributed to it (or its equivalent) in Roman law and by legislators of different countries. Although a claim is an international concept, most legal systems do not provide a precise definition of "claim." In fact, both Anglo-Saxon and European legal systems follow the fundamental principles of Roman civil procedure, such as the classification of claims and methods of their enforcement, with some modifications in content. However, the meaning of the concept of "claim" has evolved.

The Roman jurist Celsus defined a claim (*actio*) as the right to pursue in court what is due, the right to demand what is owed to you. In Roman law, there were eight different terms for "claim," the most common of which was *actio*. However, the Romans used *actio* in several different senses. It could refer not only to a specific legal demand but also to judicial proceedings and action in general. *Actio* often encompassed not just a single legal demand but "the entire right with all present and future claims," which today is expressed through three distinct legal concepts: civil law, civil procedural law, and judicial proceedings.

Other terms for claims in Roman law included:

1. an abstract civil demand aimed at a specific monetary sum or object (*condictio*);
2. a dispute or lawsuit (*dica, persecutio*);
3. a specific legal demand, such as *vindicatio* (claiming ownership).

Additionally, the verb "to sue" (i.e., "to file a claim") in Latin was formed by adding a suffix to a noun that denoted a specific type of claim (*ager, condiser, vindicare, etc.*).

In Roman law, a claim was understood in multiple ways: as a procedural tool that allowed for legal protection (*legis actiones*); as a substantive right exercised by the plaintiff in asserting a legal demand; as a demand made by the plaintiff against the defendant before a competent authority (the court), representing a unilateral action of the plaintiff against the defendant, and as the judicial proceedings concerning the dispute (Solovieva, Isaenkova, Tkacheva, & NIKOLAYCHENKO, 2023).

A claim holds a central place among civil procedural law institutions. In terms of its meaning and scope, litigation constitutes the most important part of the entire civil procedure and serves as the procedural form of administering justice in civil cases. The claim is closely interconnected with all institutions of civil procedural law, shaping the "spirit" of the entire process of adjudicating civil cases and playing a guiding role in the legal regulation of judicial activities.

As it can be seen, the existence of higher courts ensures the full realization of citizens' right to judicial protection. Thus, the received complaint or protest is considered within the time provided

by the law, thereby ensuring the quick and accurate implementation of justice. Proceedings in the higher courts are a constitutional guarantee of the right of citizens to appeal to the court again (Garibli & Ozturk, 2024).

A claim is an appeal to the court by the claimant (the presumed holder of subjective material rights) against the defendant (the presumed bearer of a subjective obligation) for the examination and resolution of a material-legal dispute, as well as for the protection of a violated subjective right or legally protected interest (Alexy & Amaglobeli, 2005).

A claim serves as a procedural tool for initiating judicial proceedings to resolve legal disputes between parties in a material-legal relationship through judicial process.

Thus, a claim is a procedural means of protecting the claimant's interests. It initiates claim proceedings, thereby bringing the dispute before the court.

There are several key perspectives on the concept of a claim:

A. Understanding a claim in both material-legal and procedural-legal terms

In material-legal terms, a claim represents the right to enforce one's demands. In Chapter 18 of the Civil Code of the Republic of Azerbaijan, the term "claim" is used to denote both "claim rights" and "claim periods." The Civil Code of the Republic of Azerbaijan defines a claim as the ability to enforce a subjective material right through judicial means. The period within which a claim can be filed to protect a violated right is called the limitation period.

Failure to comply with the limitation period results in the loss of the material claim right. As stated in Article 375, Clause 2 of the Civil Code of the Republic of Azerbaijan, if a party to the dispute submits a motion regarding the expiration of the limitation period, the court is obliged to dismiss the claim. Therefore, in material terms, a claim represents the most disputable enforceable subjective right.

In procedural-legal terms, a claim is a request submitted to a court of first instance for the protection of one's rights and interests. From this perspective, a claim serves as a means of initiating civil proceedings.

B. A unified approach to the concept of a claim

Some legal scholars view a claim as a unified concept encompassing both material-legal and procedural-legal aspects. The procedural-legal aspect of a claim refers to the claimant's request to the court for the protection of their rights. The material-legal aspect of a claim involves the demand for the protection of a material right or interest.

However, a claim is a concept and institution of procedural law; therefore, it cannot simultaneously function as both a material and procedural institution. Consequently, it is more appropriate to characterize a claim as the claimant's demand, directed at the defendant through a court of first instance, for the protection of their right or legally protected interest. A claim is a procedural tool for protecting the claimant's interests, initiating claim proceedings, and bringing the dispute to court. The conditions for filing a claim and the possibility of initiating proceedings in court through claim proceedings are determined by procedural law. Therefore, a claim is more accurately classified solely as a procedural law category (Krashennikov, 2020).

Elements of the Claim

A claim has an internal structure and consists of characteristic elements that allow for the individualization and classification of claims. The correct understanding of the content of the elements is not only of theoretical importance as the basis for the procedural classification of claims for different types, but it is also of great significance in determining the identity of the claims. Thus, the elements of a claim are individualized and allow one claim to be distinguished from another.

Some authors distinguish three elements (subject, basis, and content), while others separate two elements (subject and basis). In recent years, the parties to a claim are sometimes added to the existing two or three elements (Mokhov, 2017).

The subject of a claim refers to the specific demand the claimant has against the defendant, such as the recognition of copyright, reinstatement to a job, compensation for damages, the defendant's obligations, including administrative violations, certain actions to be performed, or actions to be refrained from, etc.

According to Article 149, Part 2, Paragraph 3 of the Civil Procedure Code of the Republic of Azerbaijan, the claimant must specify the subject of the claim in the claim application. The subject of the claim should not be confused with the material subject of the dispute (object), such as money, property, housing, etc. Correctly determining the subject of the claim determines the future enforcement of the court decision, because claims that are not properly formulated by the claimant may not allow for their enforcement in the future.

Different types of claims can be made regarding the material object of the dispute. For example, claims related to immovable property may be about recognizing ownership of a building, transfer, eviction, partition, demolition, etc. Therefore, the subject of the claim and the material subject (object) of the dispute are different concepts.

The basis of a claim refers to the factual circumstances that give rise to the claimant's right to demand. According to Article 149, Part 2, Paragraph 3 of the Civil Procedure Code of the Republic of Azerbaijan, the claimant must state the facts and circumstances they rely on as the basis for their claim, along with a list of evidence confirming these facts, in their claim application. The claimant must not only state the facts but also the legal facts, i.e., the circumstances related to the creation, modification, or termination of legal relationships. These facts must later be proven by the claimant in civil judicial proceedings.

The facts constituting the basis of the claim are divided into three groups: directly legal facts, active and passive legal facts, and facts that cause the claim. Typically, a subjective right is based not on a single legal fact but on their combination, meaning that the basis of the claim consists of a certain factual composition.

The basis of a claim is divided into factual and legal grounds. The factual basis of the claim is the set of legal facts, while the legal basis refers to the specific legal norms upon which the claimant's demand is based.

The content of the claim is the action requested from the court by the claimant in defense of the violated or disputed subjective right. The content of the claim is determined by the claimant, based on the defense methods provided by law.

The elements of a claim are the main criterion when determining the identity of claims, as the identity of claims is determined by the overlap of the subject of the claim, the factual basis, and the parties involved. If the parties, the subject of the claim, or the factual basis do not overlap, for example, if new legal facts are at the basis of the claim, it is not possible to speak of the identity of the claims, and the claimant has the right to file a new claim with the court.

In the doctrine, based on legislation and judicial practice, a number of classifications have been developed that allow the identification of the characteristics of different types of claims.

Types of Claims

Claims can be classified based on three main criteria:

- ***By the subject of the claim*** – procedural-legal classification of claims;
- ***By the object of defense*** – material-legal classification of claims;
- ***By the nature of the legally protected interests*** (Krashennikov, 2020).

In the procedural-legal classification of claims, recognition claims, enforcement claims, and modification claims are distinguished.

Recognition claims aim to protect the claimant's interests by claiming a specific subjective right that is disputed by another person (for example, a claim regarding the recognition of a right to a residence). Recognition claims are divided into two types: **positive** and **negative**. A **positive recognition claim** is when the claimant demands the recognition of a certain right, such as the recognition of ownership of a residence. A **negative recognition claim** is when the claimant denies the existence of a certain right, such as claiming that they do not have an obligation in relation to a disputed paternity registration. Thus, the general feature of recognition claims is that the claimant does not request the court to give them anything, but rather seeks recognition of their subjective right or the denial of its existence.

Enforcement claims are characterized by the claimant requesting the court to recognize a certain subjective right and compel the defendant to perform certain actions in accordance with that recognized right (such as handing over money, property, vacating a building or land, compensating for damages, etc.). As can be seen, enforcement claims are broader in legal characteristics, as the claimant requests both the recognition of a certain right and the performance of certain actions to enforce it. Often, recognition and enforcement claims can be combined in a single claim application. For example, a claim to declare a sale-purchase contract for a residence invalid and the removal of previous owners from the property.

The common feature of both enforcement and recognition claims is that both aim to confirm the existence of rights and obligations by the court, irrespective of whether they are before or during the proceedings. The decision does not alter the existing legal relationships after the court ruling, just as it does not alter the existing rights before the decision. Therefore, in civil procedural law theory, these two types of claims are referred to as "**declaratory**" (Blazhev, & Uksusova, 2015).

Modification claims refer to claims related to the suspension, modification, or, in some cases, the creation of material legal relationships. In this case, the court's decision acts as a legal fact of material law that changes the structure of legal relationships. For example, a claim regarding the partition of ownership turns joint property into fractional ownership. According to the law, the division of shares in a dispute is carried out based on a court decision. In this case, the court's decision serves as a legal fact in material law, thus completing the complex factual composition.

It should be noted that modern judicial activity is quite creative, as the court must determine many factual circumstances, particularly in cases where regulation is carried out with norms that involve relatively certain and uncertain assumptions. The court must clarify the factual composition and assign legal significance to certain facts. For example, it must interpret various evaluative concepts based on the evidence presented by the parties. In all such cases, the claim and the court decision have a modifying nature, and the court's decision serves as a legal fact in material law, objectifying the results of prior judicial activity.

Depending on the nature of the disputed *material-legal relationship*, claims arising from civil, labor, family, and other branches of law, such as civil, labor, family-marriage, land, financial, tax, customs, and other legal relationships, are distinguished. Then, each type of claim is further divided, for example, into claims arising from civil legal relationships, legal obligations, non-contractual liability, copyright, invention, inheritance rights, etc. Claims related to legal obligations are further divided into claims arising from contracts such as sale, donation, exchange, lease, custody, and so on. As can be seen, the material-legal classification of claims can be quite detailed and profound.

The practical significance of the material-legal classification of claims is as follows:

First, it forms the basis for court statistics, allowing for the monitoring of specific social processes based on the number of cases or the increase or decrease in their number in the courts;

Second, it serves as the basis for the generalization of judicial practice for different categories of civil cases, with decisions made by the Plenary Session of the Supreme Court;

Third, the material-legal classification of claims forms the basis for many scientific and practical research studies concerning the peculiarities of judicial review of cases in various categories (Krashennikov, 2020).

In recent years, legal literature has included a classification of claims based on the nature of the legally protected interests. This includes claims for the protection of individuals' rights, group claims, derivative (secondary) claims, claims related to personal interests, and claims related to the protection of public and state interests.

Conditions for the Right to File a Claim

Thus, the right to a claim is the right to judicial protection of a violated or disputed right in accordance with the procedure established by law. The right to a claim is exercised through the submission of a statement of claim to the court. Meanwhile, the right to file a claim is the right to seek judicial protection for subjective civil rights and legitimate interests that have been violated

or contested. Therefore, in order for a court to consider and resolve a legal dispute, a claim must be filed (Razdorozhny, 2017).

According to Article 4 of the Civil Procedure Code (Right to Apply to the Court for Defense), all natural and legal persons have the right to use court protection in accordance with the law to protect and ensure their legally protected rights, freedoms, and interests. Thus, the exercise of the right to seek judicial protection is possible in the form of a claim application, in the manner prescribed by law. The right to file a claim is, in this regard, a form of exercising the right to apply to the court. The right to file a claim is the right to initiate court proceedings and defend a specific material-legal dispute in the first instance court with the aim of resolving it. This is the right to judicial adjudication of a specific material-legal dispute (Blazhev & Uksusova, 2015).

In civil proceedings, judicial protection is ensured by the unrestricted right to file a claim (Article 4 of the Civil Procedure Code). The right to file a claim, in any case, involves the existence of certain minimum and easily identifiable conditions—the initial conditions for the right to file a claim.

The initial conditions for the right to file a claim are the situations that the law associates with the existence or non-existence of a specific person’s subjective right to file a claim in a particular case. If such initial conditions exist, that person has the right to seek judicial review of their material-legal demand. If any of these conditions are absent, then the right itself does not exist. In such cases, the claimant’s application will not lead to the judicial consideration of the dispute.

The initial conditions for the right to file a claim are distinguished as follows:

a. General and special conditions – depending on the circumstances in which they are applied;

b. Positive and negative conditions – depending on the existence or non-existence of conditions stipulated by law for filing a claim.

The general initial conditions for filing any claim are as follows:

1. The procedural legal capacity of the claimant and the defendant, meaning the ability to be a party in a civil case (Article 48 of the Civil Procedure Code);

2. The jurisdiction of the court over the dispute (Article 24 of the Civil Procedure Code). If the dispute is not within the jurisdiction of the court or civil procedural law, the judge must refuse to accept the claim application on the grounds of inadmissibility (Article 153, Part 2, Item 1 of the Civil Procedure Code); Claim preclusion prevents relitigation of a claim or cause of action that was litigated between the same parties in a previous action. Professor Trautman reported that the Washington State Supreme Court had used the same claim preclusion test for nearly seven decades. A judgment has claim preclusive effect only if the proponent can show that two successive proceedings are identical in “(1) subject matter, (2) cause of action, (3) persons and parties, and (4) the quality of the persons for or against whom the claim is made”. Judgments from courts, administrative agencies, and arbitrators can all be preclusive (Trautman, 1984).

3. There must be no legally binding judgment of the court on the same dispute between the same parties regarding the same subject and grounds, or no decision of the court terminating the

case due to the claimant's withdrawal from the claim or confirming the settlement agreement (Article 153, Part 2, Item 2 of the Civil Procedure Code);

4. The court must not have refused to issue an enforcement order for the mandatory execution of the judgment in a case involving the same parties, subject, and grounds, or have returned the case for reconsideration by the same court, except in cases where it is impossible for the case to be heard by that court (Article 153, Part 2, Item 3 of the Civil Procedure Code);

5. There must be no ongoing case regarding the same dispute between the same parties in another court (Article 153, Part 2, Item 4 of the Civil Procedure Code).

The first two conditions are positive, while the following conditions are negative in nature.

Thus, a claim is a demand made by a person seeking legal protection for their own or another's legally protected right or interest. As an institution of procedural law, a claim must be formally defined as a demand made by an interested party based on a disputed substantive legal relationship, seeking the protection of a legal interest or right—either their own or another's—that is subject to judicial review and resolution in accordance with the law. A claim should be understood as a demand, formalized in the form of a statement of claim, substantiated by reference to factual circumstances, and accepted by the court for proceedings. Through this demand, the plaintiff seeks state assistance in enforcing a right (or multiple interrelated rights) allegedly belonging to the party in whose interest the claim is filed, against one or more defendants (Matantseva, 2019).

Conclusion

The significance of claims in court is paramount, since they serve as the fundamental element that originates and guides the judicial process. The claim is the principal demand that initiates the legal conflict in court and propels the case into judicial procedures. The claimant seeks to assert their rights and interests by submitting a claim. The claim underpins the court's oversight of the matter and eventually its resolution. The court renders a judgment by evaluating the evidence, statutes, and legal doctrines submitted by the parties concerning the claim. The specifics of the claim dictate the decision type and applicable law.

Claims safeguard the rights and interests of both parties. By submitting a claim, the claimant asserts their rights, whilst the defendant seeks to demonstrate that the claim is baseless or that their stance is valid. The claim submitted to the court delineates the legal dimensions of the issue and appraises the court of the domain in which it must provide a ruling. The claim may pertain to property rights, necessitating the court to ascertain the existence of such rights.

Claims serve as a mechanism to request or compel the court to enforce legal commitments. The claimant may petition the court for redress of infringed rights, restitution of specific property, or other actions pertaining to property matters. Through a thorough assessment of the claim, the court establishes legal clarity and elucidates the legal dimensions of the prevailing issues. This is essential for governing legal interactions between the parties.

Claims in court are essential instruments for settling legal problems and are a prerequisite for the judicial process. They guarantee the safeguarding of rights and the appropriate enforcement of judicial rulings.

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Azərbaycan Dilinin İnkişafında Müasir Texnologiyaların Təsiri

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Xülasə

Məqalədə Azərbaycan dilinin inkişafında müasir texnologiyaların təsiri araşdırılır. Dilin inkişafı tarixən sosial, iqtisadi və mədəni amillərlə sıx bağlı olmuşdur. Müasir dövrdə isə texnologiyanın sürətli inkişafı dilin təkamülünə yeni imkanlar yaradır. Azərbaycan dili də bu prosesdən kənar qalmayaraq, texnoloji yeniliklərin təsiri ilə zənginləşir və genişlənir. Məqalədə dilin inkişafı üçün daxili (dil öz imkanları) və xarici (texnologiya, qloballaşma, digər dillərlə əlaqə) faktorların rolu vurğulanır.

Müasir texnologiyalar, xüsusilə avtomatik tərcümə sistemləri (Google Translate, DeepL kimi), süni intellekt və internet platformaları, Azərbaycan dilinin təbliği və öyrənilməsində mühüm rol oynayır. Bu texnologiyalar dilin lüğət tərkibinə yeni terminlər əlavə edir, təhsil və mədəniyyət sahələrində dilin istifadəsini genişləndirir. Eyni zamanda, sosial şəbəkələr və onlayn resurslar vasitəsilə Azərbaycan dili dünya miqyasında tanınır.

Lakin texnologiyanın mənfi təsirləri də mövcuddur. Xüsusilə gənc nəslin xarici dillərə meyli və Azərbaycan dilinin gündəlik istifadədə azalması dilin strukturunu zəiflədə bilər. Buna görə də, dilin zənginliyini qorumaq və düzgün istifadəni təmin etmək üçün fərdi və cəmiyyət səviyyəsində tədbirlər görülməlidir. Məqalədə dilin inkişafı üçün tədqiqatların davam etdirilməsi və texnoloji yeniliklərdən düzgün istifadə edilməsi tövsiyə olunur.

Məqsəd: Azərbaycan dilinin inkişafında müasir texnologiyaların müsbət və mənfi təsirlərini araşdırmaq, dilin qorunması və inkişafı üçün tədbirlər təklif etmək.

Metodlar: Dilçilik nəzəriyyələri, texnoloji yeniliklərin təhlili, sosial və mədəni amillərin araşdırılması.

Açar sözlər: *Azərbaycan dili, müasir texnologiyalar, dilin inkişafı, avtomatik tərcümə sistemləri, sosial şəbəkələr*

GİRİŞ

Dilin inkişafı hər bir dövrdə aktual olaraq qalmaqda olan problemlə məsələlərdən biridir. Dilin inkişafı müxtəlif səbəblərlə bağlı ola bilər. Buna görə də onu yalnız bir səbəblə bağlamaq düzgün olmazdı. Tarixən dilçilər dilin inkişafı, təkmilləşməsi və dəyişməsi qaydaları ilə bağlı tədqiqatlar aparmış bu məsələni diqqət mərkəzində saxlamışlar. Dilin inkişafı ilə bağlı dilçilər müxtəlif mülahizələr irəli sürsə də bu məsələnin tam olaraq dəqiq şərh edildiyini qeyd etmək olmaz. Dilin inkişafı deyilən zaman onda olan səslərin, sözlərin, söz birləşmələrinin, şəkilçilərin və qrammatik əlaqələrin müntəzəm olaraq dəyişməsi və zənginləşməsi nəzərdə tutulur. Dilin inkişaf etməsi, onun zəngin tarixə malik olması həmin dövrdə baş verən sosial, iqtisadi və mədəni əlaqələrin nə qədər təsiredici olmasından irəli gəlir. Dilin inkişafı onun gələcək nəsillərə ötürülməsi, qorunub

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saxlanması, öz zənginliyini itirməməsi üçün daim yeniliklər axtarışına çıxması deməkdir. Bu inkişafın davam etməsi üçün insanlar bir-biri ilə ünsiyyət qurmalı, düşüncələrini daim ifadə etməli və onun irəli getməsi üçün yeniliklər ortaya qoymalıdır. XX əsrin əvvəllərində dilçilik ədəbiyyatşünaslıq, fəlsəfə, məntiq, psixologiya və tarixlə konkret əlaqədə idisə, indi bu əlaqələrin əhatə dairəsinə onlarca yeni elm daxil olmuşdur. Müasir dövrdə elmlərarası qarşılıqlı təsir prosesinin belə sürətlə getməsinin mahiyyəti bir çox məsələlərlə bağlıdır. Bəzilərinin qeyd etdikləri kimi, bu proses ilk növbədə hazırkı dövrün elmə olan yüksək ictimai tələbi ilə əlaqədardır. Azərbaycan dili də son illərdə texnologiyanın, elmin və cəmiyyətin dəyişən tələblərinin təsiri ilə sürətlə inkişaf edib. Müasir dövrdə Azərbaycan dilinin strukturunu və funksiyalarını öyrənməklə yanaşı, həm də sosial, psixoloji və texnoloji məsələlərlə bağlı yeni problemləri də öyrənməyə çalışılır ki, bu məqalədə müasir texnologiyaların, qlobal təsirlərin və xarici dillərin Azərbaycan dilinin inkişafına necə təsir etdiyini, onun müsbət və mənfi təsirlərinin nədən ibarət olduğunu müzakirə edəcəyik.

Azərbaycan dili müəyyən inkişaf prosesi keçmiş, mədəni və zəngin tarixi ilə özünəməxsus xüsusiyyətlərə malikdir. Hər bir dil təbii olaraq inkişaf edir, dəyişir və müxtəlif xarici təsirlər nəticəsində yeni mərhələlərə qədəm qoyur. *Dilin inkişafı nə deməkdir? Dilin inkişafı dilin tərkib hissəsini təşkil edən səslərin, sözlərin, söz birləşmələrinin, şəkilçilərin və qrammatik əlaqələrin, onun müxtəlif komponentlərinə məxsus ünsürlərin müntəzəm olaraq dəyişməsi və zənginləşməsidir. Dilçilik elmində “dilin inkişafı” termini də məhz bu anlayışı ifadə edir (1).*

Dilin inkişafı barəsində Azərbaycanın bir çox dilçi alimləri öz fikirlərini irəli sürmüşdür ki, bunlardan Ə.Dəmirçizadəni, A.Qurbanovu, A.Axundovu və.s başqalarını göstərmək olar. Onlar dilçilik ilə bağlı dərslərlərində dilçiliyin tarixindən, nəzəriyyə, metod və inkişafından geniş şəkildə danışıblar. Görkəmli dilçi-alim A.Qurbanov dilin inkişafı problemindən bəhs edərkən onun müəyyən faktorlarla bağlı olduğunu qeyd etmişdir. O, bu faktorların daxili, və xarici faktorlar olduğunu bildirmişdir. Daxili faktorlar dilin öz imkanlarından istifadə etmə hadisəsidir. Xarici faktorlar cəmiyyətin ictimai quruluşu, ideologiyası, xalqların əlaqəsi, əhalinin etnik tərkibi, bədii ədəbiyyat, elm, sənaye, texnika və təfəkkür fəaliyyətinin inkişafı ilə bağlıdır. *“İnsan şüurunda, onun təfəkkürünün müxtəlif sahələrində baş verən hər bir dəyişiklik dildə də öz lüğəvi və qrammatik əksini tapır. Dilin inkişafında xüsusi rol oynayan xarici faktorlardan biri dillərin əlaqəsi, kontaktıdır. Bu faktor xalqlar arasında iqtisadi, siyasi, mədəni və digər əlaqələr əsasında meydana çıxır. Dünyada elə bir dilə rast gəlinməz ki, o, ancaq öz daxili vasitələrindən ibarət olsun. Bu faktorun əsasında dünya dillərində dil əlaqəsi ənənəsi yaranmışdır. Bu ənənə bütün dünya dillərində mövcuddur” (1, s. 427).*

Dövlətlərin bir-biri ilə əlaqələrinin güclənməsi, ölkə həyatında baş verən dəyişikliklər, sürətli olaraq elmin, texnologiyanın inkişafı, qloballaşmanın və kommunikasiya vasitələrinin dəyişməsi dilin bütün sahələrdə roluna böyük təsir göstərir. Azərbaycan dilinin inkişaf perspektivləri bir çox amillərlə bağlıdır. Dilin müasir dövrün tələblərinə uyğunlaşması və qorunub saxlanması üçün bir çox addımlar atılmalıdır. Müasir dövrdə texnologiyanın inkişaf etməsi elə bir elm sahəsi yoxdur ki, ona təsir göstərməsin. Texnologiyanın dilə təsiri nəticəsində bir çox aktual problem əsaslı

şəkildə həll olumağa başlamışdır. Müasir texnologiyalar dilin inkişafına, onun formalaşmasına və yeniliklərin meydana çıxmasında əhəmiyyətli dərəcədə rol oynayır. Artıq dövr etibarlı ilə texnologiya sahəsində baş verən dəyişikliklər bir çox elm sahəsinə təsir etdiyi kimi dilçiliyə də öz təsirini göstərir. Müasir Texnologiya vasitələri ilə tərcümələrin aparılması, sözlərin, söz birləşmələrinin mətnlərin avtomatik tərcümə sistemləri vasitəsilə həyata keçirilməsi burada baş verən dəyişiklikləri göz önünə çıxarır. Bu texnologiyalardan istifadə etməklə tərcümələrin daha asanlıqla həyata keçirilməsinə və dilin müxtəlif sahələrdə istifadəsinin genişlənməsinə imkan yaranır. Hazırda dünyanın bir çox ölkəsində bu texnologiyalardan əlverişli şəkildə istifadə olunur. Sözlərin, söz birləşmələrinin və mətnlərin avtomatik qaydada tərcüməsində istifadə geniş şəkildə yayıldığından bu sahəyə maraq artdığından, bir çox tərcümə proqramları istifadəyə verilmişdir. Buna misal olaraq hazırda avtomatik tərcümə proqramlarından (Google translate, **Microsoft Translator**, **DeepL Translator**, **Yandex Translate**) **göstərmək olar. Bu** avtomatik tərcümə proqramları çoxsaylı dilləri dəstəkləyir və mətn, səs, şəkil kimi müxtəlif formatlarda tərcümə edir. Azərbaycan dilində də bu proqramlardan geniş və effektiv şəkildə istifadə olunur. Elm inkişafı sürətləndikcə bu özünü qarşılıqlı olaraq digər sahələrdə də göstərir. Hazırda dünyada bu sahədə daha da inkişaf edən və etməkdə olan süni intellekt proqramları da var. Bu proqramlar dildə də öz əksini taparaq doğru və düzgün istifadə zamanı faydalı olur. Azərbaycanın elm və təhsil sahələrində, eləcə də mədəni həyatında baş verən dəyişikliklər dilin inkişafına təsir edir yeni dil qaynaqlarının yaranmasına gətirib çıxarır. Buna misal olaraq internetin geniş yayılmasını göstərmək olara ki, bu da Azərbaycan dilinin bir çox insan tərəfindən öyrənilməsinə və istifadəsinə şərait yaradır. İnternetin də dilin inkişafında rolunun böyük olmasını belə əlaqələndirmək olar ki, müəlif dillərdə dil resuslarının, sözlüklərin, qrammatika kitablarının və dil kurslarının internetdə yerləşdirilməsi bu sahənin inkişafına onun irəliləməsinə gətirib çıxarır. İnternetdə Azərbaycan dilində onlayn resusların yaradılması, müasir texnologiyalar sahəsində platformaların hazırlanması, sosial şəbəkələr vasitəsi ilə Azərbaycan dilinin müxtəlif formalarda təbliğinə və inkişafına şərait yaradır. Sosial media vasitəsilə insanlar video konfranslara qoşulur, Azərbaycan dilində geniş müzakirələr aparır, yazılar və videolar paylaşılır ki, bu da onun gündəlik istifadə dairəsini genişləndirir. Texnologiyalar Azərbaycan dilinin qorunaraq düzgün istifadəsinə və inkişafına da müsbət təsir göstərir. Bu texnologiyalardan istifadə Azərbaycan dilinin düzgün yazılış qaydalarına köməklik edir və onun köməyi ilə Azərbaycan dilində olan köhnəlmiş söz və ifadələr qorunaraq saxlanılır. Bunu öz növbəsində dilin mövcudluğuna və inkişafına təsir edən amil kimi göstərmək olar. Texnologiyanın inkişafı Azərbaycan dilinin lüğət tərkibinə yeni anlayışlar və terminlərin formalaşmasına da mühüm töhvə verir. Azərbaycan dilinin lüğət tərkibinə internet və şəbəkə, proqramlaşdırma və texniki və yeni cihaz və tətbiq terminləri daxil olur. Bu terminlərin lüğət tərkibinə bəzən uyğunlaşdırılır, bəzən də olduğu kimi qəbul edilir (7).

Müasir texnologiyanın təhsil sisteminə təsir göstərdiyini, Azərbaycan dilinin tədrisi zamanı müxtəlif interaktiv tətbiqlərin və onlayn dərs vəsaitlərinin əlçatanlığını qeyd etmək lazımdır. Eyni zamanda texnologiyanın köməyi ilə ədəbiyyat, jurnalistika və incəsənət kimi müxtəlif sahələrdə dilin yaradıcı şəkildə istifadəsi ortaya çıxır. Azərbaycan dilinin dünyada tanınmasında, istifadə edilməsində, film, musiqi, televiziya və digər kütləvi mədəniyyət sahələrində texnologiya mühüm

rol oynayır. Bu sahədə görülən işlər vasitəsi ilə Azərbaycan dilindəki məzmunlar dünya miqyasında geniş auditoriyaya çatdırılır (6).

Azərbaycan dilinin inkişafında texnologiyanın inkişafını müsbət təsiri ilə yanaşı mənfi təsirlərinin də mövcud olduğunu qeyd etməliyik. İnsanların texnologiya marağının günü-gündən artdığı bu dövrdə xüsusən də gənc nəslin internet və sosial şəbəkə platformalarından müntəzəm olaraq istifadəsi dildə bir çox problemin yaranmasına gətirib çıxarır. İnsanların global dünyada baş verən dəyişikliklər nəticəsində dünya dillərinə marağının artması xarici dil istifadəçilərinin genişlənməsinə gətirib çıxarır. Bu da öz növbəsində Azərbaycan dilinin gündəlik həyatda az istifadə olunmasına, dilin üslub xüsusiyyətlərinin qorunub saxlanmaması kimi problemlərin yaranmasına və Azərbaycan dilinin strukturunun və formasının zəifləməsinə, dildə olan sözlərin unudulmasına səbəb ola bilər.

NƏTİCƏ

Dilin inkişafı hər zaman təbii bir proses olaraq, həm müsbət, həm də mənfi təsirlərdən keçərək formalaşmışdır. Müasir texnologiyalar, qlobal əlaqələr və sosial dəyişikliklər dilin inkişafını həm gücləndirə bilər, həm də ona zərər verə bilər. Dilin zənginliyini qorumaq və düzgün istifadəni təmin etmək üçün həm fərdi, həm də cəmiyyət səviyyəsində tədbirlər görülməlidir. Azərbaycan dilinin inkişafı üçün daim tədqiqatlar aparmalı və bu dilin geniş bir kütləyə çatması üçün texnoloji yeniliklərdən düzgün istifadə etmək lazımdır.

The Impact of Modern Technologies on the Development of the Azerbaijani Language

Elburus Veliyev

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Abstract:

The essay examines the influence of contemporary technologies on the evolution of the Azerbaijani language. The evolution of language has always been intricately linked to social, economic, and cultural influences. The swift progression of technology in contemporary times generates novel prospects for linguistic change. The Azerbaijani language is similarly enhanced and broadened by technical developments. The essay emphasizes the significance of internal (the inherent capabilities of the language) and external (technology, globalization, connection with other languages) aspects in language development.

Contemporary technology, notably automated translation systems (such as Google Translate and DeepL), artificial intelligence, and online platforms, significantly contribute to the promotion and instruction of the Azerbaijani language. These technologies introduce new terminology to the language's lexicon and enhance its application in education and culture. Simultaneously, social networks and online platforms facilitate the global recognition of the Azerbaijani language.

Nonetheless, technology also has adverse effects. The younger generation's propensity for foreign languages and the diminished daily utilization of Azerbaijani may undermine the language's structure. Consequently, both personal and communal actions are necessary to safeguard the language's richness and guarantee its appropriate utilization. The paper advocates for the ongoing investigation of language development and the appropriate application of technical advancements.

Objective: To analyze the beneficial and detrimental effects of contemporary technologies on the evolution of the Azerbaijani language and to recommend strategies for its preservation and advancement.

Keywords: Azerbaijani language, modern technologies, language development, automated translation systems, social networks.

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Knowledge Management Approach to Data Mining Process in Smart Business

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Abstract:

The aim of this study is to examine new technologies in the field of information technology and the impact of these technologies on the field of learning, especially e-learning. Advances in information and communication technology have affected various dimensions of human life in recent years.

With the expansion of information technology and the penetration of remote communication tools, learning tools and methods have also undergone changes; As individuals can learn by using the available resources. Therefore, the development of e-learning courses has grown rapidly and expanded, and while improving the quality of education, it has become one of the most popular educational methods.

This article discusses the development and advancement of new technologies such as cloud computing, the Internet of Things, big data, responsive design, and wearable technology, and their irreplaceable role in e-learning. In addition, the challenges facing the field of e-learning are also examined.

Key words: E-Learning, Big Data, Responsive Design, Information Technology, Cloud Computing, Overlay Technology

Introduction

In the present era, known as the age of knowledge and information, organizations are forced to manage their knowledge, knowledge assets, and workforce in order to gain competitive advantage. (Manoorian et al., 2011; Drucker, 2001 and Uziene, 2010). The computer world has become a huge wave of data. Data mining tasks were used to deal with this problem to extract interesting knowledge (Chemchem and Dries, 2015).

Therefore, data mining is the process of examining and extracting from data to understand unknown relationships between data, so that the extracted relationships are valuable to the data (user). (Hand, 1998). Data mining has been recognized and established as a scientific field. (Fayyad et al., 1996; Wang, 2005; Chen and Liu, 2005)

However, most studies in this field are related to providing rule-based algorithms to explain as much data as possible, and on the other hand, the number of articles explaining how to use these discovered rules is

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very limited (Wu et al., 2000). Although data mining has been recognized as a potentially very powerful tool, in fact, the application benefits of data mining for intelligent commerce have not been fully recognized. (Wang and Zu, 2007).

Commerce Intelligence is a broad category of tools and technologies for collecting, accessing, and analyzing large amounts of data in an organization, which ultimately leads to effective and accurate decision-making in the organization (Cook, & Cook, 2000; Williams and Williams, 2006). A prominent example of intelligent business technologies is business process modeling, data feature definition, data storage, and up-to-date analytical processing of data and data mining. (Loshin, 2003).

The core of intelligent business is to fully utilize the abundant volume of data so that the organization can achieve a series of competitive advantages in this way. Therefore, intelligent business is the boundary of customers (Liao et al.2010). Knowledge management is a prerequisite for e-commerce and its increasing customer focus. Companies can enter e-commerce globally through the Internet and intranet (Hajiheidari and Hashmi, 2013). There are different approaches to the concept of knowledge (Calvo-Mora et al., 2015; because it is a complex, broad and abstract term. (Alavi and Leidner, 2001).

On the other hand, Knowledge management is a set of practices for creating, developing, and applying knowledge to improve organizational performance (Wu et al., 2007; Smoliar, 2007; Lee and Chang, 2007; Feng and Chen, 2007; Buckman, 2004; Paiva and Goncalo, 2008). Like knowledge management, smart also improves the use of information and knowledge available to the organization (Sun and Chen, 2008).

However, knowledge management differs from smart business in many aspects. In general, knowledge management is related to human mental knowledge rather than to objective (real) data and information. Most models used in knowledge management are not technologically oriented.

Although Knowledge management is not a separate stylistic set of rules, but is entirely related to unstructured information and tacit knowledge, which smart business cannot apply in this field. Knowledge management is a very difficult task in the contemporary world. This is because it poses challenges to proper management and has been recognized as one of the most difficult management problems today. (Laudon and Laudon, 2002, Ogiela, 2013).

Therefore, knowledge management is an inseparable part of customer relationship management and e-commerce. (Liao et al., 2010). E-commerce strategy supports organizational strategy, as it influences and is influenced by it. (Hanafizadeh et al., 2010).

The main issue in today's competitive world is how to identify the knowledge existing in each organization and how to best utilize it. Following this issue, knowledge management has emerged as a distinctive field in modern management science with its own concepts, language, and practices. (Chen and Macredie, 2005). However, it is necessary for knowledge management to be based on changes in the organization's environment. (Afrazeh et al., 2010).

2. The Relationship of Data Mining with Smart Business and Knowledge Management

One of the mechanisms that can lead to the successful formulation of an e-business strategy is knowledge management (Khaloui et al., 2014). Most companies and thinkers emphasize the importance of knowledge as a source of competitive advantage in today's world (Rowley, 2002). Data mining, with its ability to extract knowledge, is recognized as a powerful tool (Chen and Liu, 2005).

Consequently, the data mining process is a knowledge management process because it involves human knowledge. This view of data mining naturally links intelligent business to knowledge management. There

is still disagreement about whether knowledge management should be a subset of intelligent business or vice versa, but ultimately the perspectives of intelligent business and knowledge management are different.

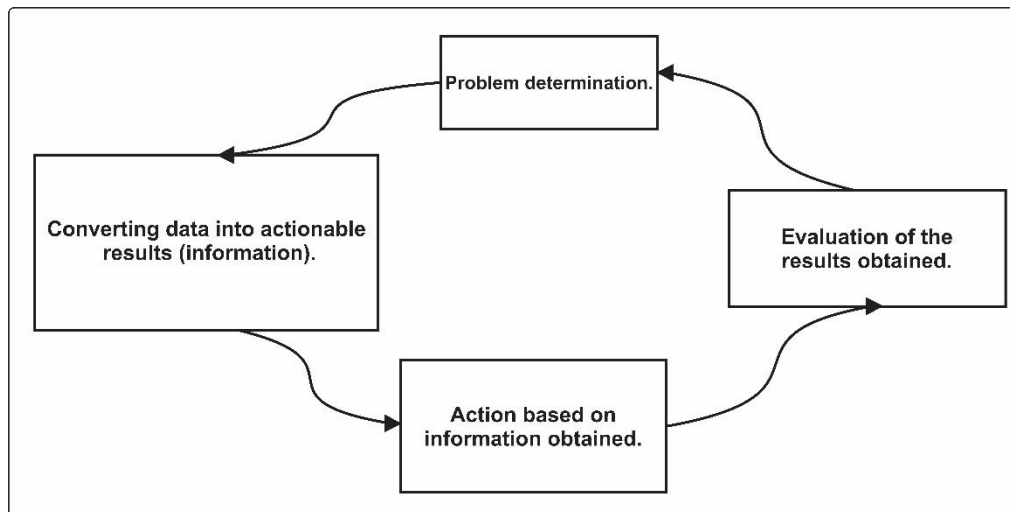
Although both debates Knowledge management and smart business are strongly influenced by research approaches and the groups involved in them, the method of creating coherence between knowledge management and smart business seems not to be unique to an individual. Several conceptual models have been presented in the field of creating coherence between smart business and knowledge management, but despite these conceptual frameworks, it is necessary to explain and explain these models in more detail for practical application. On the other hand, a few quantitative reports can be found on the implementation of the knowledge sharing process for the data mining process.

3. Data Mining Cycle Models

The data mining expert cycle model is one of the most widely developed models in the field of data mining. According to this model (Figure 1), data mining is a business process that includes 4 stages: defining the business problem, transforming data into actionable results, acting on the information, and measuring the results. The main limitation of this model is the limited applicability of this model in practice from two perspectives: First, people often assume that the knowledge gained from data mining does not always lead to the same result and action in all cases and situations, especially when Some of the knowledge acquired is hardly actionable.

In fact, this model emphasizes the role of data mining in the action phase, and this in turn leads to a failure to recognize the role of internal business components (the employees who perform this role) in developing relevant knowledge to coordinate actions for the business.

Second, this model combines non-sequential processes into a cyclical model, and as a result, the importance of the different roles of different people who are active in the data mining debate are not considered for smart trading.



Source from Berry and Linoff (2000)

Diagram. Traditional cyclical data mining model

4 Two-Wheel Model of Data Mining Cycle

The roles of the specialized personnel involved in data mining are usually divided into two groups: internal business components and data miners. An internal business component is a CEO or a mid-level manager who has sufficient skills and knowledge in problem-solving and decision-making methods. The person who plays this role (male or female) should understand the concept of data mining, intelligent business, and knowledge management in the organization, although this person may not be fully familiar with the details of data mining techniques and methods.

The goal of defining the role of the internal business component is to improve the performance of the organization by guiding and developing data mining. On the other hand, the person who plays the role of data miner is an expert in the field of data mining and implements data mining techniques in the organization. Fully understands.

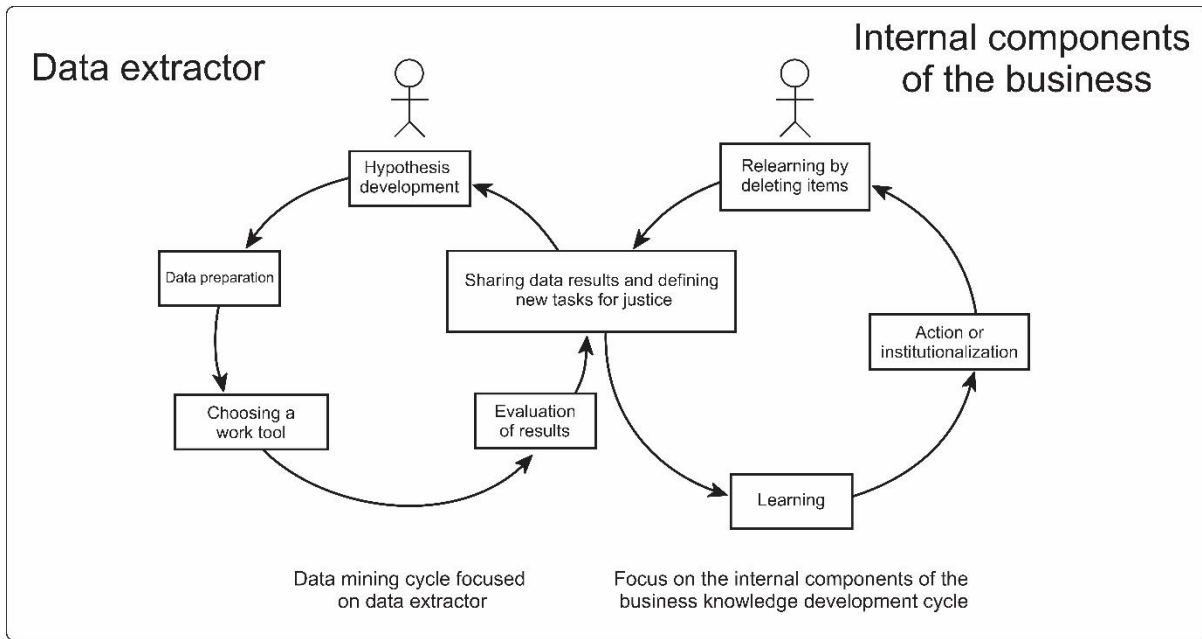
This person should understand the concept of business and be able to explain the results of data mining in the context of the business in question, but is not directly responsible for business actions. As a result, creating collaboration between the two groups of people who play these two roles leads to a real and practical connection between data mining and intelligent business.(Lu, & Hsiao,2007)

The process of two-way communication between internal business components and data miners is actually a process of knowledge sharing. The content of the entire two-way communication process (not just the data mining results) is part of organizational knowledge and includes the following:

- Standardization of data mining terminology and concepts.
- Problem definitions.
- Data mining documents.
- Data mining sources and references.
- Actions and results obtained.

To summarize the complex two-way communication between data mining personnel, the relationship between data miners and internal business components and the best aspects of data mining applications are examined using a two-cycle model.

As shown in Figure (2), one of the cycles of this model is related to the data mining development cycle and the next cycle is the personal knowledge development cycle. The two-way communication between these two cycles is defined as planning and knowledge sharing.



Source from Wang and Wu, (2008)

Figure 2. Two-wheeled data mining model

In the data mining-centric data mining cycle, there are 5 stages: establishing relationships and planning, developing hypotheses, preparing data, selecting tools (data mining), and evaluating the results obtained (data mining). A complete explanation of these stages can be found in the literature on data mining. Here, the focus is more on the hypothesis development stage.

In the usual case, data mining is the science of using the desired patterns in data to identify hypotheses or theories for Data mining provides. A hypothesis exposes existing knowledge (or original knowledge) for data mining. A data mining algorithm is designed to identify a specific type of hypothesis. As an example of the classification of data mining algorithms, the types of hypotheses derived for data mining and examples of actual knowledge are summarized in Table (1). (Wang and and Wu., 2008). Theories related to business processes often refer to the process Knowledge sharing depends on internal business components and data miners.

There are four stages in the centralized knowledge development cycle, excluding internal business components:

- Planning and knowledge sharing, in this stage, people playing internal business component roles understand the previous data mining results and help the data miners set new data mining tasks and objectives. The new data mining tasks and objectives become the basis for the data miners to develop specific hypotheses for the next data mining process.
- Learning; Learning is essential for people playing the role of an internal business component to effectively implement data mining results. The learning process results in how data mining results are useful for the business process. Internal business components must fully understand the precise meaning of the information packages obtained from data mining in order to implement business actions.
- Action or Institutionalization The ultimate goal of data mining is to support actions taken by internal business units. An action can be a decision-making activity or a sequential operation. In many cases, the

information obtained by the data mining process is not sufficient to take a correct and fundamental action. In this case, internal business units may be able to increase their tacit knowledge through institutionalization based on the results of data mining.

- Accepting or not learning, if the data mining process results in an action, the internal business units should observe the outputs of the action after the data mining results are applied. The observations obtained confirm the learning and understanding of the data mining results. In fact, if any action is taken, the internal business units develop more and more new data mining tasks and, with the help of data miners, set new goals for the data mining cycle. Unlearning processes are also necessary in some cases. Unlearning allows the incorrect information that is obtained from the data mining process to be forgotten in some cases.

Table 1. Data mining algorithms and theories

Types of Data Mining Algorithms Types of Theory for Data Mining Examples of Original Knowledge

Classification*	An observation with a certain set of characteristics can be assigned to a class.	A company with certain characteristics is more likely to fail (Characteristics of Failed Companies)
Cluster analysis**	There are distinct and clear sections between the observations.	Specific consumers from the market segment
Connection rules***	There is a conditional (condition-outcome) relationship between pairs of values and attributes.	If a consumer buys product A, she is more likely to buy product B.
Regression****	There is a function that can describe the relationship between features and observations.	Product sales are declining.
Sequential analysis (time-based) *****	There is a specific pattern of time-dependent events.	An online shopper often searches for related websites.
Standard Deviation Analysis*****	Among a set of observations, there is an unusual observation. A competitor takes unusual action.	

Source: Research results.

5. Weblog System for Knowledge Sharing Based on the Two-Wheel Model

Currently, weblogs have become powerful and well-known tools for the development of social networks, electronic collaborations, and learning (Liao et al., 2010). To facilitate knowledge sharing through weblogs, an appropriate overall structure of topics and concepts should be used in weblogs. Collecting the right data is the basis of data mining. (Wang et al. 2015). In this case, the following topics are presented for the structure of a knowledge sharing model for data mining.

5.1 Task

A data mining process is a task 2 to discover desired patterns from data for the data miner. The task is formally described as a hierarchical structure of subset tasks. For example, the marketing data mining task is to determine a new segmentation of consumers. This task can consist of the following two parts: - Determining the division of old consumer segments - Identifying new consumer segments.

5.2 Data

Data is the primary resource in data mining. The definitions of data characteristics and the proportion of the organizational data repository that is given to a specific data mining process are specified in this section of the design and blogs.

5.3 Data Mining Tools

A tool that can be used by a data mining to retrieve data, test theories, and extract results is called a data mining tool. A data mining tool can be a statistical method, a data mining algorithm, an artificial intelligence model (e.g. neural networks), or an undefined model (e.g. search engine and logical reasoning). A complex data mining tool can be a set of constructed methods that are formulated by defining a sequence of data operations.

5.4 Hypothesis

Hypotheses or theories are powerful tools for conceptualizing real-world knowledge. is derived for data mining. The goal of a data mining task is to specify the theories that are held in the mind of the data miner. For example, a general assumption of a dependency rule such as; If a customer buys product A, then he will also buy product B is a theory. Deep data mining is considered to require intelligent theories to perform a data mining task.

5.5 Data Mining Output

A data mining output is the output of the process Data mining that tests a hypothesis based on the data provided. [A data mining output therefore summarizes the hypotheses, data, and tools used in the process, the results obtained from the process, and the key points of the data mining.

5.6 Action

An action is a business decision and the implementation of that decision in response to a data mining result. An action has a leader who is responsible for the action and includes a team of participants and a specific timeframe.

5.7 Action Output

An action must have an associated output. Action output is the evaluation of a business decision and its implementation based on observable and unobservable costs and benefits. The criteria and tools for measuring costs and benefits should be defined at the same organizational level.

5.8 Institutionalization

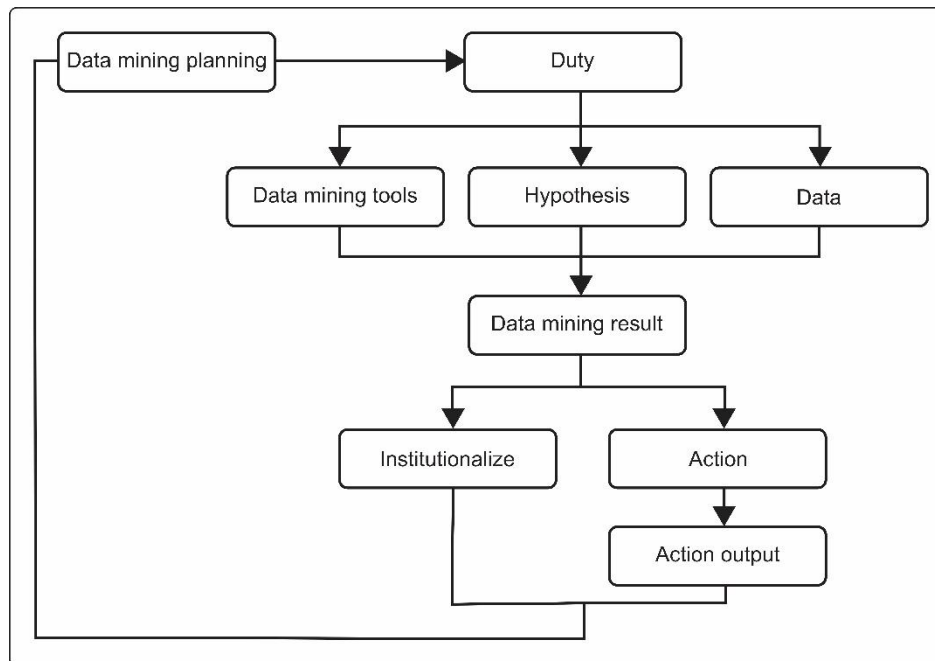
The result of data mining may not result in an action, but it can be learned by people (playing roles within the business) or it can lead to an increase in tacit knowledge about the desired data pattern. Institutionalization is the process of converting the result of data mining into tacit knowledge. Open, unformatted discussions on blogs that are relevant to a specific data mining task result from the process of

institutionalization. Institutionalization may not be directly applicable to a specific data mining task, but it can be useful for sharing knowledge within the organization.

5.9 Data Mining Planning

Data mining planning is a collaborative process for developing new data mining tasks. Using this section and blogs, internal business units and data miners organize a series of new tasks. The goals of a new data mining task are to serve as a foundation for data miners so that they can develop specific theories for the subsequent data mining process.

In practice, when weblogs are organized to share knowledge for data mining, each weblog has a title named after the data mining task. There is also a temporary data mining task template that may be considered by the weblog system administrator so that data mining planning weblogs can be linked to the subsequent data mining task. The relationship structure between the 9-fold classification of topics and blogs of knowledge sharing systems for data mining is shown in Figure (3).



Source: Wang and Wu, 2008.

Figure 3. Topics and structure of blogs from the knowledge sharing system for data mining

6. A case study example

The knowledge sharing model has been presented as a model of the relationship between smart commerce and knowledge management, which complements the smart commerce curriculum. MBA students in the Smart Business course used blogs (Google Blogger, 2008).

To experiment with knowledge sharing for data mining. In this study, the instructor acts as a data miner and communicates with students, who act as internal business components, through blogs. This data mining case is based on a well-known supermarket data mining scenario, in which customers who buy barley water are likely to at the same time, the old ones are also buying.

This topic seems interesting because it seems that there is no such buying pattern. It seems that these potential customers are not a representative sample of the customer community. This topic is used as an example in this study to show how data mining can help businesses to seize new opportunities through knowledge sharing, although unimaginable realities can be permanent or fleeting. In the case of the example given, centralized data mining is almost explicitly shown in the stages of the data mining cycle. The teacher has shared blogs on the following topics related to a data mining construction process:

- The task of this data mining process is to find an unusual buying pattern of consumers.
- The data used in this case study is related to the recorded data of customers' purchases in the past 6 months.
- The hypothesis of this study is a case of a dependency rule hypothesis. More specifically, a customer who buys product A is more likely to buy product B, if products A and B are not normally related to each other.
- The data mining tool used in this study is reports from the SQL database.
- The data mining results show that 36 percent of customers also buy old-fashioned baby food when buying milk and 95 percent of these customers use multi-purpose credit cards from large supermarkets.
- As a result, this scenario basically aims to show the importance of powerful data mining, and the issue of how valuable knowledge can be extracted from data to business associations.

In this scenario, the role of internal business components in a supermarket is not discussed much. In this case study, students were tasked with evaluating the centralized development cycle of internal business execution to the extent possible and publishing blogs to share knowledge. Students learned new things about data mining through the professor's blog and presented several actionable steps that internal departments of the store can take:

- Placing barley and old-fashioned wheat next to each other so that customers can easily access these products.
- Separating barley and old-fashioned wheat from each other with a large distance so that customers can see more products while shopping.
- Determining and replenishing the availability of Ma'al-Sha'ir and old baby milk simultaneously.
- Printing and sending Ma'al-Sha'ir and old baby milk bills together to customers.
- New pricing of Ma'al-Sha'ir and old baby milk by briefly reducing the price of one of these two goods and increasing the price of the other to achieve greater profit.

Most of the internal components of the business (students) decided to increase the price of barley water and reduce the price of old baby food, expecting to make more profit. After two weeks of testing, a data mining result was sent that the sales of barley water were decreasing and the sales of old baby food were increasing, but the total profit from the sale of these two goods was significantly lower than before.(ALhawamdeh,2007)

The internal components of the business after studying the textbook They presented a new solution to data mining tasks. They found that the programming part of data mining, although problematic, was very attractive to them. The web system includes general knowledge of data mining, data mining objectives, data, data mining tools, and various types of assumptions.

In this system, internal business components are allowed to communicate with the web system to introduce new actions, share the output of the actions with everyone, and gain tacit knowledge. Develop the results within the organization. Our experience in this area has been that built-in systems and blogs for sharing knowledge to make sense of data mining for smart business are very useful.

7 Conclusion

Most data mining research has focused on data mining techniques and algorithms, and there is limited research on how to use data mining to make it more relevant to business. For data mining to be a real tool for knowledge extraction in smart business, it needs to be integrated with the knowledge management discourse in the organization to develop and improve knowledge.

Knowledge management processes are not only used for knowledge collection methods, but also for its processing and use for the purpose of improving organizational operational processes (Ogiela, 2015). In this article, a model of knowledge development through data mining is presented. This model adds a focused, deterministic cycle of knowledge development of internal business components to the traditional accepted cycles of data mining.

Developing collaboration between knowledge management personnel can make data mining more and more realistically related to smart commerce. This paper also presents a knowledge sharing web system that facilitates collaboration between knowledge miners and internal business components. This paper also illustrates the usefulness of this system for data mining in a dynamic mode of tacit and explicit knowledge transfer for knowledge management using a case study example.

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Modern Management Process in the Global E-Commerce Arena

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Abstract:

Globalization is a phenomenon that has caused many changes and developments in various economic, social, cultural and political fields in the international arena in the present era and has challenged many countries.

One of the most important consequences of globalization is the increase in competition in the international economy. Because in these conditions, we will always face the reduction of transportation costs, the amazing growth of information technology and the increasing expansion of e-commerce and the minimization of geographical restrictions and the growth of competition, which will increase the efficiency of the international economy.

In the meantime, it can be said that the most important consequence of globalization on the economies of countries is the growth of e-commerce. The elements of which are the electronic market, electronic data exchange and Internet commerce, which demonstrate the close relationship between information and communication technology with market processes and management.

Therefore, to remain in the arena of economic competition, managers must provide and launch various information and communication tools with a clear vision and according to the needs of the organization. Ultimately, what is important for managers in terms of e-commerce is creating a favorable platform for the development of information and communication technology in the organizational structure, along with sufficient knowledge and positive attitude of managers to the necessity of the presence of this phenomenon in the process of organization activities.

Globalization is a phenomenon that has caused many changes and developments in various economic, social, cultural and political fields in the international arena and has challenged many countries. So undoubtedly the most important and obvious difference between today's economy and yesterday is globalization. Globalization is prescribed for the world's economic diseases, and it is claimed that the free flow of capital, labor, goods and information without government intervention and other forms of intervention is the only way to achieve global prosperity.

The concept of the modern management process in the global arena of e-commerce?

What are the types or types of the modern management process in the global arena of e-commerce?

What is the importance of the modern management process in the global arena of e-commerce?

What are the strategies of the modern management process in the global arena of e-commerce?

Key words: Globalization, E-Commerce, Modern Management and Sustainable Development, Challenges of Digital Management In The Current Communications Era.

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Introduction

We have all read or heard a lot about the concept of development, and everyone has an image of it in their mind. Nowadays, few words have been raised to this extent in socio-political circles, especially management and economics.

However, as the writers say, the subject is both easy and difficult, easy because the general concepts and meanings of it are in everyone's mind, difficult because the definition, details, demarcation, and most importantly, the practical mechanisms for realizing development are still under discussion. We all know about economic development and its indicators such as production growth, increased productivity (efficiency), increased national income and gross national product.

On the other hand, we also know about social development and indicators such as fair distribution of income, equality and expansion of social justice, and it is said that after economic growth and even along with it and following entrepreneurship, job creation, it is appropriate and necessary for active people of society to work in the country's economic cycle.

Also, cultural development is a new aspect of the concept of development that includes indicators such as the possibility of proportionate and fair use of cultural spaces by all, the promotion of knowledge and understanding in society. And equally, political development is discussed, with components such as public participation in decision-making, open political space, and the possibility of public participation in power.

The future horizons of management, human development, the roles and duties of the government in the field of development and the issue of the administrative system development or the development of the administrative system will be discussed in this article.

Definition of the modern management process in the global arena of e-commerce:

Today, different definitions of the concept and term globalization have been given. Some refer to it as a general concept, namely the integration of world markets in the fields of trade, direct investment, and the movement and transfer of capital, labor, and culture within the framework of the free market capitalist system and ultimately bowing down to global market powers. Another group refers to it as the victory of the capitalist system in the world.

And some refer to it as the existence of unconditional competition at the global level in a way that makes rich countries richer and poor countries poorer. Another group refers to it as an era of profound capitalist transformation for all humans. However, it should be noted that globalization, from the point of view of all these groups, revolves around a concept, which is that this concept represents a continuous and ongoing process around competition between great powers, innovation, technology, globalization of production and exchange, and in other words, modernism.

However, it should be said that what has been applied to this phenomenon in terms of theoretical concepts is very different from what we are facing today in the international arena. As has been proposed in the literature on the subject, globalization has been referred to as welcoming a world, getting to know other cultures, and respecting the opinions and theories of others.

However, the new process of transformation that is defined in today's world in the form of a rethinking and a new system is a concept called globalization, which means the negation of others and the influence of other cultures at the point of contact of ideologies. In the science of semantics, globalization is the process of shortening distances, changing temporal experiences, and presenting a global nature. (Nafiseh Khajovi et al. 2019)

This transformation has been created in various dimensions in today's world. In the economic dimension, it includes the expansion and integration of financial markets for trade transactions, the creation of international economic organizations such as ECO, NAFTA, ASEAN, the European Monetary Union (Euro), the merger of large manufacturing companies (Chrysler-Daimler), in the political dimension; This transformation, with the fall of totalitarian and authoritarian systems, has been a trend towards democracy and political pluralism and respect for human rights, and in the cultural dimension; a trend towards creating a global culture with specific values and standards, and finally in the communications dimension, it includes the unlimited expansion of satellite networks and the Internet in the far corners of the world.

In examining the effects and consequences of globalization on the economy, it should be noted that; economic globalization has different effects and consequences for different countries in the world, both developed and developing. In simpler terms, in addition to the general impact of globalization on the economy in proportion to the structural characteristics of each group, countries have specific consequences in proportion to their economic structure. What are the types or types of new management processes in the global arena of e-commerce?

In recent decades, organizations have moved towards the use of information and communication technology in the fields of trade and commerce with great speed. In fact, the reasons for organizations entering e-commerce can be listed as follows:

High overhead costs

High operating costs

Lack of Competitive Technology Use

Not Responding to Customers in a Timely Manner

In the past, business was typically conducted face-to-face between two parties. But over the centuries and decades, business has become more complex. Today, a large percentage of business transactions are no longer conducted face-to-face, but rather by telephone or email, and by exchanging new plastic money. Traditional money is typically backed by the federal government and often comes in paper form, but in the last century, other forms of money have emerged, including checks, credit cards, and other forms of money orders. E-commerce can also be defined as: the buying and selling of information, products, and services over computer networks. We have expanded this definition to include supporting all forms of business transactions through digital structures, and its elements include: electronic marketplaces, electronic data interchange, and Internet commerce. (Sarafizadeh,, 2004).

This definition is consistent with the broader use that some companies make of electronic commerce. For example, Silicon Graphics, a global manufacturer of advanced computer equipment, uses its presence on the Web as a way to provide its customers with the information they need.

(This is to obtain product brochures and price lists). The company also uses the Web as a marketing tool (i.e., enabling customers to contact sales offices), as a sales channel (i.e., ordering software products online), and as first-line support (i.e., providing software bug fixes and answers to frequently asked questions).

Another example is Bank of America. This bank has enabled the transfer of financial information over the Internet. If we look at the problem from the buyer-seller perspective and apply a "life cycle" model, we can apply electronic commerce to all stages of the commercial transaction.

E-commerce and, consequently, e-commerce models were first presented in the early 2000s. During this period, the use of e-commerce models was very expensive, and its general users were large financial companies and banks, and sometimes large industrial companies.

The use of e-commerce during this period was difficult. In addition, heavy investments were required to provide the necessary platform. Therefore, its scope of application was limited to financial institutions and large companies. In the next stage, the electronic information exchange standard was created, which was a generalization of the financial and banking transfer model using emerging information tools.

The difference is that electronic information exchange also had the possibility of use and exploitation in other types of commercial transactions. Electronic information exchange caused the scope of application of e-commerce models to expand from the scope of large financial institutions to wider dimensions.

E-commerce models were used in this period for activities such as airline ticket reservations and stock trading. However, the implementation of e-commerce models based on electronic information exchange was also heavy and expensive. It was. There was a need for a lot of investment to train personnel and provide the necessary platforms. Therefore, only large companies could create models based on it.

In the first half of the 2000s, the Internet expanded greatly and gradually left the academic and military fields and found many users among all members of society. The expansion of the World Wide Web, relevant standards and protocols, on the one hand, attracted more and more users to the Internet and made the use of information technology tools in this field public, and on the other hand, it made it possible for companies and institutions to carry out the information process in an easy and low-cost way. Various e-commerce models were created and used during this period. E-commerce gradually flourished and e-commerce models emerged as a category of business models. The creation of suitable and cheap platforms for e-commerce and the growth of users of these platforms were among the reasons for the rapid growth of e-commerce during this period.

The growth of competitive pressures between companies was also another reason for companies to pay attention to e-commerce models. The models proposed at this time were simple and basic e-commerce models.

In other words, the use of e-commerce was carried out at its simplest level. Technical problems and existing defects, in addition to the unfamiliarity of users and companies that prevented them from investing, caused only the basic e-commerce models to be used during this period. These models were usually limited to informing their customers about the company and its products.(Bridging the Digital Divide: The Great Challenge of the 21st Century. Source: Information Technology iran.com)

What is the importance of the modern management process in the global e-commerce arena?

Gradually and over time, the recognition of users and companies of the benefits of e-commerce models increased. On the other hand, the technical issues and technology used also gradually improved. As a result of these issues, e-commerce models gradually evolved and new and more complex models were created and used.

In the second half of the 2000s, users and companies increasingly encountered innovations and improvements in information technology as a platform for e-commerce models. During this period, one of the most important developments in the Internet, as one of the platforms for e-commerce, occurred. This development was the addition of processing capabilities to information issues. The existence of processing capabilities created many possibilities for e-commerce and led to the expansion of e-commerce models and increased the efficiency of these models.

During this period, e-commerce models and the volume of transactions carried out by these models grew exponentially. Most large and successful companies that owe their success to e-commerce models came into existence in the second half of the 2000s. By the end of the 2000s, most e-commerce models had been formed with an emphasis on the end consumer and were classified as CONSUMER TO BUSINESS.

However, gradually, with the provision of opportunities and the possibility of serious use, large companies also found the use of e-commerce models appropriate and profitable. Therefore, they invested in models that help use this platform in communication between companies and fall into the category of institution to institution (BUSINESS TO BUSINESS). From this period onwards, institution to institution models surpassed institution to customer models in terms of transaction volume. E-commerce systems play an important role in adopting new customer management strategies because they:

- Connect buyers and sellers directly.

Support the full exchange of digital information between the two parties.

- Save time and eliminate constraints.

- Support interactive activities between the two parties and, therefore, can dynamically adapt to customer behavior.

Experts such as McKinsey have confirmed this with their predictions. They have predicted that in the early years of the 21st century, shopping without leaving home will be worth \$4 to \$5 billion. Recently, a consulting firm published the results of its research on the decline of the Internet industry in 1996. Their claim was that many companies started investing without first having a clear business strategy.(Hassani,2017)

At the same time, as the costs of an online presence in the business arena increase, companies will leave the Web, because they cannot find a valid reason to continue their presence on the web. We believe that the results of this research are partly correct, and a specific strategy should be formed before investing. The key point of this strategy is to understand the value of such analyses. In fact, the technologies used in e-commerce are not limited to the Internet and the web.

These two are certainly the most practical tools used in customer e-commerce systems and are often used in our examples, but this situation will change with the advent of intelligent tools and media data (text, audio, image, video, etc.) connected to a free network.

Similarly, media kiosks and interactive televisions also come in handy as e-commerce channels. If we limit e-commerce to direct sales only. The Internet as a distribution channel cannot compete with other direct marketing channels.

Making money through direct sales is certainly the first way to reduce the benefit of e-commerce. However, there are many other ways to do this. The three aforementioned categories, namely improvement, transformation and redefining the organization, indicate the degree of change in an organization's global business model and the impact of this change on the business as a result. Transforming an organization requires creativity and more work and also more risk-taking and spending time in a different way. Certainly, the successes achieved are proportional to the more bitterness we endure.

It should be noted that in some cases, improving a component of the business (for example, the sales channel) practically leads to redefining the core of the business. Therefore, the categories that we have proposed should be flexible, interconnected and overlapping. Some components for valuing the business are listed below.

A - Product promotion: E-commerce can help in promoting services and products through direct communication. The first benefit of e-commerce is providing information about the product to customers. This is done through online electronic brochures or buying guides. This is a new marketing channel that allows access to the maximum number of customers. The advantages of e-commerce as a way of providing product information are:

Availability 24 hours a day and in all locations, of course, is if the customer has the appropriate infrastructure to access this information, such as a personal computer, modem and Internet services. Another advantage of an electronic communication tool is interactivity and matching orders with requests.

There are different ways to advertise products online. This can be done based on customer demand or by changing the content to simplify or complicate it according to this demand. Another way is to display a number of products to a specific customer, change the price (for example, reducing it for club members) and allow new functions in some cases.

For example, a large electronic market can design different graphical interfaces for different users (children, teenagers or housewives), so that these interfaces are tailored to the needs of each of these age groups. The advertisements that appear on each page can also be different and toys are used for children, music for young people and jewelry for housewives.

This is in line with marketing trends such as segmented marketing or person-to-person marketing. In this type of marketing, a specific message is sent to each person based on their needs and desires, and each customer is targeted in this way. In a world where product differentiation is becoming increasingly difficult, product life cycles are also becoming shorter. And since customers have little time, e-commerce provides us with a good opportunity to introduce new promotional strategies and brand name enhancements. In this regard, the quality of advertising is the most important value for product promotion.

B - New sales channel: E-commerce systems are considered new sales channels for products due to their direct access to customers and their two-way orientation in information exchange. If we consider e-commerce and especially the World Wide Web as sales channels, two types of products are of particular importance: first, physical goods that are sometimes also sold in conventional stores.

An example of this is some computer software. Such products can be advertised or ordered online, and second, products that can also be offered through e-commerce tools. These products include information or software. For example, for the first type of products, so-called electronic catalogs are like online shopping networks where all kinds of computer and electronic goods are sold. These catalogs provide information about products. They support online ordering and payment and sometimes provide after-sales service online.

In the second part (information products), the e-commerce tool is practically transformed into a means of information transfer. For example, an electronic newspaper no longer uses paper and can be offered completely digitally. In some cases, there is practically no paper version of a service. In the case of software, one software vendor currently sells more than 122 software packages that can be offered digitally and delivered to the customer within minutes of purchase.

With the expansion of conscious product sales, new categories of product offerings are emerging. For example, if we consider the four methods of generating revenue through the web, the last two methods relate to new forms of products. (Hassani,2016)

What are the strategies of the new management process in the global e-commerce arena?

Direct method (for example, selling products);

Content sales (for example, selling information);

Advertising (for example, providing free information such as news or directories to attract customers). The opinions of others and the sale of this information to advertisers (; conducting transactions and linking) (for example, considering a specific fee for performing a task such as selling airline tickets online, or receiving a fee for linking to a service provider, like the method used in the advertising sector of various companies.

C - Direct savings: E-commerce can reduce the cost of providing said information to customers by using a common public structure such as the Internet and transferring and reusing information digitally. The third component of the value of e-commerce is related to the opportunity that this method provides us with to save costs. By using a common digital infrastructure such as the Internet - compared to physical structures - the costs related to marketing, distribution and providing after-sales services are reduced dramatically.

If the transfer of information is done automatically and digitally, the costs of people / telephone / mail and printing will definitely be reduced. The impact of this issue is especially evident in the service sector. In this sector, the cost of after-sales service to customers usually exceeds the cost of producing products. What is certain is that e-commerce systems, due to their future fate, reduce the cycle time of production and supply of services and information.

In some markets or for some products, the ability to distribute or receive the product shortly after its production is of great importance. This is especially true for information distribution, where large companies use the web or e-mail to distribute information in various areas. The goal of this work is to ensure that decision-makers in large companies receive information on time. (Doaaei,2005)

Management and E-commerce:

Considering what has been stated, organizational managers need information and communication tools more than ever in the field of business competition, because reducing competitive advantage is one of the most important consequences of incompatibility with information technology. (Liu and Glines, 2003).

The global challenge created in the field of management, which has taken on a different color and appearance with the emergence of the phenomenon of information and communication technology, is the most important and perhaps the most effective achievement of mankind over the past few centuries, to the extent that the most important commercial commodity of the present century has been introduced as "information".

The direct and indirect impact of information and communication technology on all structures and levels of people's normal lives and the penetration and development of the tools of this new era phenomenon in the most complex activities have been the most effective factor in technological development and, consequently, human information.

The potential capabilities of information and communication technology compel leading managers to bring their organization's potential capabilities to the forefront with a deep insight into the tools of this global phenomenon.

With this perspective, an attempt is made to examine and analyze the areas of information and communication technology and its functions in intra-organizational developments and extra-organizational communications with a broad perspective. Leading managers are always looking for technologies that accelerate and facilitate the flow of work.

In fact, managers are Effective communication between the longitudinal and transverse levels of the organization, as well as simplifying the flow of affairs for the collection and appropriate strategy of information related to the field of activity of your organization, are inevitable from recognizing the existing capacities of your organization and assessing the needs of complementary capacities. Using the power of information and communication technology in guiding the organization to lead against competitors is essential and fundamental.

Communication and information technologies perform many operations related to the organization, such as systems and automation flow. It must be said without a doubt that information and communication technology enhance the abilities and creativity of leading managers.

With this attitude, when a manager and his employees are injected with communication and information tools into their organization's structure, they can work faster and more accurately than before instead of working hard, while the manager can experience decentralized supervision and management. Given that the ultimate goal of every business relationship is to achieve commercial profit, it can be said that quantitative and qualitative communication with customers is expanded by using these tools and current and even capital and feasibility costs are reduced.

One of the most important indicators of proper understanding of information and communication technology by managers is the use or creation of efficient systems in the organization's structure. Given that each of the information and communication technology tools that are compatible with management systems can be effective in improving or creating defects in the management method and communication with the organization's audience, many factors are effective in changing manual systems to information technology facilities, including management commitment, having experience with information technology, user satisfaction, and the extent of environmental changes. (Sarafizadeh,2004). It is also appropriate that in selecting the systems:

- 1 - The system's performance should be clear to the organization's audience.
- 2 - The use of users should be accelerated and facilitated.
- 3 - It should have high flexibility in relation to technological or structural changes.

With this explanation, it can be said that a successful manager will be one who designs or selects communication and information technologies in accordance with the needs of the organization. In this case, when providing services to his organization's audience and customers, he will be able to consider the needs of customers in the provision of systems.

For example, the use of bank ATMs requires the need to expand the necessary training and culture to disseminate information about the use of credit cards. In using communication and information technology tools, managers are advised to be selective in determining the tools and, by conducting a comprehensive study of all the available tools of this technology, select and use those that will create greater convenience in administrative affairs.

Savings in it save time and reduces costs or increases revenues. To introduce an example of these systems, we can mention e-commerce systems (for online purchases and sales) and local networks or internal dedicated sites (intranets). Therefore, to manage intra-organizational information, the main areas of work must first be determined and the needs of each of the organizational components must be assessed in order to provide the best available technology based on needs and capacities.

Networks are the arteries of modern business and the main tool for sharing information and establishing internal and external communications. The selection of network systems is also made according to the number of users and their ability to quickly access databases. The decisions and tasks that must be made by the manager in selecting and setting up intra-organizational networks are about the number of users who must be connected to the network, in which case the level of network expansion changes depending on the number of users.

In terms of software, a manager must have sufficient information about different software programs and be able to use some of them in carrying out his/her work. This capability will greatly help the manager in selecting the software programs needed by the organization. The type of software that a manager uses in his or her organization's activities depends on the nature of the organization.

But in general, what is important is that managers should use software that has been used and tested by various organizations. Using an email program, you can prepare, send, receive, store, and manage your desired messages. The best way to set up and run email in any organization is to use a central computer to manage internal emails and control permanent or telephone connections to the Internet. Many organizations install and set up email without paying attention to the problems of electronic communications and without providing the necessary training to employees. (V.Komar et al.2007)

Organization managers should note that the same rules apply in the world of electronic communications that govern the publication of contracts and written claims. Therefore, a mistake can cause a lot of damage. In terms of hardware, organization management can provide the most important and effective role in developing the organization's capabilities in the context of information and communication technology. The organization manager should select the best and most efficient hardware tools needed in the organization, considering the needs and without considering the luxuries. In selecting hardware tools, the organization manager should consider future needs in addition to the current needs assessment against the cost incurred. One of the best ways to select tools is to consult with the organization's users. Depending on who, when, where, and for what purpose these tools are used, the type, quantity, and quality of the tools can be changed.

Typically, computer hardware is out of the manufacturer's warranty after one year, and after that, the customer will be responsible for ensuring the health of the device. For this reason, when equipping the organization with computers and all communication and information technology tools, it is mandatory to purchase from reputable companies.

Next, it is necessary for the manager to prepare the identity card of the existing hardware after purchasing and launching each of these tools in the organization so that the necessary services can be performed when necessary. One of the recommended methods for determining the type of organizational hardware is to assess the organization's software needs and then determine, provide, and combine the hardware with the selected software packages for each of the organization's components.

For example, the manager must determine what combination of hardware the organization needs in the graphics department, considering the type of existing software. Certainly, this type of approach to selecting hardware plays an effective role in eliminating unnecessary costs. We will mention examples of various hardware as examples. Deciding which monitor to use in each of the departments of your organization is a seemingly simple but important factor that can increase the organization's work efficiency and be effective in reducing and eliminating unnecessary costs. (Rundle-Thiele & Rebekah,2001)

Modern Management and Sustainable Development:

Sustainable development is a new concept that has been widely proposed since the 1980s through the link between different dimensions of development (economic, cultural, political and social) and special attention to environmental considerations and environmental protection.

On the other hand, modern public management has replaced public management in its traditional sense since the 1970s to increase the responsibility of managers to their surrounding environment. Therefore, in this article, after explaining "development" in the traditional sense, its new model under the title of "sustainable development" has been proposed as the basis of modern public management activities. Then, modern public management has been examined and analyzed as the axis of sustainable development and a tool for governments to achieve sustainable development goals.

Development Concepts and Perspectives:

Development is an interactive process in which individuals in working networks learn how to define and solve problems. It is also a process in which the compatibility of all sectors increases (Elliott & Devine 1994). Industrialization is a process that is solely for the creation of a kind of skill for problem solving. Modernism refers to signs, symbols and models (fashions) of technological life.

While industrialization is less social, modernism is more social and is in fact the social consequence of industrialization, and "development" is a multi-level process that can encompass all the concepts. In addition, modernity is a state, industrialization itself is a process that is much more limited than development, the process of development is open-ended, that is, it is unlimited and not closed. (Elliott & Devine 1994).

In the social dimension, perhaps it is not possible to consider precedence and delay for different dimensions of development (political, cultural, economic and social). Because compared to the individual, the community has unique properties that differ from the properties of individual individuals. In the individual dimension, according to Maslow's hierarchy of needs, most people have hierarchical needs (ladder) and only when the needs of lower levels are met, the needs of higher levels arise. For example, until an individual's physiological and security needs are met, the need for respect and socialization does not arise, nor do the needs of higher levels.

However, it can be said that at the social level, the needs of lower levels are also economic and needs such as political development (participation in decision-making) are placed at higher levels. However, considering a cycle for the dimensions of development in which the dimensions are interconnected in the form of interaction is more logical, of course, which aspect of development is more important depends on the society in question, for example, a society with a developed economy has priority over political development and vice versa. The difference in development in the traditional and sustainable concept:

- 1 - Sustainable development gives importance to considering "basic natural resources" as the first limitation, unlike traditional development which considered "capital and accessibility" to it as the first limitation of production.
2. The ethical policy of "preserving the possibility of using natural resources at least equal to us for future generations" is strongly considered in sustainable development.
3. In sustainable development, the value of all social benefits and costs (such as resource depletion) to determine the role of development must be included in the accounting system, that is, whether the cost incurred is in line with the intended goal of development or not (for example, deforestation At what cost?

4. In sustainable development, the absorption of production waste is considered a major function of the environment and a limitation on economic growth, while cultural aspects, the development of social justice, and more are considered. (Barber 2004).

Management and Development:

The organizations of our time have roles and missions beyond the traditional roles and missions. In an economic and social environment, new responsibilities and duties are on their shoulders, whether they want to or not.

Today's organizations have moved away from a purely administrative, economic and industrial institution and have become socio-political institutions that must be sensitive and aware of the issues of the social environment. Therefore, political and social knowledge is a requirement for today's management and respecting public interests and paying attention to the environment and social norms are among the important issues of all organizations and management.

In such an environment, considering the problems arising from traditional development and the new horizons and goals of development, paying attention to the old and new covenants of organizations with the environment seems essential.

And it shows the organization in the future world and refers to the organization's ability to respond to the pressures and expectations of society. In the model, not only is the issue of ethics raised, but also a practical and applied approach to issues is considered. Future horizons of development and management concepts:

There are two views (forecasts) on this issue, one of which is increasing industrial development, and the other is human and reasonable development. The characteristics of each of the views are presented below. The intellectual paradigm of human and reasonable development emphasizes harmony with nature, emphasizing that humans are part of nature and enriching it instead of dominating and separating from nature. In the opinion of some thinkers, humans are only a small part of nature, and their activities are a small part of a dynamic socio-economic subsystem.

Since management deals with humans, development is definitely ultimately about them, so development also requires developed humans who are prepared to gain new experience and change, pay attention to environments other than their immediate environment, open-mindedness in various issues, interested in planning and organizing in life, believing in the ability of humans to affect the environment instead of being merely affected by it, believing more in science and technology, and hoping for life are among the characteristics of a developed human.

Today, in the intellectual dimension, there is talk of transforming the type of thinking or logic from a tool to a substantive or value (substantive (rationality) thinking and logic, which can cause dramatic changes in relation to sustainable development thinking. Factors affecting human development include government, mass media, administrative systems, political parties, education, urban environments, religion, work environments, and so on. What was said was in order to understand the importance of non-economic dimensions and especially the human dimension in the development process and to pay special attention to management as the main axis in relation to the aforementioned dimensions. In a society where developed humans are found in abundance, the society in question, McClelland, i.e., an advanced and evolved society emerges and develops. (Narayandas,2005)

Challenges of Digital Management in the Current Communication Age:

Fawa News - Until recently, for example, a decade ago, many of the principles and foundations of management were still stable and established, and only the approaches and conditions created differences in management schools. But today, in the digital age, managers are faced with sharp and new challenges that are characteristics of the new era. Globalization, information technology, and the speed of change are some of these challenges.

But it seems that the most acute and ruthless attack that has befallen managers is the change in fundamental definitions that have been the basis for action and evaluation for years. Today, the definition of knowledge, wealth, and social values have changed. How do managers of organizations deal with these challenges? In this article, we will examine the challenges facing organizations and managers in the process of digitalization.

The problems of management in the current and upcoming decade can be divided into two parts: First: Those problems that impose instability and the speed of changes. Second: Those problems that destabilize intellectual frameworks and value systems. There is a complex relationship between pain and treatment in management today. In such a way that the side effects of some treatments require attention as much as the pain itself and many solutions have serious side effects that themselves require a plan and plan for improvement. And all these plans occur in unstable and unpredictable conditions with little certainty. In this summary, we intend to examine some of the most general and common challenges facing management today's challenges that almost all managers have some experience of facing.

And then, at the end, we classify managers in terms of how they respond to information technology, and especially information technology, and list the characteristics of each. Since the expansion of information and communication technology and the subsequent digital management of organizations is a new category, the research background in these matters is limited to the last decade. In our country, Iran, organizations have been moving towards digital management for several years with two general approaches.

First: To get rid of the high volume of bureaucratic organizational processes

Second: To pretend to be modern and innovative.

Unfortunately, the second approach is dominant. This is while older organizations with a classical structure have recently faced a new competitor: virtual and digital organizations. On the other hand, borders have been crossed, and global trade and marketing (Global Marketing) has put all local businesses (Local Business) against global competitors. This situation, which is completely unprecedented, has also changed the basic definitions. The main challenges of digital management in the past and coming years are:

1. Security
2. Stability
3. Human relations
4. Speed of developments
5. Changing the basic principles and customs of management. We will briefly describe each of the above and examine the side effects of the corrective programs that have been prepared for them. (Woodruff et al.1991)

Security -1

Information security and protecting organizational secrets have always occupied the minds of managers. Building safety boxes and protective mechanisms for storing paper documents has created a vast industry. Taking care of paper documents is not so difficult. But the higher this security, the higher the cost and access time (Time) we have increased.

But with the advent of computers and the emergence of a new type of document called digital document, Editing and accessing, issuing and transferring documents became simple and mechanized.

Simultaneously with these changes, a new type of violation was also observed, and the issue of digital document security was raised. Also, the problems of authentication and digital signature (Digital Sign) itself became a category that discouraged managers from electronic zing sensitive and legally valid documents. The reason for this reluctance and withdrawal can be three things:

A: Failure to design the information system correctly and in accordance with the needs of the organization.

B: Employees' lack of familiarity with the concepts of information technology and inability to work with computers.

C: The increasing growth of digital violations and concerns about data security. Case A is especially common in developing countries that are experiencing their first encounters with information technology. It is even difficult to find an integrated and flawless system in these countries.

B: Employees and managers' lack of familiarity with the basic concepts of information technology. Managers in the digital age need two new types of literacy. In addition to basic expertise, they also need the following two pieces of knowledge:

1. Information literacy.

2. Computer literacy.

Information literacy is the knowledge of using and analyzing information. Today's life is more than ever, it depends on information. Sometimes we feel happy and sometimes sad when we hear a number. And a number can make a manager successful or fired. But due to the influx of information, there is a need for information processing tools. These tools are also computers. And by computer we do not mean just decorative hardware, but rather an accurate and coherent information system consisting of appropriate hardware and software.

Working with computers and using information systems for processing and analysis purposes also requires gaining experience and specialized knowledge. And the weakness of managers in these two types of information literacy (types one and two) is one of the challenges facing managers and the reason for their resistance to computerization. Now, whatever type of organization it is, whether it is government or private, commercial or cultural.

A: Digital violations: Today, children are smarter than their parents. They work well with mobile phones and computers and do things that parents are unable to do. Managers of organizations are also in a similar situation. Employees often gain unauthorized access to confidential information, and the fact that the head of the company's computer department or the network administrator has more access to information than the general manager of the organization makes many managers anxious and discouraged, and discourages them from computerizing the administrative system. (Saeed Ahmadi Behnam, Electronic Commerce from the Beginning to Today, Information Technology <http://www.iran.com/> .)

Conclusion:

It should be said that creating a favorable platform for the development of information and communication technology in the organizational structure requires sufficient knowledge and positive attitude of managers to the necessities of the presence of this phenomenon in the process of organizational activities.

However, recognizing that a manager at the beginning of the process of creating an information and communication technology platform in his organization must prepare, test and communicate internal regulations and rules. These executive regulations of information and communication technology in the organization must be coordinated and compatible with the standards set by the competent authorities and organizational needs.

Given the importance of the role of information and communication technology in the development and expansion of organizational processes, every progressive and forward-looking manager is obliged to carry out the necessary groundwork and conduct scientific and technical consultations with those with knowledge of information and communication technology.

For managers to remain in the arena of economic competition and even to steal the ball of preemption from others, various information and communication tools and equipment must be provided and launched with a clear and sometimes complete vision of the organization's needs.

Since today's organizations have evolved from a purely administrative, economic, and industrial institution to a socio-political institution that must be sensitive and aware of its surrounding environment. This article examines and analyzes one of the important management topics, namely modern public management and its impact on sustainable development, which has not received much attention so far. It was concluded that, considering the concept of sustainable development as the most important topic of public management, it seems that the most basic function of modern public management is not much different from the development administrative system, and modern public management, with its emphasis on this function, is the development administrative system that can play an important and valuable role in achieving sustainable development.

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