

The Reality of Knowledge Management in Organizations: Greater Amman Municipality Experience

واقع إدارة المعرفة في المؤسسات: تجربة بلدية عمان الكبرى

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Abstract: The modernity of knowledge management as one of the hour topics, imposed the necessity to address this research and to give him enough attention, by taking cognizance of its conceptual framework and trying to address the most important processes and strategies of knowledge management, in addition to explaining the motives that led the Greater Amman Municipality to adopt this concept, highlighting the practical steps taken by this municipality in establishing knowledge management as one of the criteria of excellence that it has set in its mission.

The results showed that the Greater Amman Municipality followed a set of practical stages in order to integrate knowledge management in the daily operations of the organization, from the awareness stage to ensure commitment to the planning and implementation stage, disseminate knowledge, and then ensure effective communication between the parties involved in this experiment. The gradual integration of knowledge is essential in order to exploit the implicit and explicit knowledge found in the organization, which enhances its competitiveness and excellence.

Keywords: knowledge; Implicit knowledge; Explicit knowledge; Knowledge management; Greater Amman Municipality.

ملخص: فرضت حداثة موضوع إدارة المعرفة كأحد مواضيع الساعة ضرورة معالجته في البحوث الأكاديمية وإعطائه الاهتمام الكافي. وهذه الدراسة تهدف إلى تسليط الضوء على الخطوات العملية التي اتخذتها أمانة عمان الكبرى في تأسيس إدارة المعرفة كأحد معايير التميز التي وضعتها في رسالتها، وذلك بالتعريف على الإطار المفاهيمي لإدارة المعرفة وأهم عملياتها واستراتيجياتها، بالإضافة إلى شرح الدوافع التي دفعت أمانة عمان إلى تبني هذا المفهوم، وأظهرت النتائج أن أمانة عمان الكبرى اتبعت مجموعة من المراحل العملية من أجل دمج إدارة المعرفة في عملياتها اليومية، من مرحلة التوعية لضمان الالتزام إلى مرحلة التخطيط والتنفيذ، ونشر المعرفة، ثم ضمان الاتصال الفعال بين الأطراف المشاركة في هذه التجربة. حيث يعتبر التدرج في دمج المعرفة أمر ضروري من أجل استغلال المعرفة الكامنة والمعرفة الظاهرة الموجودة في المؤسسة مما يعزز قدرتها على المنافسة والتميز.

كلمات مفتاحية: المعرفة، المعرفة الكامنة، المعرفة الظاهرة، إدارة المعرفة، أمانة عمان الكبرى.

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1. INTRODUCTION

Knowledge management is one of the concepts of great interest to management researchers, As a result of the relatively modernity of the subject and the fact that it has become an important intellectual development in the business world (Seddighi, 2012). Many enterprises have been able to translate the results of the research in knowledge management into a practical reality that has led to increase operations efficiency and revenues (Adriaenssen, 2017). It is noteworthy that the concept of knowledge has always been used by organizations, but the new is to pay attention to it as an intellectual asset, and source of competition and modernity, and the status of knowledge management in practice.

Many researchers attributed the cause of this concern to two reasons. First, the trend towards reducing the size of organizations to reduce cost and maximize the return through which organizations lost a great deal of skills and knowledge, which led them to adopt the thought and content of knowledge management to protect their knowledge, Second, the technical development that has witnessed a major explosion in the sources of information and the acceleration of technological changes (Leydesdorff, 2018). This massive flow of information has limited the ability of business organizations to control it and doubled the possibility of losing it. The researchers see knowledge management as a means of controlling and rationalizing this information.

Through the above and in order to get to know more about this concept and its content can be raised the following problematic:

What is knowledge management as a modern concept applied by the Greater Amman Municipality?

In order to answer the problem described above, the study was divided into the following sub-questions:

- What is knowledge and knowledge management?
- What are the most important knowledge management processes, strategies and models?
- What steps did the Greater Amman Municipality take to adopt knowledge management?

This study is of great importance stems from the increasing interest of this concept in an era in which information and knowledge became the most valuable resources of the organizations, not to mention the great development in the technical field which resulted in increasing the flow of information and knowledge and the size of their families, And knowledge management has been considered the appropriate response to this development to address the limited control of organizations over this knowledge, in addition to the emergence of so-called knowledge management as a practical concept to bet on in the competition, if the organizations well reflected its processes and stages.

The methodology adopted in this study is the descriptive analytical approach, through which a greater theoretical explanation of the subject and some of its relations are delivered and analyzed. Moreover, the case study method was adopted to give a greater picture by addressing one of the organizations applying the knowledge management approach.

The study was divided into two chapters, first, a theoretical chapter dealing with the linguistic literature of the concept of knowledge, and addresses the conceptual framework of knowledge management and lays down its most important processes and strategies. Second, an applied chapter is a case study of the Amman Municipality and its adoption of the concept of knowledge management.

2. Theoretical Framework to Knowledge Management

In this part of the study, concepts related to knowledge and knowledge management are addressed in two axes, with focus on the most important processes of knowledge management followed by organizations.

2.1 The concept of knowledge

The linguistic meaning of knowledge is partial or simple perception, whereas science is a total or complex cognition (Wiig K. M., 1997). Therefore, It is said I recognized God, without saying I knew God. Knowledge has also been defined as information or facts possessed by a person in his mind for something, whereas the philosophical meaning of knowledge as expressed by Greek philosophy indicates that it is merely a broad perception. (al., 2012, p. 25).

It is also known as "a mix of experiences and information and includes human and non-human factors such as facts, visions, concepts, judgments, expectations, skills and dexterity ". (Al-Jamous, 2013, p. 30)

There are certainly no fixed characteristics of knowledge at all times and places. The view here is that knowledge has common formative characteristics but its content and perspective varies according to the social, economic, intellectual and cultural context in which it exists or is produced. However, there are distinctive features of knowledge to be launched, regardless of their nature and content. Housel & Bell refers to the following basic characteristics of knowledge: (Al-Jamous, 2013, p. 34)

- Knowledge is rooted in the minds of individuals: a lot of implicit knowledge is kept creatively in the heads of individuals;
- Knowledge can generate the mental fertility of companies that make them able to generate new knowledge;
- Knowledge can die: the death of knowledge is specific, some die by the death of the person and the other dies with the emergence of a new knowledge;
- Knowledge can be owned: Some companies have the ability to transform their knowledge into patents and trade secrets that enjoy legal protection;
- Knowledge can be stored: using various means such as computers, records ...etc.

There are many categories of knowledge to achieve effective management in organizations, to improve their use, and to develop the mechanism and processes of their creation into explicit knowledge that can be embodied in products and services. One of the most prominent classifications in this area is the Nonaka, which classified it into two main types: (Salem, 2012, p. 52)

- Explicit knowledge: Knowledge that is standard, formal, coded, systematic, rigid, quantifiable, transferable and educational, as well as patents, copyrights, trade secrets, business procedures, standards, products, services, and schemes.

- Tacit knowledge: It is the knowledge that exists in the minds of individuals, the subjective, the informal, expressed in intuitive, qualitative, non-transferable and learning ways, and is found in the work of individuals, teams and organizations. This knowledge gives the organization its privacy, personality and abilities to create knowledge. It is described as the organization member's experiences that have not been officially documented, and can be shared through conversations, and storytelling.

Most studies classify the sources of knowledge into two categories (Al-Ali, 2003). First, internal knowledge, which includes people, groups or workers who have knowledge and expertise in how to do the work, and they create new knowledge in their field, It also includes research and studies that contribute to the development of the organization's activity. Second, external knowledge that includes all relationships with external parties that lead to imitation and learning new experiences and skills, and dealing with the external environment in general.

2.2 Knowledge management: concept, tools and processes

Many scholars and writers point out that knowledge management was previously known, but it was not so at the application level. The term knowledge management dates back to the 1980s. This concept progressed gradually until it reaches its present form (Wiig K. M., 2000).

Knowledge management is one of the modern concepts and directions of business organizations, and there are many definitions to this concept, including:

Knowledge management is a process whereby accumulated experience is collected and used from anywhere in business activities whether in documents, databases or in the minds of employees to add value to the organization through innovation, application and integration of knowledge in unprecedented ways. (Hassan, 2008, p. 16)

It is also defined as the administrative function that is concerned with creating knowledge and identifying and ensuring that knowledge is used efficiently and effectively for the general benefit of the organization. (Development, 2014, p. 115)

Al-Kubaisi defined it as a term that refers to the processes, tools and behaviors that the beneficiaries of the organization share in formulating, storing, distributing and reversing knowledge in business processes to the best applications for long-term competition and adaptation. (Al-Jamous, 2013, p. 60).

The importance of knowledge management is highlighted by the fact that it helps to create a collaborative environment by acquiring and sharing existing knowledge, creating jobs and generating new knowledge, and providing the tools and inputs needed to apply and develop the organization's knowledge in pursuit of its strategic objectives. As well as, the access to and use of the greatest amount of knowledge increases the efficiency and creativity of the Organization and plays an important role in enhancing the efficiency and empowerment of individuals and groups and increasing the opportunities for participation to facilitate access to the Organization's information, objectives and policies from all parties (Call, 2005).

Knowledge management is based primarily on the human element, which is the mainstay of knowledge production. It includes people or so-called knowledge individuals who are able to generate, produce and apply knowledge through mental activities and the use of assistive technology that leads to knowledge (Ahmed A.S. & Omar E.M., Knowledge management and organizational performance in the Egyptian software firms, 2007). It also relies on information technology (IT), which plays a central role in knowledge management programs through its ability to accelerate knowledge transfer and generation, and also helps to collect and organize knowledge of groups and make them available through participation (Nesbitt, 2002).

Knowledge management in its activities is based on a series of interrelated processes that lead to each other and support the process that follows:

- Diagnose knowledge and determine its objectives: Diagnosis of knowledge is the first stage of knowledge management, and the success of

the latter depends on the accuracy of the diagnosis. This process, according to Van Buren, is only a diagnosis and identification of the kinds of human capital, the requirements of innovation, and the generation of intellectual capital and new knowledge and show it in a way that demonstrates its vitality and importance in Organization that adopts knowledge management systems.¹ It also defines the organization's critical knowledge of customers, market and product, and then searches for where it is located, whether it is in the heads of employees, systems or procedures. The second stage is the definition of knowledge objectives: Knowledge management, like other processes, defines the goals that guide it. Without these objectives, their operations become more ambiguous, more confusing, and more costly. "It leads to a lack of understanding by workers of knowledge that is critical to their work and that they must learn to improve their performance. Knowledge management should therefore develop clear knowledge objectives, such as improving information, facilitating creativity, customer orientation, facilitating and improving planning, decision making, and other goals. (Al-Jamous, 2013, p. 107).

- Knowledge generation and storage: Knowledge generation is one of the most important processes of knowledge management, and it is only a successful organization that constantly generates new knowledge, which has been called the creation of knowledge, the creation of knowledge, and the discovery of knowledge. In general, they refer to the process of extracting the knowledge and experience of individuals and storing them in a way that becomes available for use, "which includes imprisonment or purchase or the discovery, creation, absorption or acquisition of knowledge" (Ahmed A.S. & Omar E.M., Understanding the knowledge management-intellectual capital relationship: a two-way analysis, 2011). The sources from which knowledge is generated differ as well as the means, and knowledge can be generated through four methods.² The second phase is knowledge storage, which is a bridge between the process of capturing and retrieving knowledge, and it is the result of organizational memory that contains knowledge in various forms, including written documents, information stored in electronic databases, human knowledge stored in

expert systems and knowledge in procedures, organizational processes, and technical knowledge gained from individuals and networks. Technologies play an important role in expanding organizational memory and retrieving stored information and knowledge. Knowledge Stock Management processes the acquisition, retention and recruitment of knowledge with the assistance of supporting technology. (al., 2012, p. 123).

- Distribution and application of knowledge: Knowledge distribution is carried out to ensure that knowledge reaches the regulatory centers. This distribution is done through available means such as direct and indirect communication, learning and training. This phase requires everyone to share knowledge by adopting a culture that encourages it, providing the structural and regulatory environment and the appropriate environment, as well as adopting incentives that help to share knowledge and encourage everyone to transform implicit knowledge into an explicit use by others. The second stage is knowledge application: Successful management knowledge uses knowledge in time without losing the investment of a new opportunity to achieve the advantage or to solve the problem exists, and here Burk points out that the application of good knowledge is associated with the appointment of a good director who urges the application of knowledge, He stressed that the use or reuse of knowledge is through formal and informal communication and accompanied by reports. The application of knowledge and evaluation of its results bridge the gap between the acquisition of theoretical knowledge and its application and benefit from <Cit. Dissemination of knowledge in organizations may be preceded by application to a section of the organization in order to discover and correct errors. Among the tools adopted in the application are multi-expertise teams, training on business initiatives and adoption of measures to control knowledge. (Hamshri, 2016, p. 133).

3. Greater Amman Municipality's experience in adopting and developing knowledge management concepts

After addressing the theoretical aspect in an attempt to inform the linguistic literature of knowledge management concept and to identify its

operations and application in the organization, it was necessary to support the study with a successful model in adopting this concept and rooting it in the culture of the organization. As the time factor did not help us to complete a field study in one of the national organizations, As well as the lack of Algerian organizations that apply this concept, the experience of the Greater Amman Municipality has been used as a model for an organization that has adopted the concept of knowledge management and evaluated its success in integrating it into its culture.

3.1 Definition of Greater Amman Municipality

The first council of the city of Amman was established in 1909 and had a population of about 300 families, about 2000 people in 1950. As a result of the expansion of the city in the wake of the 1948 war, the Municipality of Amman was transformed into the Municipality of the capital and as a result of the steady expansion of the city, The Greater Amman Municipality is responsible for the provision of public services to citizens in the city of Amman in various fields including licensing, cleaning, numbering, bridge building as well as cultural, tourism, sports and various programs. It is a civil institution with financial independence and exercises the powers, functions and activities stipulated in the Jordanian Municipalities Law and its amendments. Due to the wide geographical area, the municipality has been divided into 27 districts providing all municipal services. (<http://www.amman.jo/ar/gam/about.aspx>).

3.2 Background of the adoption of knowledge management by the Greater Amman Municipality

The Greater Amman Municipality is interested in knowledge management because of many considerations, first of all, the Secretariat is among the many institutions seeking excellence and creativity in the institutional work. This endeavor has been a motive for the development of its policies and the building of its strategies to reach a culture of excellence and rooting it with the aim of making a qualitative leap and a real development of its performance, to improve and develop the services provided to citizens at high levels of Quality and efficiency. Secondly, the importance of knowledge management in building this excellence, which was recognized by the Municipality of Amman and sought to adopt this concept and to develop the knowledge management strategy within a plan to establish this concept and its application and development in order to

achieve the building of a distinguished and creative educational institution through effective and comprehensive participation between the municipality and the public to build a Knowledge Society base.

3.3 Amman Municipality Strategy to Adopt Knowledge Management

The modernity of the concept and the lack of practices and experiences necessitated the adoption of this concept through successive stages to reflect the gradual growth strategy of knowledge based on:

- Building a special strategy for knowledge management.
- Raising awareness and fostering a culture of knowledge sharing.
- Building knowledge management systems, taking into account and following up on international and global experiences and identifying and applying best practices in this field.

The knowledge management standard was adopted within five criteria that formed the excellence pyramid in a reciprocal relationship. These criteria are:

Fig.1. Standards of Excellence in Amman Municipality



Source: Prepared by researchers based on: <http://www.amman.io/ar/gam/about.aspx> (consulted on 20/02 /2019).

The Knowledge Management Standard was implemented at Amman Municipality in 2003. The first year of work was about awareness of the

concept and its dissemination within the municipality. The work was then developed to build a strategy for knowledge management adoption based on the strategic plan of the Amman Municipality.

3.4 Knowledge management application axes

The implementation of the concept of knowledge management has been based on four main axes:(<http://www.amman.jo/ar/gam/about.aspx>)

3.4.1. Awareness and commitment axis

This axis is the starting point and foundation on which knowledge management work is built within the municipality, There is no way to adopt knowledge management within the municipality without establishing a general culture of sharing knowledge within it. The work of knowledge management is a collective work of participation that requires awareness and knowledge first and then personal conviction and the desire to become a general culture prevailing within the institution. The Amman Municipality has taken practical steps towards achieving awareness of knowledge management and fostering a culture of sharing knowledge, including:

- **Establishing the principle of participation:** The aim of this step was to involve a large number of staff at all levels of management from the heads of departments and staff. This objective was reinforced by specialized knowledge management courses aimed at raising awareness and training on knowledge management practices and systems, All participants were asked to raise the awareness of the rest of the staff and to transfer the knowledge gained to them.
- **Creation of Knowledge Management Team:** This team was established by the Department, was trained and provided with the necessary capabilities and facilitated his mission with the Secretariat. He is responsible for laying the foundations for the implementation of knowledge management, formulation, follow-up and evaluation of the strategy. The team managed the awareness campaign to clarify the concept and importance of knowledge management at the individual and institutional levels. Within the framework of a clear plan that includes basic tasks in all four axes in

cooperation and coordination with the specialists and mention of these tasks:

- Preparation of a comprehensive bulletin on knowledge management: includes the concepts of knowledge management and its role in achieving the objectives of the individual and the institution.
- Prepare a survey questionnaire: Affects a representative sample of employees to measure the understanding of the concept of knowledge management and the extent of their knowledge management processes in their work. This questionnaire was adopted as a reference for building plans and setting measured objectives.

A number of recommendations have been made as a result of the field survey through the questionnaire and the observation, which were adopted in the formulation of the strategy and the preparation of the implementation plan. This questionnaire is followed by a standard questionnaire from time to time to measure the effectiveness of the strategy and the achievement of the objectives set.

- Visits in the field: These visits include the departments and regions where the team meets with all the concerned staff according to an advertised schedule explaining the purpose of the visit and the persons involved in the meeting. The visits also explained the concept of knowledge management in a simplified manner and dropping this concept on the reality of work within the department and its usefulness to the individual And the Foundation.
 - Preparation of educational aids propaganda: This step came to support the promotion of this concept and clarify its importance, and in a nice manner includes acceptance and interaction with him and his support and the dissemination of these propaganda means and suspension of all regions and departments.
- **Officers follow up knowledge management programs:** These officers belong to all departments and regions, with university qualifications, each officer carries the task of follow-up in each of his department, and were trained in specialized courses and prepare a program of periodic meetings with them to communicate and follow-up to achieve knowledge management

programs in all regions and departments, These are the team's first backers, relying mainly on the implementation of plans and programs developed and receiving feedback extensively.

- **Establishing Knowledge Corner:** These pillars have been circulated in all departments and regions where the knowledge assets related to the work of the department have been collected and indexed and then announced and disseminated and encouraged to benefit from them. This knowledge corner may be the beginning of positive steps on the ground to achieve the concept of knowledge management. The information contained in the individuals and the addition of what is necessary and then publish and make available the means for everyone to benefit from them, and the knowledge corner has been connected to a computer connected to the Internet and the internal Internet to allow everyone access to knowledge internally and externally.

- **Enhancing the role of the electronic networks:** This includes the internal Internet and the website of the secretariat to facilitate the transfer and exchange of knowledge, where many necessary knowledge was added to inform employees or recipients on the main pages of the site of the Secretariat and to allow them to provide feedback or exchange of knowledge through Contact.

- **Encouraging the exchange of knowledge:** The team promoted good behavior through knowledge sharing through leaflets and propaganda campaigns, and coordination with the administration and those concerned to encourage the promotion of this culture through:

- Develop a system of incentives to share knowledge.
- Recognition of knowledge sharing as one of the basic cognitive concepts in job description cards.
- Incorporate knowledge sharing into annual assessment models as one of the key items to be evaluated.
- Holding internal lectures and workshops and joining external seminars for exchange and transfer of knowledge.
- Establishment of an internal training center for the Secretariat staff to benefit from the implicit internal expertise and to encourage its transfer.

- **Encouraging the external community to exchange knowledge:** through architectural competitions and prizes for the best idea to beautify the city

and citizens' suggestions. It was announced by various means and honoring the participants as an initial step towards deepening participation with the public, service recipients and partners. In order to transform the external society into a knowledge society.

3.4.2. Planning and implementation axis

The steps of preparing the strategic plan for knowledge management were supported by the practical steps initiated by the team within its work plan, so that the questionnaires, meetings, field visits and studies were used to develop a strategy with real and practical goals, The team has been tasked with preparing the strategy, providing the necessary expertise and external consultancy, and reviewing the international practices in this regard, in order to build a clear strategy for knowledge management in the Amman Municipality. The following steps were adopted in preparing the strategy.

3.4.3. Axis of dissemination and generalization of knowledge: To achieve this axis, systems and procedures have been developed to share, disseminate and generalize knowledge through:

- **Develop a flexible knowledge map:** This procedure includes the following:

- Creating the implicit knowledge map within the municipality.
- Inventory of knowledge assets in the municipality.
- Identification of sources of knowledge within and outside the institution.
- The collection, dissemination and generalization of explicit and implicit information.
- The support by means of communication and information technology.
- Review and constant updating of knowledge.

Accordingly, a modern system for document management and archiving (electronic archiving system) has been developed, which includes the indexing, naming, retrieval of documents. This system has been introduced and disseminated.

In addition, An implicit knowledge index has been created, disseminated and advertised by appropriate means, through the establishment of a database of the experiences and the implicit knowledge of employees within the municipality.

- **Providing the necessary electronic infrastructure:** This structure is useful for the transfer and dissemination of knowledge, where the study of electronic readiness within the municipality in terms of infrastructure and human resources and the preparation of comprehensive plans to raise readiness, including:

- Increasing the electronic efficiency of systems and networks;
- Developing the personal capabilities of the employees through specialized courses, workshops and others.

3.4.4. Communication axis

Communication has been viewed as a central and core area of knowledge management and has been clearly mentioned in the strategic plan for knowledge management. A special communication strategy has been developed, including: First, internal communication, including communication between different departments and regions of the Secretariat, Between the staff themselves and, second, external communication and includes any contact with any entity outside the Secretariat and with all categories of service recipients and partners:

- **Internal communication plan:** In this plan, the following elements were identified: The purpose of the communication and linking it to the dissemination of knowledge and the speed of transfer efficiently and effectively within the institution, building a communication plan with a central reference in which the responsibilities and means of communication, Developing a system for feedback, activating the internal website of the secretariat (the Internet) and its use for internal communication, Work on the way to find a means for each employee to access the site and use and benefit from it through the corner knowledge, And to limit and activate all means of internal communication in the Secretariat and publicize them.

- **External contact:** This communication is necessary and important. It has been emphasized because of its impact on building confidence and giving a

positive image of the secretariat to the recipients of the service, In addition, it contributes significantly to reaching others and getting feedback.

An external communication plan has been prepared in which:

- Determine the means of communication programmed in time with the clarification of responsibilities and was announced through the website of the municipality.
- Making significant use of the website of the municipality for external communication operations, the delivery of information and feedback.
- Establishment of the Municipality Radio Company, which broadcasts on the FM wave and is directed to all target groups.
- Making use of the presence of the Secretariat as a party to the e-government for further communication and coordination with partners.
- Activation of the annual report and its development in order to further contact with the recipients of the service, where the work has been developed and distributed more broadly and included in relation to the municipality's plans and achievement rates of objectives and published on the website of the municipality, in addition to its distribution more broadly and comprehensively.

Through the four previous axes in adopting the concept of knowledge management, Amman Municipality has been able to become a successful global experience.

4. CONCLUSION

As a conclusion to this study and through what we have addressed in the theoretical aspect where we tried to know the concept of knowledge and what is meant as an administrative process with its stages, strategies and models, addressed to many organizations, in an economy that is associated with knowledge as a main supplier of competition and creativity, in any field.

We have taken a stand with the experience of the Greater Amman Municipality in adopting this approach and embracing its culture, citing the motives that led the municipality to this step, indicating the most practical stages experienced by the experiment, from the awareness stage to ensure

commitment to the planning and implementation stage, And then ensure effective communication between the parties involved in the experiment.

In this study, we can conclude the following results that could be the beginning of the approach to this concept, which is used in the study:

- Knowledge is present in all the folds and pillars of the organization, we find it in both internal and external environment, and that the knowledge exists in the minds of individuals is greater than the knowledge embodied in physical stores in terms of value.
- The experience of the Greater Amman Municipality confirmed that increasing the interest in knowledge management in all organizations and fields, making it a critical resource in the organization, investing knowledge in the minds of individuals and encouraging them to participate in these knowledge stocks, enhances the competitiveness and excellence of organizations.
- The modern technological structure, which is in line with the modernity of the concept, enhances the efficiency and effectiveness of this management, and predicts its success as the accelerator of its operations and the generator and store of knowledge and its distributor at the same time.

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