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ECONOMIC EFFICIENCY OF INNOVATIONS IN CULTURAL INSTITUTIONS: THE CASE OF MUSEUMS

Анотація. Класичні музеї останніми роками перебували у складній ситуації, яку ще більше погіршило їх закриття через епідемію коронавірусу. Потреби дітей поколінь Y і Z змінилися, і інновації та цифрові можливості є природними для них. З цих причин визнано необхідність впровадження реформ у даній сфері. Акцентування уваги на культуру також була важливою для Європейського Союзу, адже у період промислової революції 4.0 та діджиталізації необхідно забезпечити ресурси для розвитку та переосмислення діяльності музеїв. Запровадження цифрових інструментів та інтерактивних можливостей стало необхідним для того, щоб молоде покоління могло знову знайти шлях до музею як культурної цінності. Крім того, він може стати активним і орієнтованим на прибуток гравцем в економіці, лише якщо він передає інформацію в інтерактивному режимі. Відвідувач вчиться на цьому та розвивається. І після позитивного досвіду він повторює візит. В економічному сенсі одним із основних завдань культурного маркетингу є вивчення практики споживання та рамок культурного споживання, що надає важливу інформацію для прийняття маркетингових рішень. Вивчаючи поведінку споживачів, що, чому та під впливом яких факторів відвідувачі споживають, і як вони, як очікується, вплинуть на майбутнє споживання. Створено окремі музейні спільноти, які виконують різні завдання. Культурний інтерес, охорона спадщини, відданість збереженню традицій і любов до прекрасного також створюють певну спільноту. Спільноти створюють по-справжньому привабливі музеї, які змушують відвідувачів повертатися знову та знову де в центрі уваги передача нових знань, отримання досвіду та сприяння особистій взаємодії протягом усього життя. Ілюструючи прикладами, інтерактивності – це не варіант для музею, а умова входження в 21 століття, а також умова економічного розвитку останнього, діяльність якого орієнтована на отримання прибутку. Подібно до того, як гроші оновлюються і постійно змінюються, музеї також повинні були прийти в XXI століття, однак шлях до інновації залежить від наявності достатньої кількості грошей.

Ключові слова: економічна ефективність, гроші, інновації, зміни, інтерактивний музей, можливості

JEL Classification: O31, Z 10



Absztrakt . A klasszikus múzeumok nehéz helyzetbe kerültek az elmúlt években, amit tovább rontott a koronavírus-járvány miatti bezárás. Az Y és Z generáció gyermekeinek igényei megváltoztak, számukra természetes az innováció és a digitális lehetőségek. Ezen okok miatt felismerték a reformok szükségességét. A kultúrával való foglalkozás az Európai Unió számára is fontos volt, IV. ipari forradalom, a digitalizáció időszakában pedig forrást kell biztosítani a múzeumok fejlesztésére, újragondolására is. A digitális eszközök, interaktív lehetőségek bevezetése szükségessé vált, hogy a fiatalabb generációk visszatálhassanak a múzeumba, mint kulturális lehetőségbe. Ráadásul csak akkor válhat a gazdaság aktív és profitorientált szereplőjévé, ha interaktívan továbbítja az információkat. A látogató tanul belőle és fejlődik. És egy pozitív élmény után megismétli a látogatást. Közgazdasági értelemben a kulturális marketing egyik alapvető feladata a fogyasztás gyakorlatának és a kulturális fogyasztás kereteinek megismerése, ami fontos információkkal szolgál a marketing döntésekhez. A fogyasztói magatartás megismerésével, mit, miért és milyen tényezők hatására fogyasztanak a látogatók, és ezek várhatóan hogyan befolyásolják a jövőbeni fogyasztást. Külön múzeumi közösségek jöttek létre, amelyek különböző feladatokat látnak el. A kulturális érdeklődés, az örökségvédelem, a hagyományőrzés iránti elkötelezettség, a szépség szeretete is közösséget épít. A közösségek igazán szerethető múzeumokat hoznak létre, amelyekre a látogatók újra és újra visszatérnek. Ahol az új ismeretek élethosszig tartó átadása, a tapasztalatszerzés és a személyes interakció elősegítése áll a középpontban. Példákkal illusztrálva, az interaktivitás egy múzeum számára nem lehetőség, hanem feltétele a 21. századba lépésnek, valamint egy profitorientált gazdasági szereplőnek. Ahogy a pénz megújult és folyamatosan változott, a múzeumoknak is meg kellett érkezniük a 21. századba, de az innovációkhoz vezető út összességében csak pénz kérdése.

Kulcsszavak: pénz, innováció, változás, interaktív múzeum, lehetőségek

Abstract. Classical museums have been in a difficult situation in recent years, which was further aggravated by the closure due to the coronavirus epidemic. The needs of the children of generation Y and Z have changed, and innovation and digital opportunities are natural for them. For these reasons, they recognized the need for reforms. Dealing with culture was also important for the European Union, IV. industrial revolution, and in the period of digitization, resources must also be provided for the development and rethinking of museums. The introduction of digital tools and interactive opportunities has become necessary so that the younger generations can find their way back to the museum as a cultural opportunity. In addition, it can only become an active and profit-oriented player in the economy if it transmits information interactively. The visitor learns from it and develops. And after a positive experience, he repeats the visit. In an economic sense, one of the basic tasks of cultural marketing is to learn about the practice of consumption and the framework of cultural consumption, which provides important information for marketing decisions. By learning about consumer behavior, what, why and under the influence of what factors visitors consume, and how these are expected to influence future consumption. Separate museum communities have been set up, which carry out different tasks. Cultural interest, heritage protection, commitment to preserving traditions, and love of beauty also build a community. Communities create truly lovable museums that keep visitors coming back again and again. Where lifelong transfer of new knowledge, gaining experience and promoting personal interaction are the focus. Illustrating with examples, interactivity is not an option for a museum, but a condition for entering the 21st century, as well as for a profit-oriented economic operator. Just as money was renewed and constantly changing, museums also needed to arrive in the 21st century, but the path to innovations is, overall, only a matter of money.

Keywords: money, innovation, change, interactive museum, opportunities

Raising the problem in general. The role of museums is to present the relics of an earlier age to those who choose this option for cultural enrichment. It can be observed that the needs of the children of generations Y and Z have changed. They

take different programmes instead of a standard guided tour, because they have different needs thanks to “smart devices”.

Just as money was renewed and it is constantly changing, so museums needed to arrive in the 21st century, and the path to innovation is, all in all, a question of money.

The reason why I prioritized the investigation of this topic is that culture is an important part of human socialization. The actuality of the problem lies in the fact that it was not possible to go to the museum during the covid crisis, and people got used to it. In order for more people to visit museums again, development and money are needed. And in order to be an active, profit-oriented player in the economy, it needs to develop and introduce innovations.

The study briefly introduces the concepts of museum and money. Through secondary research, it will show how museums have developed and evolved to where they are now. Hungarian and foreign interactive museums will be mentioned as examples of what novelties they offer to culture-hungry visitors.

Lockdowns due to the COVID-19 pandemic have also affected museums around the world. The Art Newspaper publishes an annual list of the 100 most visited museums in the world. In case of them, visitor numbers show a drastic 77% drop due to the pandemic in 2020 (230 million visitors in 2019, 54 million in 2020).

Hungary’s renowned museums also followed the mentioned trend, with 164,000 people visiting the Museum of Fine Arts, which represents a 68% drop. The Hungarian National Gallery had 66,000 visitors, that is an even bigger drop of 83%, but there was also a 69% drop in the Ludwig Museum.

Based on these figures, I thought that this problem should not be overlooked and should be addressed. Today, money is primarily the door to all opportunities, plus the marketing channels that go with it. To revive this sector of the economy from the constraints of the COVID-19 pandemic, it needs many different resources.

Analysis of the latest research and publications. The concept of museum, according to Bodó, goes back many centuries, and in the Renaissance, it was synonymous with the history of nature. And in the beginning, it was called museography. [1, 15. p.]

The term “museum” is defined in Act CXL of 1997 on Museum Institutions, Public Library Services and Community Culture, according to Article 42 (1): *“The museum is an institution consisting of scientifically organized collections of cultural goods, which for scientific, heritage protection, educational and knowledge transfer purposes, preserves, registers, restores, scientifically processes and publishes, exhibits and transmits in other ways to promote lifelong learning and sustainable development. Its activities promote research and understanding of natural, social, artistic, cultural and scientific contexts, monitor their contemporary changes and encourage continuous learning.”*

The law also specifies that the term “museum” cannot be used by just anyone, but only by an institution classified as a museum, which must appear under the name indicated on its operating licence. The museum has the right, among other things, to organise exhibitions, lend cultural goods and provide services related to scientific, conservation and public relations activities, within the limits of its free capacity. A



museum must have a museum mission statement approved by the maintainer and a museum digitisation strategy, under which it is entitled to pursue its professional activities. It should organise tasks on the basis of an annual professional work and financial plan and prepare an annual report on these tasks.

In 2019, the International Council of Museums (ICOM) tried for the ninth time to update the concept of museum, but failed due to a series of negotiations. Finally, the previously agreed views were maintained, including:

- not striving for profit;
- permanent institution open to the public;
- at the service of the development of society;
- collects, preserves and exhibits the intellectual objects of the environment and humanity

It was also important for the European Union that culture should also be addressed, and in the era of the Fourth Industrial Revolution, that is digitalisation, resources should be provided for the development and rethinking of museums. Within the framework of the project “Museum and library development for everyone EFOP-3.3.3-VEKOP-16-2016-00001”, between 01.02.2017 and 31.01.2020, applications for funding amounting to HUF 2 billion were open. The aim of the project was to prepare library and museum professionals and institutions for the new socio-economic challenges, with a focus on the younger generations of society. But it also highlights the importance of preparing teachers, and through them the public education system, for innovation in order to reach the effectiveness of development activity. In the museum field, the above project consisted of the implementation of pilot projects, the development and operation of a network of coordinators, methodological development, the design and implementation of new accredited training courses, professional monitoring, professional dissemination and the development of a museum quality management system.

Innovation and interactivity in museums were discussed before, Burcaw thus classified museums into three types:

- museums presenting memories related to human history;
- museums presenting works of art;
- museums related to science and technology. [2, 15. p.]

Museums also have a prominent role to play in lifelong learning. They have an important role in different learning methodologies, such as formal, non-formal and informal. [3, 15. p.] For this, the most important thing is to have the right resources, namely money.

The **concept of money** is defined by Garami as tangible currency of any material and appearance, regardless of its role in social, cultural and economic life. [4, 15. p.] Meyer-Solt added that economic actors use money on a daily basis, because wages are paid in it, but it is also a way to pay for goods and services, plus to accumulate savings. It can be concluded that a comprehensive, general definition of money is not a simple task. [5, 15. p.]

According to Vigvári, money is an integral part of everyday life, one of the most important elements of the financial system. The evolution of money is also studied by

several disciplines, such as history regarding its historical changes. And economics looks at the different monetary systems. Money is constantly changing, taking different forms in terms of shape and appearance. [6, 15. p.]

And although it is part of everyday life, it is also necessary to improve the financial literacy of the population, for which several programmes have already been made. [7, 15. p.]

Bourdieu wrote about economic, social and cultural capital, an important detail of which is that economic capital must be converted directly into money, while social and cultural capital must be converted into economic capital under certain conditions. [8, 15. p.]

The challenge for museums is how they can move step by step along the path to interactivity with financial plans, resources and innovations, with the aim of becoming an active player in the economy.

In her thesis, Tóth examined the state of museum communication and museum education in Hungary, mainly in terms of innovation and the attitude of museums towards the public. She conducted interviews which gave her a relatively comprehensive picture of the framework, opportunities and expectations of the profession. [9, 15. p.]

Museum interviewees were generally of the opinion that some kind of innovation or improvement was needed, but there was a constant tension because of this among the staff working within the institution. For example, between intermediaries (such as communication, museum education professionals) and academic (mostly curatorial) colleagues. Even though they are both art historians, they often found it problematic to represent the interests of the public in the exhibition design, because as professionals, they want to share the facts, not the “Disneyland effect”. And there was also a fear that introducing innovative ideas that would attract a larger audience and bringing them into the exhibition space might degrade the value of scientific research. There are still some museum education professionals who agree that the needs and aspects of the public do not have to be met in the physical space of the exhibition, that is they consider only classic type of museum important. The researcher observed that there is a sharp difference between museum practices in Western countries and current practices in Hungary. The reason for this may be that in Western society, participatory culture and innovative institutions with an audience- and child-friendly focus started to spread already in the 1950s. It was the time when the process of modernisation started, which started to become generally accepted. It became the precursor of the modern museum experience, because it began to focus on visitors as individuals, on their unique, relevant experiences, and with it the possibilities for participation, that is interactivity, became increasingly important.

In Hungary, the above social processes could not take place for political reasons, and it was only in the early 2000s that domestic museums began to recognise the importance of innovation, but this was not made possible by new paradigms, but by financial constraints. For sponsors, visitor numbers became an attractive data point for communication, and museums had to take action. To attract new visitor groups, they started to think of and later implement innovative ideas and solutions.



The main cause of the problem could be said to be that this resulted in a situation where the solutions were not integrated into the image of the museum, but could only be mentioned as isolated attempts, because museums exchanged the end for the means. In contrast to some societies where innovation started as early as the 1950s, new technology could serve as a tool to reach visitors, and should have remained the main focus overall. One thing is for sure, Hungarian museums are not to blame for missing out on social developments, but this has been a long-term barrier to keeping up with the latest trends.

The purpose of this article. Present alternative options for the path to museum innovation to illustrate through examples why it would be a good, innovative profit-oriented economic operator. Digital innovation occurred with the emergence of multimedia and the development of online culture. Traditional exhibitions can no longer satisfy the visual stimuli of a stratum socialised by digitalisation. It is therefore necessary to provide a certain “interactive culture”, which must be complex in the sense that it satisfies the visitors in all aspects, who then learn from it, develop and, overall, fulfil themselves by having a good experience. To achieve this, the following tools are essential:

- an “application friendly” environment;
- an accessible, spacious location;
- game options, including puzzles or question-and-answer games;
- usage and demonstration of digital tools;
- newer technologies should be part of the programme, such as VR (=virtual reality) or AR (= augmented reality).

Purpose and categories of cultural consumption

In economic terms, one of the fundamental tasks of cultural marketing is to understand consumption practices and cultural consumption frameworks, which provide important information for marketing decisions. By understanding consumer behaviour, we can find out what, why and under the influence of which factors visitors consume, and how they are likely to shape future consumption [11, 15. p.].

In 2016, the Századvég Foundation conducted a quantitative culture survey in Hungary with the participation of 1002 people, which enabled it to classify respondents into five groups based on their consumption habits:

16% of respondents are “high culture consumers” who regularly go to museums, theatre and even classical music concerts.

19% of respondents are “mass culture consumers” who prefer cinema and concerts.

“Moviegoers” only go to the cinema, 18% of those surveyed.

“Omnivores”, as the name suggests, are open to cinema, light music concerts and even performances of high culture, 18% of respondents.

“Stay-at-home” respondents are 33% of respondents who are not consumers of any of the arts.

The responses to the Századvég survey show that consumer marketing has not yet reached a third of the respondents, so there are still challenges and unexplored opportunities to make museum visits part of their cultural development.

According to Kotler, consumption theory is primarily theoretically motivated, looking at the consumer market from a practical point of view, as opposed to microeconomic theories, supported by the 7Os:

- occupants;
- objects;
- objectives;
- organisation;
- operations;
- occasions;
- outlets. [12, 15. p.]

In contrast to traditional consumption research, which argues that consumption is structured by product characteristics alone, modern views now highlight that consumption is diverse and subject to social influences. Which can therefore vary widely for different consumer groups for the same product. The task of consumer research is complex, because it is trying to show in detail the diversity of consumer groups, the variety of consumption situations and their consequences. Consumer typology helps decision-makers to identify typical motivations or differentiate between offers, and to develop the right marketing strategy. The target system of consumption essentially provides the drivers of consumption, and therefore it is possible to categorise consumption by dimension.

According to the marketing literature, we can speak of *functional consumption* (aimed at problem solving) and *emotional consumption* (a mean to achieve an emotional state). However, one problem arises, life is not black and white, that is in reality they are not so circumscribed, but the two categories are present in consumption situations at the same time, they just vary in proportion to each other, depending on the consumer needs. [13, 15. p.]

According to Törőcsik, *functional consumption* is characterised by the fact that it is aimed at solving a certain problem, which means it can be easily justified for some reason. In such a case, the benefit of the product lies in its ability to fill a function, with the expectation that it fills the gap, solves the problem. This could be formulated as the consumer choosing the most optimal product for him at the moment of the purchase decision with low emotional involvement, but with rational arguments. [14, 15. p.]

In contrast, *in case of emotional consumption, the purchase is associated with feelings, it is not a rational category at all.* A typical case may be when consumption does not logically follow from the consumer's life situation, or perhaps from his consumer behaviour, but maybe the consumption of the product carries some symbolic message, a desired emotional surplus. Within this, we can distinguish self-expressive consumption, where positive feedback from the environment provides positive consumer experiences. On the other hand, there is self-soothing consumption, where the consumer acquires emotions directly, through indulgence, rewarding, soothing or pleasure. [14, 15. p.]

Presentation of research results. Other players in the economy also realised that it is possible to create an experience with a little interactivity. OrientTeam offers



different simulation options, for example the company orientation simulation, where the employee is introduced to the employer. Through the simulations, participants do not just passively absorb the world, but rather discover it for themselves, which makes the knowledge deeper and more personal and, of course, can be learned through interactive games. They can gain a more practical understanding of the different roles, opportunities and expectations for the future. And with simulation experiences, they can integrate more confidently into the workplace community and daily processes.

The above example could also be a scenario for museums on how to make a difference. Most importantly, the new museology shifts the focus from the collection to “*the relationship with the collection*”. The use of digital, newer technologies makes the museum experience more meaningful. Digital technologies fundamentally changed the museum visit, *transforming it into hybrid spaces* where the physical presence of artworks is mixed with the virtual lives of visitors and stories. [15, 15. p.] A noticeably greater impact can be achieved if visitors are active participants in an exhibition than if they only listen to a guided tour or read the facts, because they can interact with the exhibits in a metaphorical sense, and thus they can relate to the subject matter, which makes it easier for them to absorb the cultural message. [16, 15. p.] They are open to interactivity because it makes it easier to reach younger people, even those in secondary school. And they can also reach many digitally-minded visitors who may not visit museums otherwise because they remember the strict museum rules of “*no touching*”. And old habits are a strong barrier to the visitor experience [17, 16. p.] Kőkény also mentions a study that focused on demonstrating the importance and significance of integrating new technologies and physical objects while at the same time providing museum visitors with the opportunity to remain in uninterrupted contact with “real and digital materials” without creating a digital experience. [18, 16. p.] This is because previous studies in the field of human-computer interaction showed that the use of *screen-based interfaces* in museums leads to an isolating experience, thus inhibiting interaction and in some cases serving only as a substitute for the exhibits. In contrast, the new generation of *embedded technologies* engage visitors through the digital augmentation of the place, in the form of “tangible interaction”, where the interaction itself is delivered by the embedded technology plus the digital augmentation of the physical space.

Interactive exhibition, the above-mentioned term is a word of Latin origin, the meaning of which is “mutual, based on direct contact”. Interactive devices can be associated with tablets, sound imitating, spinning, colourful games, which is not far from reality, because in short, it means the possibility of empirical and sensory cognition based on experience. The interactive devices are easy to touch and feel. There are many definitions of the term, in short, anything that influences two people or objects.

According to Bodnár, the levels of interactivity are the followings:

- passive interactivity: which is just a push of a button and there is a specific path to follow;
- hierarchical interactivity: which is already an interactive board with clickable information;

- feedback interactivity: like a quiz, with an immediate answer after a given choice;
- building interactivity: a completed task, which could be a puzzle or some kind of treasure hunt game → the point is to have a result only at the end;
- simulation interactivity: similar to the previous one in that it has right and wrong answers, which could be a simulation game of a battle;
- free interactivity: several possible answers, several longer or shorter paths, e.g.: a labyrinth game;
- situational interactivity: which takes place in the most advanced virtual reality, e.g. The Sims. [19, 16. p.]

Fabio Viola described the experience in virtual space as also working in the real world. So, museums need to move from third-person to first-person presentation, thereby making visitors not only as admirers of culture, but also as active creators and shapers of it.

Schulz concluded in her research that the promise of experience is what attracts visitors to a museum. The visitor experience is a much more complex, interdisciplinary field of research. The competitiveness of museums in Vienna, Budapest and Prague was examined, with Vienna receiving the best rating, with its iconic museums. As a practical suggestion, she identified visitor management, customised and potential solutions and the exploration of potential markets as areas for improvement in Budapest and Prague. In her opinion, this would enable museums to position themselves in the tourism market. [20, 16. p.]

Presentation of research results. The future of smart technologies for cultural heritage and museums, Kökény argues that the consequences of the COVID-19 pandemic also changed the demands of the information society, making it increasingly necessary for cultural heritage sites and museums to move to smart technologies, not only to enhance the visitor experience but also to increase accessibility and information flows. The role of museum education and mediation in museums and heritage sites is becoming increasingly important. Furthermore, education also has an important role to play, and here it is worth highlighting the social shaping effect of cultural education, which will define the art of the future for generations Y and Z. Visitors' opinions were that general information no longer meets their needs, they expect extra interactions that they are happy to share later and that they want a deeper experience. It was found that they were more likely to return to an institution if they had the right level of interaction during the visit. The opinions expressed are important because they give feedback to museum staff on areas for improvement and hidden opportunities. This also revealed that visitors do not prefer smart devices that separate the experience of the objects on display from the physical objects in space and time during the museum visit, because it degrades the visitor experience and makes it more difficult to process information. And it is not a new demand that people like to learn while having fun, but with new innovations in actual, on-site visits and remotely accessible "walk-through" content, they are witnessing a paradigm shift in the museum experience. Innovation that delivers experiences enhanced by virtual content, entertains in a playful way and engages the visitor more deeply. In this ever-changing



space, the visitor, who is more or less an avatar, is in many ways different from the “classic” type of museum visitor. But it anticipates the demand from visitors, currently being in its infancy, that everyone should have the opportunity to create their “own museum”, where they will even have the opportunity to collect only the objects that are important to them. [18, 16. p.]

Arapovics highlighted museums as a task of community development:

- Supporting community initiatives, developing professional communities that easily involve collectors and artists. The implementation of joint projects can make work more efficient.

- Developing organisations and professional networks supporting community initiatives.

- Programmes to strengthen public education. One of the best examples is the Night of Museums or the Autumn Festival of Museums, with local programmes and actions creating new traditions.

- Develop volunteering and community service through museum related friendly circles. For example, the Museum of Fine Arts, for example, offers programmes that grew into a prestigious club.

- The development of civil society and the strengthening of local communities, which can be achieved through heritage conservation and local knowledge.

- Organising conferences, training courses and open universities. These not only help self-development and self-education, but also help the groups of students that are formed to create a new community.

- Personal objects and related stories, donations. The objects displayed may also tell a personal story. The Skanzen in Szentendre, for example, by presenting the history of the objects, brought families together in a community, who through their acquaintances can attract new groups of visitors, sponsors and donors to the museums. [22, 16. p.]

Example of a Hungarian interactive exhibition

The Hungarian Money Museum, with the slogan of “Building the economy with you. Building the world with you”, it presents the development of the history of money, the process of the creation of money, the stock exchange and banks through playful exercises. It uses examples to illustrate how difficult life would be if there were no intermediary, that is no money, and if you had to decipher how much wheat you could sell for a smartphone. In addition, there are many things to try, such as using a dry stamp, a tube post, but you can also design paper money or lift a gold bar. All in all, it can convey the feeling that “*we will have to come back here*”.

Example of a related project for Hungarian students

And for students, there was a programme where, in the framework of a project on Hungarian language memorials and periods of language history, augmented reality content was used to encourage students to explore and learn about the memorial sites and values in our environment. “*What makes museums loveable?*” – students worked in cooperative groups to find the answer to this question, as well as how they could create an interactive exhibition or a virtual adventure tour for their fellow students. In practice, the students’ task consisted of first designing a museum building using

Minecraft, creating web pages using Google sites, and even designing a radio and TV spot. Then they created slogans and posters, as well as the museum's logo. In the second module, an interactive exhibition had to be created. Using an app called Aurasma, students easily created their own augmented reality. This has the particularity of using a wide range of ICT tools and applications, as well as modern project planning methods (stakeholder analysis, goal tree and problem analysis, SWOT analysis). After that, there was nothing left to do but to go on a virtual adventure!

The above programme impacted on the following key competences:

- Communication in mother tongue;
- Digital competence;
- Effective, autonomous learning;
- Initiative and entrepreneurial skills;
- Aesthetic-artistic awareness and expression.

Other interactive exhibitions in Hungary include:

- Invisible Exhibition;
- Miniversum;
- 3D Gallery Budapest- interactive gallery;
- Vajdahunyad Castle;
- Palace of Wonders.

Examples of interactive exhibitions abroad

House of European History, Brussels (Belgium)

An exhibition on the history of the European Union. Here you can listen, see and touch history. Interactive maps help you discover the continent and its recent history.

National Leprechaun Museum, Dublin (Ireland)

A leprechaun is a well-known figure in Irish mythology, who has magical powers and stands somewhere between fairies and dwarves. It is a museum where visitors can feel as if they are so small and belong among them. Here you can try out what it is like to be a little person. For example, you can sit in a giant chair, experience the magic of mythology and discover secrets such as where leprechauns hide their treasures.

Museum of the Future, Dubai (United Arab Emirates)

In a 77-metre-high building, it reproduces a dreamlike world fuelled by solar energy and dynamic development. Visitors to the museum are guided by Aya, working on the principle of artificial intelligence.

The building itself is symbolic, a circular structure symbolising humanity, with a green area below representing the Earth and a hole in the middle representing the unknown future. Its purpose is to raise awareness of the health of the planet and its biodiversity. It takes visitors on a futuristic two-hour journey, anticipating what the world will be like 50 years from now, based on current thinking. The opening of the museum projects a presumed new era of scientific discovery. Children are not forgotten either, as in a "Heroes of the Future" room, they can develop their creative, communication and cooperation skills in a playful way that will give them confidence and courage. And if they create something new, solve a problem or try something new, they will receive a recognition badge at the end.



“The museum’s ethos is that the drive toward a sustainable future and healthy planet should not prohibit progress and economic growth,” Sarah Al-Amiri said, President of the UAE Space Agency and UAE Minister of State for Public Education and Future Technology. In her opinion, the aim is to turn a challenge into an opportunity. Brendan McGetrick, the museum’s creative director, believes that in the process of innovation and development, we need to be aware of what we are doing for the planet and how much more needs to be done.

Other interactive exhibitions abroad include:

- Panopticon on the life of Sissi - Vienna (Austria);
- Hello Bratislava! - Bratislava (Slovakia);
- Beekeeping Museum - Radovljica (Slovenia);
- Museum of Illusions - Belgrade (Serbia).

Conclusions and possibilities for further research. Life is unimaginable without money, resources are needed to implement innovations. Digitization and profit orientation set a new direction in the life of museums. Secondary research shows that, due to the missed social development, the development of museums was left out for half a century. In its spirit, it could be thought of as an institution that follows traditions, presents heritages, and is bound by strict rules, for which competition orientation and profit maximization were not among the goals at all. Among other reasons, a part of the society did not visit museums for self-education after the school years. For more than a decade, technical development, Western trends, and reformer art historians have highlighted the need to reintegrate people into the direction of culture and to renew old views, because the classic museum cannot give the technically active Y and Z generations the experience it is meant to provide in terms of cultural transmission. At that time, for the first time, the long, dry, fact-filled texts were projected in a slightly wrong direction, on a monitor instead of paper. Of course, it did not bring the expected success. They were open to the interactive direction from a new approach, and it was visible that people were open, curious, and even more emotional when they were able to interact with an object than if they just read its story. And this satisfied emotional consumer needs that carried the feeling of having to experience it again, to show it to others, and thus became more deeply embedded in the minds. Developments required sponsors, for whom the number of visitors was a milestone in decision-making, and this is where the previous old approach began to point in a new direction. In this way, visitors can be reintegrated into museums after the loneliness caused by covid. The museums also became interested in attracting as many visitors as possible and giving them an extra experience that will make them return again and again, with family and friends. It is also important for museums to become an active player in the economy, which is open to innovative means, aims to be profit-oriented, affects consumption with the help of marketing, and is able to pass on traditions and values to new generations. It also emphasizes community building, in addition to encouraging lifelong learning.

By applying new technological solutions, the traditional museum visit takes on a different perspective. Innovative museum experiences: interactivity, personalization, elimination of spatial-temporal access limitations, involvement, experiential

knowledge transfer. In addition, they also have a utopian task, according to which the experience elements of the cultural heritage sites must be assembled in such a way that the cultural heritage can be integrated into everyday life for the visitors, personal interaction can take place, with which the past can be understood more easily, plus something can be added that will pass on the heritage to future generations. To see that more and more research is being carried out regarding the reformation of museums.

I think that I will continue my research on the topic, where I plan to examine the possibilities of museum communities, where they could be further developed, and what they could achieve with an active museum association. Furthermore, I am also planning a primary research in which I would present the museum's ideological change from the perspective of active-age people.

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