

# How Modern and Innovative Czech Museums Are? – Results of a Quantitative Research

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## Abstract

**Background:** Museums, as a part of the information infrastructure, play an important role in the society. Nowadays, museums have to reconsider their approach to visitors in order to prosper and to remain relevant. Therefore museums need to innovate. With increasing frequency, new media, other technologies and various participation strategies are used for building information environment and functional communities around the museums.

**Aims and methods:** This article's objective was to examine how Czech museums accommodate their visitors' needs represented by their communication types. Based on psychological, biological and neuro-linguistic theories four communication types (**H**aptic-social, **I**ntellectual, **V**isual, **A**uditive) were linked with presentation techniques used in exhibitions – such as typical displays and accompanying programs.

We used the data from a questionnaire survey conducted in 2015. The questionnaire included thirteen questions, we used two of these for this article; the questions regarding the types of display and the accompanying programs. In total, 203 Czech museums responded. According to the official statistics there were 486 museums in 2015. We thus surveyed almost 42 % of Czech museums.

**Results:** We found out that Czech museums' displays and accompanying programs are most suitable for the **I**ntellectual type (31.3%) and the **V**isual type (32.3%). The displays and accompanying programs are less suitable for the **H**aptic-social type (17.6%) and the **A**uditive type (18.8%). The results regarding the innovation status of the museums were not affected by the size of the museums in question.

**Conclusion:** The work sets a baseline for monitoring the level of innovation in Czech museums. We identified the need to consider both by-whom and for-whom the displays and activities are created. Also, possibilities to better fulfil the museums' function lie in better accommodating of the Haptic-social type.

**Keywords:**

Museum Innovation, Exhibition Design, Accompanying programs, Individual Communication Types

**Background and Purpose**

Museums are important for the society. They help people to understand the world around them, provide new experience through participation in different activities, and allow to explore new topics. They present the world which had disappeared centuries ago but is still present in our contemporary ways of thinking. Museums also prepare people for the future (Tanner et al., 2005). Fulfilling these functions requires a long-term strategy, consisting of many activities. Nevertheless, an universal way to fulfill museums' diverse functions does not exist. Each institution must find its own specific role, vision, purpose and a way to be relevant for the specific audience.

Museums' main and most visible communication platform are the exhibitions. Furthermore, the accompanying programs are supposed to cover specific or advanced topics for diverse audience, ranging from laymen to experts. Visitors like to be in the middle of an action and want to absorb meaningful content prepared to meet their individual needs and preferences (Simon, 2010). Therefore, the unique learning potential is the object based learning (Vayne, 2012), which can be manifested through accompanying programs.

The history of museums, in other words the history of systematic object collection, begun about 3 000 years B.C. in the Ancient Egypt. Over time, the phenomenon of collecting has changed and passed several stages. In the 19<sup>th</sup> century what we perceive as a modern museum was born (Holman, 2010). The characteristic trait of the modern museums was the focus on the objects themselves, and on the scientific and systematic development of the collection.

The last few decades of museology show two fundamental shifts. The first of these turned attention from the object to the observer. Consequently, the exhibitions started to be *for someone* not only *about something*, and museums started to be visitor-centered (Polly and Janet, 2013). The implementation of the idea of visitor-centered museums gradually resulted in the second shift. The visitor has transformed into a collaborator, and as a result the visit is associated with ideas of *dialogue, partnership, equality, openness, interpretation* etc. This change requires re-definition of museums' essential characteristics, such as their expert authoritative nature (Simon, 2010). This entails innovation. Furthermore, contemporary museums also compete with other leisure activities, which exerts economic pressure to develop engaging activities (Camareroa et al., 2014). Innovation is also needed in order to attract visitors or keep them interested.

## **Innovation in Museums**

There are various ways of applying innovation in contemporary museums. Some museums started to innovate the exhibitions by engaging multimedia, technological displays and interactive activities. However, others returned to conventional displays (Sklenář et al., 2017) in order to highlight the traditional purpose of museums – observation of authentic objects (Midgley, Henderson, 2005). According to Camarero et al. (2014) developments in museums are linked with the “economy of experience” where experience is defined as “memorable events that engage each customer in an inherently personal way”. Personal engagement puts great demands on the museum and results in the necessity to innovate.

Innovation in museums can be divided into two categories. First, the innovation associated with exhibition design. Innovative designs include diverse displays and accompanying activities used in order to develop a long-term relationship with visitors, who return frequently, find something new during each visit and are offered opportunities for personal growth. The second type is the innovation in the organizational procedures, management, leadership and interaction with people (Polly and Janet, 2013). Irrespective of the innovation, the museum needs to consider the visitors’ communication style in order to communicate properly. Otherwise it is not possible to create the information environment described by Camarero et al. (2014).

## **Communication Types**

Communication types play an important role in many fields, such as business, art, marketing, or medical services. They are also important for museums. Theories of communication types have their foundation in psychology, pedagogy and also in neuro-biology. The theories built on the idea that we get information through all of our senses and that we code, execute and combine information in our minds in way based on a unique pattern of thinking (Knight, 2009). The scholars provide multiple ways of dividing individuals into communication types. Neuro-linguists, like Knight, divide people into three main categories - visual, auditive and emotional. On the other hand, Vester (1999) defined four or five primary communication types: a verbal, haptic, visual, auditive and possibly communicative type.

Using the methods of addressing the individual communication types is important in school or other places of learning, such as museums. Consequently, the employees of museums should consider the needs of the individual communication types and exhibitions should be presented differently. Besides, other aspects like the subject, environment and current emotional state are also important for learning. However, according to Vester we need to ask if our learning environments are designed for different communication types.

## **Purpose**

Consequently, the aim of this study was to analyze how displays and accompanying programs in Czech museums respond to diverse communication types. In order to address this question, based on Vester (1999), Knight (2009) and knowledge about museums, four communication types were defined: 1. **Haptic-social** type 2. **Intellectual** type 3. **Visual** type 4. **Auditive** type (see the definitions below).

## **Methods**

### **The Context of the Czech Republic**

This paper describes the situation of Czech museums in 2015. Current state of Czech museums has its roots in the political and socio-economic development of the 20<sup>th</sup> century. In 1946 there were about 360 museums with approximately 4 millions of specimens. During the 1950s many museums were affected by the Communist Party propaganda and historical facts were falsified. During the period of “Normalisation” (1968-1980) after occupation by Russian army, Czech museums began to stay behind the European scene, especially from technical and material point of view and in providing services to the visitors. Meanwhile, the number of objects increased to about 60 millions in 1989, which is 15 times more than in 1946. After the fall of the Communist regime in 1989, the Czech museums started to deal with the heritage of previous decades and to form new attitudes in a democratic society (Žalman, 2002).

### **Survey Methodology**

We used an online quantitative survey (<https://goo.gl/3auEyj>), released on 6<sup>th</sup> June 2015. The museums were invited to participate via e-mail. The email addresses were taken from the list available on the website of Czech Association of Museums and Galleries (<http://www.cz-museums.cz/adresar/>). The list consists of about 800 contacts but only 500 of these belong to museums. The remaining contacts belong to other institutions: monuments, zoos, information centers, or university departments. Initially, 109 completed surveys were received. However, the aim was to receive at least 150 responses. Therefore, reminders were sent out in November 2015. The surveys should have been filled by the employees responsible for the exhibition.

The questionnaire consisted of 13 questions, five questions about the institution (number of employees, the main category of visitors etc.). The rest was focused on exhibitions, accompanying programs and online communication. Questions 1 to 4 were used for this purpose. Question one asked about the types of objects

and displays. Question four focused on the types of accompanying activities. The data were anonymized and analyses programmed in Python.

### **Displays and Accompanying Programs in Relation to Communication Styles**

We linked each type of display or accompanying program with communication style(s) it targets. Each display and activity could be suitable for several communication types and was based on contemporary practices in museums. Classification and definition of each communication type follow.

1. **Haptic-social type:** learns best by doing things, needs to touch, feel and become deeply involved in the activity. Needs enough time for practical testing and for appreciating the sensation. Likes to share knowledge, cooperate and learn from other people. Needs to feel accepted by others. The atmosphere of the learning session and sense of safety is extremely important for them.

Museums displays and activities for the **H** type:

- Music: Adds atmosphere, acts on emotions.
  - 3D objects: Hands-on activities allow for sensory experiences.
  - Visit based on a narrative story with main character: Visitors can identify with and experience the topic through the character.
  - Games: co-operative games in particular fulfill the social needs.
  - Workshops: Allow for social engagement and involvement in the activity.
  - Family programs: Opportunity to share intergenerational experience and “be together”.
2. **Intellectual type:** Has well developed abstract and conceptual thinking. Can concentrate for long time (unlike the other types). Absorbs information presented in logical structures, such as charts, numbers, tables. Is good in analyzing texts, likes specific information. Likes identifying how particular parts are connected in logical way. Learns well independently, without a partner.

Museums displays and activities for the **I** type:

- Information panels: Panels include text, charts and structured information.
- Handed-out texts: Structured information and facts.
- Visualization: Often presents logical or chronological data.
- Comics: Stories divided into parts with logical order and detailed information.
- Touch screens: Allow independent learning, usually contain text, pictures, and detailed information.
- Games: quizzes and logical games that can be played individually.

- Lectures and discussion: Lectures are structured and presented by an expert. Discussions engage abstract thinking.
  - Working sheets: Frequently contain logical steps and allow analytic exploration of the topic.
3. **Visual type:** Thinks in images, likes an image overview of the topic. Details can be too disturbing for them. Thinks fast and creates an image in their head. Is very creative but may make a false image of reality if not provided with good input information. Likes different colours, underlining, or different fonts for each part of text or information, and dynamic, expressive exposure to information. Is not particularly patient, needs engaging activities.

Museums displays and activities for the **V** type:

- Information panels: if they contain images and charts.
  - Video: provides a visual image of the situation.
  - Visualisation: Ideal for this type, especially if visually engaging.
  - Comics: Information is provided by pictures.
  - Touch screens: Provide images, are dynamic and engaging.
  - 3D objects: Provide overview and visual examination of the topic.
  - Videomapping: Immersive display with imaginative pictures.
  - Working sheets: Can be graphically rich and engaging, dynamic activity.
  - Authentic objects: Are provided for visual examination.
4. **Auditive type:** Prefers audio information sources. Does not need to make notes; easily remembers the heard information. The **A** types are able listen longer than the other types and they also like speaking. Doing other things while listening is disturbing for them and results in worse recalling of information. The noise level is important for the **A** type. They usually need quiet environment or music of their choice.

Museums displays and activities for the **A** type:

- Audio: Spoken commentary.
- Music: Allows engagement of the auditory system.
- Video: Provides information in speech.
- Lecture and discussion: Give opportunity to listen and speak.

## Results

After removing the duplicates, the sample included responses of 203 museums. In order to examine whether the research is representative, the sample was compared with official statistics of the National Information and Consulting Centre for Culture (NIPOS). We chose the number of employees as the factor of comparison because human resources are crucial for the institution's management. Larger institutions are more likely to have an innovation, communication or

educational specialist and are thus more likely to include displays and activities for diverse communication types. We divided the institutions into small (1-10 employees), medium (11-25 employees) and large institutions (>26).

According to the NIPOS statistics, there were 486 museums in 2015 (NIPOS, 2016). Our sample is therefore quite representative (Chart 1). In both samples 65 % of the museums are small. In the NIPOS sample medium museums constitute 16 %, as opposed to the 17,3 % in our sample, and large museums constitute 18,9 % as opposed to the 17,7 % in our sample. The major target group of visitors in all the museums were school groups and tourists.

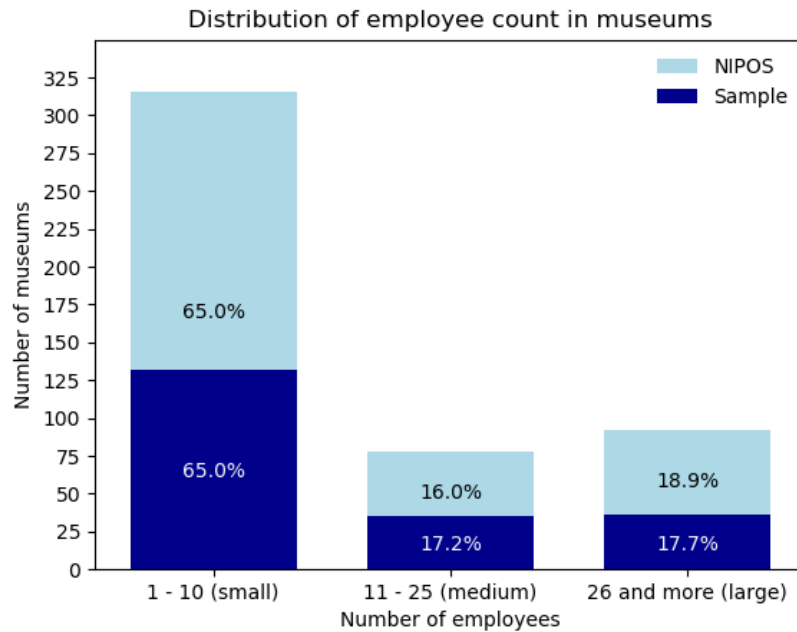


Figure 1: Distribution of employee count in museums

The respondents could select multiple options in their answers. Thus, they marked all the types of displays and accompanying programs used. All the reported types were counted, including the authentic objects, supplemental displays and events. We presumed that an ideal museum would equally respect all the communication types and would have 25% of displays and activities for each of the four types. Our examination (Chart 2) showed that Czech museum's displays and accompanying programs are most suitable for the **I**ntellectual type (31.3%) and the **V**isual type (32.3%). The **H**aptic-social type (17.6%) and the **A**uditive type (18.8%) are less addressed by the displays and accompanying programs. We also examined the distribution in a subset of museums according to the following factors – size (small, medium and large museums) and innovation

status (modernized museums, small modernized museums). The distribution did not significantly differ in these analyses. Classifying certain types of displays and accompanying programs can be inaccurate and the distribution may be influenced by the most common category of authentic objects. Therefore, we reanalyzed the data without the authentic objects. Subsequently, the **I**ntellectual type was the most addressed (34,3%). The **V**isual type was offered fewer exhibits (25,8%). The **H**aptic-social type (19.3%) and the **A**uditive type (20.6%) still had a substantial amount of activities available.

Representation of preferred communication types in museums

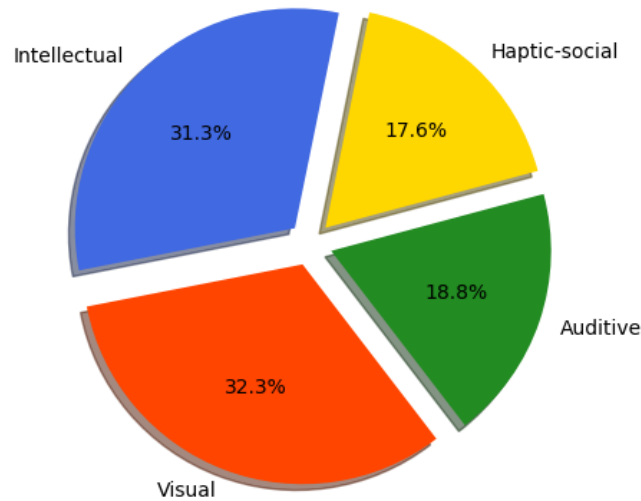


Figure 2: Representation of preferred communication types in museums

## Discussion

This paper examined to what extent the visitor's needs based on their communication type are taken into account in Czech museums. The presented work is the first original research of this topic in the Czech Republic. All the communication types were represented, irrespective of the size of the museum or innovation status. Perhaps unsurprisingly, the most represented communication type in museums' displays and communication programs was the **V** type (32,3 %). However, this result was influenced by including authentic objects, which were the most common type of display, in the analysis.



Generally, assigning displays and accompanying activities to communication types has its limitations. Above all, we could not consider the specific design, dramaturgical concept and particular goal of each display or program due to data collection via questionnaire. Also we did not include guided tours, which were considered a traditional activity which can be reserved on demand, in the survey. Thus we might have underestimated the activities for the **A** type, currently at 18,8%. Besides, authentic objects may be hard to understand because many specimens have lost their primary function (Šobáňová, 2014; Šobáňová and Lažová, 2016) and visitors have no idea what they are watching (Šebek, 2010). Visitors can only make superficial observations regarding size, value or other properties. Such objects are especially challenging for the **I** or **H** type if touching objects is not possible, nor detailed information is provided. In such cases, the object is a source of information only to the advanced visitors or experts.

The **Visual** and **Intellectual** types were the most common. However, it is possible that the observed distribution does not reflect the visitors' needs, but rather the employees' communication types. Museums are often managed by **I** types, scientists and experts, and also creative visual individuals. This may influence the exhibition design. For example, Vester (1999) described parallel situation, where textbooks target **I** types and are produced by them. In general, the producers of information are likely to present the information in the form most suitable for them. The potential topic for a future research is to describe the distribution of the individual communication types among the visitors.

Cost is an important factor to consider. Producing a text display is cheaper than producing events or high-tech displays, which need special hardware and software. Text can be created by museum professionals without co-operating with expensive specialists. Based on our data visitors read texts only *a bit*, on a scale *not at all–a bit–middle–significantly–dominantly*. They clearly preferred examining objects and listening to the guide.

Museums may be missing their opportunities by not targeting the **Haptic-social** type more, especially since school groups and tourists are the major visitors and expect engaging experience. **H** was the least represented communication type (17,7 %). However, these types of displays, activities and special visits based on object stories (Vayne, 2012) are a unique opportunity for museums to be different from other leisure activities (Polly and Janet, 2013). Furthermore, all the **H** activities fulfil the current role of museum as described by Camarero et al. (2014) – to engage in personal way, and comply with the principles of visitor as a collaborator or co-creator of the museum life. Also, designing a museum visit based on co-operation facilitates meeting strangers or engagement with family or friends beyond the usual. This leads to personal growth and improves understanding others, which is important for teenagers and school groups (Simon, 2010).

## Conclusion

This paper examined intersection of museum innovations, design of exhibition and accompanying programs with visitor's needs represented by communication types. With deeper analysis and in context of changing paradigms in museums, it is clear that Czech museums do not fulfill the needs of the **H**aptic-social and **A**uditive types. The constraints to meeting these needs should be examined in the future research. In general, the information environments should take into consideration the different communication types of the audience and possible favouring of the producers' own communication type when preparing the display.

## References

- Camareroa, C., Garridoa, M. J., & Vicente, E. (2014). Achieving effective visitor orientation in European museums. Innovation versus custodial. *Journal Of Cultural Heritage*, 16(2), 228-235. <http://doi.org/10.1016/j.culher.2014.05.006>
- Holman, P. (2010). Dějiny sběratelství a muzejnictví. In M. Buriánková, A. Komárková, & F. Šebek, *Úvod do muzejní praxe: Učební texty základního kurzu Školy muzejní propedeutiky* (pp. 21-68). Praha: Asociace muzeí a galerií České republiky.
- Doering, Z. D. (2010). Strangers, Guests, or Clients? Visitor: Experiences in Museums. *Curator: The Museum Journal*, 42(2), 74-87. <http://doi.org/10.1111/j.2151-6952.1999.tb01132.x>
- Knight, S. (2009). NLP at Work: The Essence of Excellence (3.rd ed.). London: NB.
- Midgley, C., & Henderson, M. (2005). Museum peace after the Sharp shooting? [Online]. *The Times*. Retrieved from <https://www.thetimes.co.uk/article/museum-peace-after-the-sharp-shooting-dl55cr2m8kx>
- NIPOS. (2016). Kultura České republiky v číslech: Vybrané údaje ze statistických šetření. Praha: Národní informační a poradenské středisko pro kulturu. Retrieved from [http://www.nipos-mk.cz/wp-content/uploads/2013/05/Kultura\\_v\\_cislech\\_2016\\_web.pdf](http://www.nipos-mk.cz/wp-content/uploads/2013/05/Kultura_v_cislech_2016_web.pdf)
- Polly, M. K. -C., & Janet A., K. (2013). Creating Exhibitions: Collaboration in the Planning, Development, and Design of Innovative Experiences. USA: Wiley.
- Simon, N. (2010). The participatory museum. California: Museum 2.0.
- Sklenář, J., Sejkora, J., & Macek, I. (2017). Příroda. *Muzeum: Muzejní A Vlastivědná Práce*, 55(Zvláštní vydání), 11-17. <http://doi.org/10.1515/mmvp-2017-0030>
- Šebek, F. (2010). Zpřístupnění sbírek muzeí veřejnosti. In M. Buriánková, A. Komárková, & F. Šebek, *Úvod do muzejní praxe: Učební texty základního kurzu*

- Školy muzejní propedeutiky*(pp. 245-283). Praha: Asociace muzeí a galerií ČR.
- Šobáňová, P. (2014). Muzejní expozice jako edukační médium. Olomouc: Univerzita Palackého v Olomouci.
- Šobáňová, P., Lažová, J., & , kol. (2016). Muzeum versus digitální éra. Olomouc: Univerzita Palackého v Olomouci.
- Tanner, R., & , et. al. (2005). A Strategy for the Museum Sector in New Zealand. Wellington: Museums Aotearoa Te Tari o Nga Whare Taonga o te Motu, The Museums of New Zealand. Retrieved from <http://www.museumsaotearoa.org.nz/sites/default/files/strategy.pdf>
- Vayne, J. (2012). Wonderful Things: Learning with Museum Objects (2nd ed.). UK: MuseumsEtc.
- Vester, F. (1999). Myslet, učit se... a zapomínat?. Plzeň: FRAUS.
- Žalman, J. (2002). Historie českých, moravských a slezských muzeí a galerií [Online]. Retrieved November 28, 2018, from <https://www.cesonline.cz/arl-ces/cs/ces-historie/>