

Conceptual Analysis of the Change in the Historical Process in Thermal Tourism

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ABSTRACT

In this study, the development processes of health tourism and related basic concepts were revealed by n-gram analysis. In the digitalized books in Google database; concepts related to health tourism such as medical categorization, bathing and water treatment, tourism and tourism types have been selected as key words and the evolution of these words with respect to time has been studied. The frequency of occurrence was determined, and the relationships between the usage frequencies of these concepts and their time-dependent changes were analyzed and visualized.

Obtained findings evaluated together, it is observed that the concept of modern medicine has existed in the literature since the 1800s and rise after the 1890s. It has been determined that the concepts of hot springs, mineral water and balneology were used before the 1800s, but did not vary much except for small fluctuations. While the concept of spa was observed with high frequency between 1800 and 1850, it was found to be relatively low until the 1960s. After the 1960s it showed an increasing trend. The concepts related to health and tourism have increased after the 1960s, but have a widespread use frequency especially after the 1990s. Especially with the increase in the welfare level of societies, the increase in the frequency of use of these concepts is remarkably parallel.

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INTRODUCTION

Along with the existence of humanity, well-being has been one of the top priorities. From the earliest times, religious, divine and legendary meanings were attributed to phenomena, environments, large water resources, natural temperature environments, and hot springs that people had difficulty understanding. For this reason, such areas have always been thought to be healing addresses for people and have always been intense visit environments (Connell, 2006; Eriş, 2019; Rolker et al., 2015; Stober & Bucher, 2013). The oldest and most famous of these are:

Hammam Essalihine, Hammam Chellala (Cezayir), Oyoum Mossa (Moses Springs), Hammam Pharaon (Pharaoh Bath), Hammam Musa (Moses' Bath) (Mısır), Pamukkale-Hierapolis (Türkiye), Ojo Caliente Mineral Springs (New Mexico), Banjar Hot Springs (Bali), Cascade del Mulino (Italy), Khir Ganga, Himachal Pradesh (India).

Since natural water resources are the source of life and power in most religions, they have had a special place in society. People's search for healing in such places and their intense visits have made these places social, cultural centers and development centers of civilization (Eriş & Kemer, 2020; Mueller & Kaufmann, 2001; Vural, 2019, 2018b, 2018c, 2018a). In the Roman Empire, the Middle Chinese Dynasties and the Ottoman Empire, hot springs were both places used for physical health and hygiene, and also balneological centers where cultural and political discussions were held and time was spent. There were many hot springs in Japan and their popularity was also high. First of all, the bath culture, which had an important place in the Western Roman Empire, the use of such places as health and healing centers and the use of such places as visiting areas began to come to the fore in Eastern Rome after the collapse of Western Rome (Eriş, 2020; Eriş & Barut, 2020; Smith & Puczkó, 2017).

As the Western culture got more in contact with Arabs and Turks, the bath culture and treatment approach gained a new dimension and enriched. During the Middle Ages, many hot springs and baths were established all over Europe. The real revival in this area started after the 17th century. Spring waters are now being used for balneotherapy and balneology, both for bathing, drinking, and for regular treatment (Alonso-Alvarez, 2012; Walton, 2012).

18th and 19th centuries coincide with the golden age of hot springs in Europe. Therefore, during these periods, travels for health purposes (health tourism) were mostly carried out specifically for healing waters, springs and thermal springs. With the transportation security, the development of highways, the safe transportation opportunities provided by the railways, such health seeking travels have increased gradually (Miles, 2005).

After the rise of industrialization and urbanization, the protection of human health has become one of the important agenda items of countries. People gathered in big cities, the deterioration of the natural environment due to industrialization and industrial wastes, waste and dirty water, gases released into the air from factories and fuel-using transportation vehicles, the industrialization-based health problem has begun to take place on the agenda of humanity. Infectious diseases, which come to the fore from time to time, have also been effective in the increase of health problems. At the same time, the increased production and consumption after the Second World War caused the rapid depletion of natural resources and the rapid destruction of the environment (Tiryakioğlu & Tuna, 2016).

The Spanish flu at the end of the First World War, the Hong Kong flu in the late 1960s, the HIV virus in the 1980s, the SARS virus in the first quarter of the 21st century, the Ebola epidemic, Swine flu, Avian flu, and most recently from China in 2019. The new type of Coronavirus (Covid 19) spreading around the world has repeatedly revealed the importance of health.

After the rise of industrialization and urbanization, protection of human health has become one of the important agenda items of countries. People gathered in big cities, the deterioration of the natural environment due to industrialization and industrial wastes, waste and dirty water, gases released into the air from factories and fuel-using transportation vehicles, the industrialization-based health problem has begun to take place on the agenda of humanity. Infectious diseases, which come to the fore from time to time, have also been effective in the increase of health problems. Spanish flu at the end of the First World War, Hong Kong flu in the late 1960s, HIV virus in the 1980s, SARS virus encountered in the first quarter of the 21st century, Ebola epidemic, Swine flu, Avian flu and finally, the new type of Coronavirus (Covid 19) that spread from China to the world in 2019 has repeatedly demonstrated the importance of health.

Along with industrialization, a wide variety of ways and methods for the protection of human health and the treatment of diseases have come to the fore (Bomar, 2013). Some of these are protective methods applied before the disease starts. Some of them are interventions after the disease starts.

A distinction can be made between traditional methods and modern methods in protecting health and fighting against diseases. Modern methods are more operative, interventionist and positivist approaches that prioritize intervention in the human body with drugs and other medical devices. Traditional methods, on the other hand, are the ones that make use of the areas that are seen as healing places identified with

tradition, as given the general information above. Physician control in healing and health services in such areas has also developed over time. In the beginning, while the people here served as consultants / guides, over time, physicians began to replace specialized people.

Health seeking tourism has gained an important place in time as a natural result of traditional treatment methods generally being performed in certain geographies, places and centers (Smith & Puczkó, 2017). The actions of planning and realizing tourism for people to move from one place to another in order to live healthily or to solve the health problem they are experiencing are accepted as health tourism by WHO (Bushell & Staiff, 2001). Such activities may occur

within the country or between countries. Hot springs, healing waters, springs, mountain sports, places that are suitable for health in terms of climate and weather conditions are among the main destinations in health tourism.

In this study, some basic concepts related to health tourism were taken as keywords and their usage frequencies in the literature were examined with the n-gram analysis method. Thus, the historical development of the use of concepts related to health tourism in the literature has been tried to be seen and their relationship with social and economic events. It was investigated whether there was a meaningful relationship between them.

MATERIALS AND METHODS

N-grams is a probabilistic model used to predict the next symbol in a sequence. Language modeling in the classical approach refers to the prediction of the next word by looking at the previous words (Aleahmad et al., 2007; Bellegarda et al., 2014; Çiftçi, Ural, et al., 2020; Çiftçi et al., 2019; Çiftçi, Vural, et al., 2020; Huang et al., 2012; Kukich, 1992; Manning & Schütze, 1999; Osmanbeyoğlu & Ganapathiraju, 2011; Ural, M.N. Vural, A. Çiftçi, 2019; Ural et al., 2020a, 2020b; Vural et al., 2020, 2019).

Google has put the n-gram interface application into service so that users can analyze more than 1,500,000 books registered in the database with the n-gram statistical analysis method. This application,

where the data can be displayed graphically, allows obtaining different analysis results by using many different analysis parameters in a wide variety of fields. In this study on health tourism, it has been tried to reveal whether the usage frequencies of basic concepts in the literature show a significant relationship between each other.

Although the starting date of the search for the expressions to be searched in this study was started from the past as much as possible, the graphics were redrawn according to the date on which the searched expressions increased. In addition, 3 was preferred as a smoothing factor.

RESULTS

In order to address the issue in a multidimensional way, firstly, an n-gram analysis was performed for different tourism types in the Google books database

(Figure 1). In this study, the most used 10 types of tourism are automatically selected and graphed by the interface using the wildcard operator.

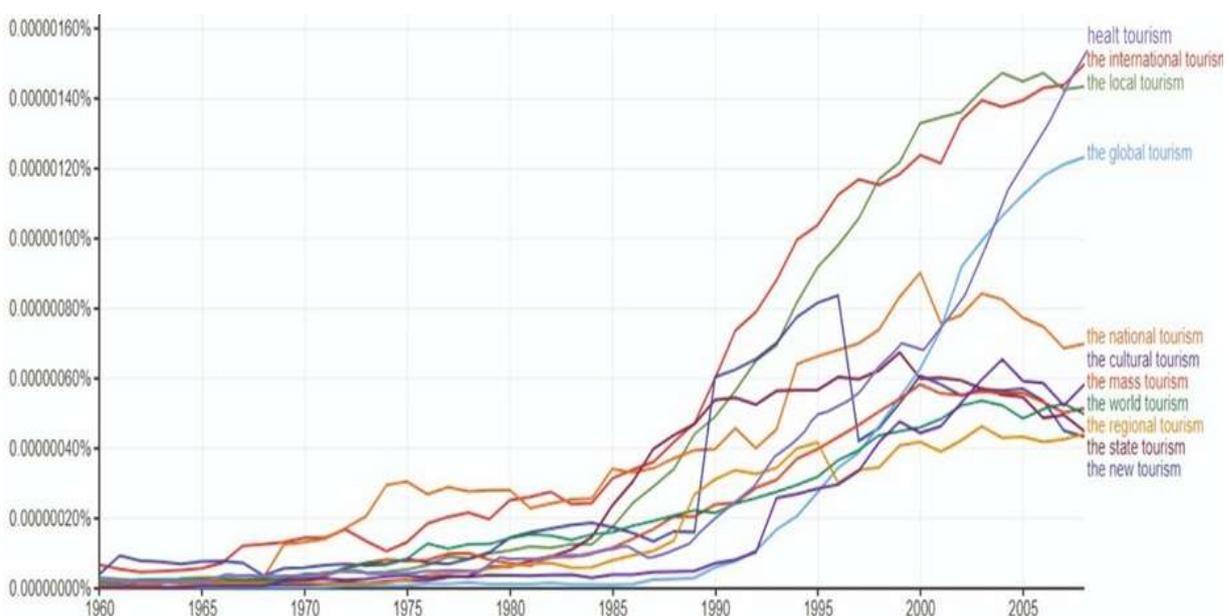


Figure 1. N-gram graphic of the most common tourism expressions

In the graphic, it is seen that the concepts related to tourism types have started to be used prominently in the literature since the 1960s, but it is seen that there is a generally horizontal trend until 1985. The increase in the frequency of use starting from 1985 draws attention. In addition, when the graphic is analyzed, it is observed that the use of concepts such as international tourism, local tourism, global tourism and national tourism in the literature is relatively higher.

However, when the graph was examined, it was observed that none of the concepts that were the subject of this study could reach the top ten in this graph. For this reason, the concept of health tourism was also transferred to the graphic, paying attention to the proportions, and combining two graphics with

third-party programs. It is the fact that tourism phenomenon, with its many types, has become widespread after the second half of the 20th century. The most common usage is the concepts of international tourism, local tourism and global tourism.

Health tourism, on the other hand, has historically been identified with concepts such as hot springs, hot springs, healing waters, and baths, but their use with tourism began when the concept of tourism was on the agenda. In order to determine which expressions related to "bath" occur more frequently in the Google books database, the graph of the 10 most used concepts was obtained by using the wildcard operator in the interface (Figure 2).

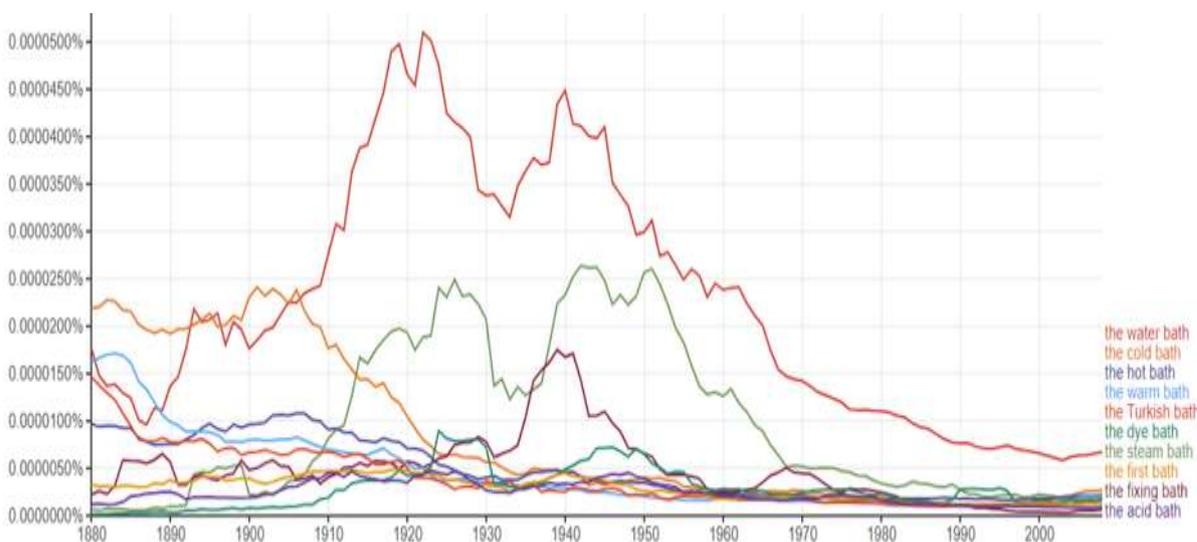


Figure 2. The most common bath expressions

When the graph is examined, it is observed that the varieties such as water bath, cold bath, hot bath and Turkish bath are relatively more popular (Figure 2). An interesting finding in this graph is that these concepts were also seen in the 1880s. However, the frequency of use of basic concepts in the literature started to rise significantly in the 1910s, peaked between 1920-1950, then declined afterwards. After the 1970s, the downtrend draws attention. One reason for this may be that the house has its own heating and bathroom facilities with the urbanization that took place after the Industrial Revolution.

When the graphic is examined carefully, it is seen that while the concept of tourism was frequently used independently at the beginning, the use of concepts such as baths and baths decreased while the frequency of use of the concept of tourism increased after the 1960s (Figure 1 and Figure 2). Therefore, it can be said that after this date, the concepts in Figure 2 have found their place among the concepts in Figure 1 and melted in a crucible. When the graphic is examined carefully, it is seen that while the concept of tourism was frequently used independently at the beginning, the use of concepts such as baths and baths decreased while the frequency of use of the concept of tourism

increased after the 1960s (Figure 1 and Figure 2). Therefore, it can be said that after this date, the concepts in Figure 2 found their place among the concepts in Figure 1 and were gathered under one roof.

When the n-gram graph (Figure 3) investigating the basic keywords related to bath treatment such as balneology, spa is examined, it is seen that the concepts of hot water, natural spring waters, mineral water and general bath treatment were also found in the literature before 1800s. Therefore, this frequency of use is parallel with the literature information (Aksu & Bayar, 2019; Carrera & Bridges, 2006; Mueller & Kaufmann, 2001; Reisman, 2010; Smith & Puczko, 2017). It is seen that there is no serious increase in the use of these concepts between 1800-2000. There are slight fluctuating variations.

However, the same is not true for the spa-massage concept. Especially in line with the introduction of tourism into daily life, a constantly increasing trend in the concept of SPA after the 1960s is remarkably observed. SPA has started to take an important place in the tourism sector, especially with the concepts of spa and massage. It is thought that the opening up policies in the closed Far Eastern societies, especially

after the 1960s, were also effective in showing an upward trend (Figure 3). Although balneology has an important place in health tourism, the concept of SPA has dominated in the mentioned period.

In this study, n-gram analysis of concepts including types of medicine was also created by using the Google books database (Figure 4). In this context, keywords such as alternative medicine, modern medicine, traditional medicine and Far Eastern medicine were analyzed.

When Figure 4 is examined, it is seen that the usage frequency of the concept of modern medicine in the literature remained horizontal until the 1880s, and it started to increase regularly after this date. The concept of alternative medicine started to appear in the literature in the 1970s and suddenly it started to rise rapidly. Especially with the introduction of the concept of alternative medicine into the literature, the concept of modern medicine has started to be

questioned. The graph clearly shows this relationship. When the graphic is examined, it is observed that the frequency of using the concept of alternative medicine in the literature has increased sharply in a short period of 10 years, such as 1990-2000. An important factor in this can be considered as the inclusion of eastern cultures in the western culture and the intensification of the search for cure from the eastern health culture as a result of this interaction.

As a result of this interaction, although it showed a serious upward trend in the beginning, it is seen that this usage frequency started to decrease over time after 2000s. Therefore, the idea that alternative medicine does not offer as great a miracle as expected has started to be accepted by the society can be seen as a result of this. After the 2000s, the frequency of using the concept has decreased and it has started to be out of date.

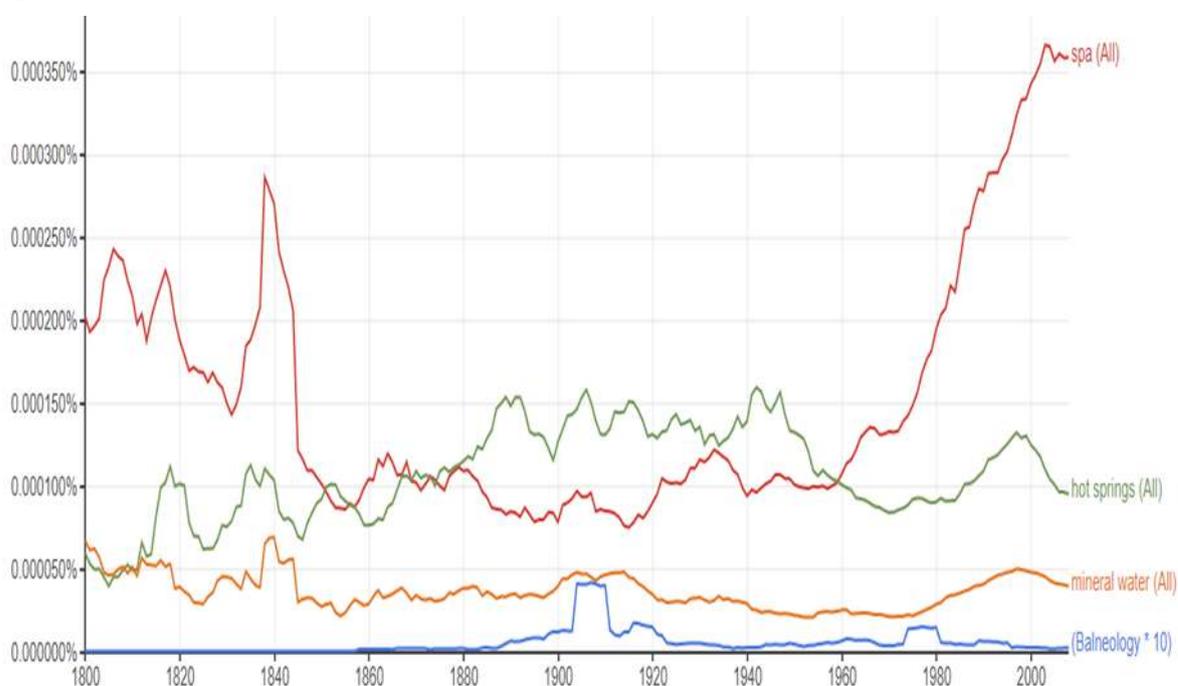


Figure 3. N-gram graph of concepts related to water bath and "balneology = bath therapy"

It is seen that the concept of traditional medicine came to the fore in the literature in the 1970s, started to rise rapidly in the 1990s and peaked in 2000. This result seems significant when considered together with the graphic of the concept of alternative medicine. Because these are concepts related to each other and it is quite natural that they should be handled together in the same literature. Discussion of concepts such as alternative medicine and traditional medicine, which

came to the agenda in the 1990s against modern medicine, has affected the graphic (Reisman, 2010).

Looking at the chart, it is seen that there are no meaningful results in the analysis of Far Eastern medicine. The handling of Far Eastern medicine in the literature does not show a change that is suitable for interpretation. The reason for this may be that the concept of alternative medicine has been widely used instead of Far Eastern medicine.

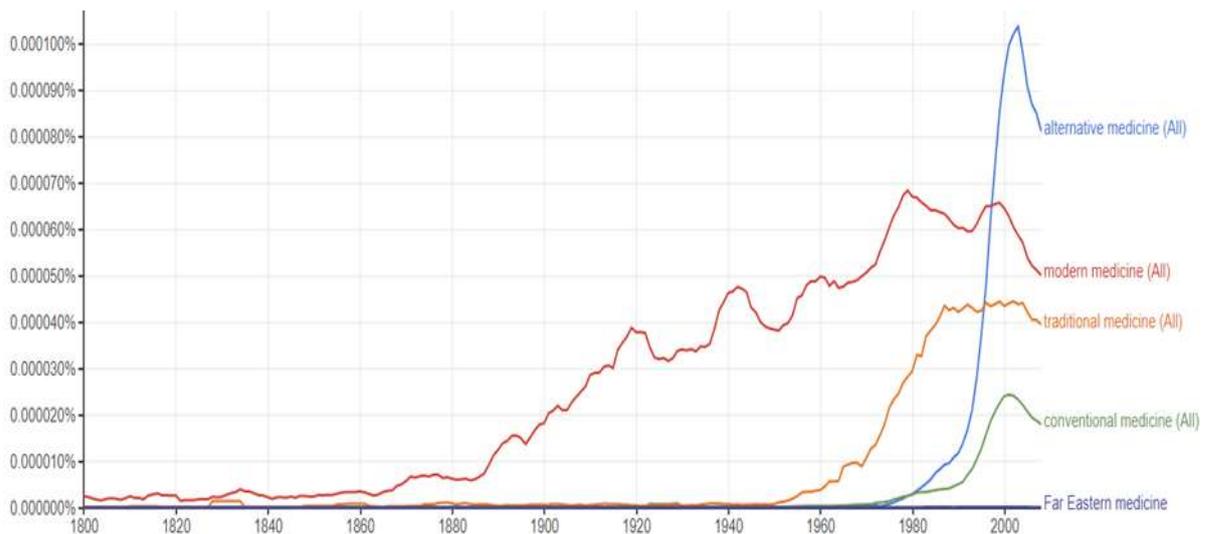


Figure 4. Historical trend of some types of medicine

CONCLUSIONS

When the obtained n-gram analyzes are evaluated together, it is observed that the concept of modern medicine has existed in the literature since the 1800s, but has been in a remarkable rise since the 1890s. This rise has been continuous over time. It has been observed that the concepts of traditional medicine and alternative medicine came to the agenda especially in the 1970s, and increased as a result of new searches in parallel with the increase in the difficulties that could not be overcome in modern medicine after the 1980s.

The increase in the frequency of using traditional medicine and alternative medicine concepts in the literature can also be associated with postmodern discourses that are getting stronger against modernism. Because the idea that there is only one truth in medicine, which belongs to modernism, has presented modern approaches in the field of medicine and health without any alternative. As the postmodern discourses get stronger, the concepts of traditional medicine and alternative medicine have started to take place more in the literature.

It has been determined that the concepts of hot springs, mineral water and balneology were used before the 1800s, which were accepted as the beginning of n-gram analysis, but did not vary much in general except for small fluctuations. The concept of spa-massage was observed with a high frequency between 1800 and 1850, it was found to be relatively low until the 1960s, and after the 1960s it showed an increasing trend. It is thought that this is due to the fact that the Far East countries, which are closed states, followed an open policy after the 1960s and the massage (SPA) culture, which was common in the Far East as a result of their efforts to integrate with the world, also took place in Western societies.

The concept of gym is also relatively similar to SPA. Concepts related to health and tourism have increased after the 1960s, but have a widespread use

frequency especially after the 1990s. This situation can be seen as a development parallel to the increase in transportation facilities in the world.

As a result of this study, especially health tourism, thermal tourism, etc. It has been revealed that more research is needed on the concepts.

In addition, it has been shown in this case study that n-gram analysis, which is an NLP (Natural language processing) method, can also be used in health tourism and will contribute to understanding the historical development process of health tourism. By changing the searched keywords, it is possible to make a similar analysis in other concepts related to health tourism. It is hoped that this study will produce an original analysis method and original findings by using many sources in the literature. This analysis provides new findings to this discipline by expressing verbally transmitted historical information visually and numerically, thus providing the opportunity to check whether the verbal history and numerical findings match.

It is hoped that the method of this study will both inspire new researches in the field and present new findings for old studies.

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Conflict of Interest:

The authors declare that they have no conflict of interest.

Ethical Approval:

No Ethics Committee Permission Required

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