

English Summary

Objective: The present study is a qualitative supplement to the survey of the Institute for Museum Research on museum education data for 2017 (IfM, 2018), which was carried out in 2018 again with the "Special questionnaire on museum education" as part of the overall statistical survey. Since 1987, this questionnaire has been used to systematically record the educational framework and activities of museums. Care has always been taken to adapt and expand the questionnaire in line with the results and the current discourse, while at the same time ensuring that the results remain comparable. For this reason, in the most recent "Special questionnaire on museum education" for the first time the question concerning Apps as a download was included.

A total of 265 museums from the 3.723 museums that provided information on museum Apps answered the question positively. But where and how are the mobile and digital possibilities used to enrich education and communication in the analogue realm of the exhibition space with new forms of dialogue and exchange? This formed the core question of the present study at the interface between analogue exhibition and mobile digital media. The advantages and disadvantages, or rather the limits of museum Apps are the subject of the present study.

Methods: Of the 265 museums with positive responses to the "App as download" question, 126 museums were selected (*Ifm-list*) as examples for in-depth research and the results were compiled in a synopsis (p. 45). In order to close systematic gaps in the data collection, a second group, the so-called *Z-group*, was formed in addition to the museums listed on the IfM list. The *Z-group* comprises 64 museums for which no information concerning Apps could be found on the *IfM list*. A total of 190 museums was thus included in the synopsis which provides the researched information on museum Apps in alphabetical order of the cities. For the museums on the *IfM list* the synopsis also provides the number of visitors and the museum category to which they belong. These criteria were intended to ensure that the exemplary selection of museums was made in such a way that museums of all museum categories and with different sizes regarding the numbers of visitors were represented (Chap. 2.1). After a qualitative analysis of the additional potential in communication (Chap. 2.2) as well as the application options (Chap. 2.3), the qualitative (and also technological) spectrum in the use of museum apps should be analyzed in a differentiated form by means of supplementary interviews and the description of case studies (Chap. 3).

Results

- (1) The synopsis and the quantitative analysis provide an example of the current status of the use of Apps in museums. This has been researched to varying degrees and in various forms in small, medium-sized and large museums (grouped according to the number of visits, Table 2.1.1) of all museum categories and as a result supplements and modifies the data collected by the Institute for Museum Research (IfM). Building on the results of the IfM questionnaire, the web research brought a clearer picture on how museums use Apps today. We assume that the disparate findings result – among other things – from different definitions and interpretations of the question, from the survey circumstances and/or from the rapidly changing technology in a dynamically growing field. This assumption is supported by the results of the *Z-Group* in Table 2.1.1 as well as Tables 5.1.5 and 5.1.6, which suggest that definitions of Apps vary greatly.
- (2) The qualitative analysis of the Apps and their components (Chap. 2.2), the interviews and the case studies (Chap. 3) highlight the new communication and exchange qualities of an App, but also draw attention to its framing conditions. Thus, the potential from a museological as well as a museum educational perspective could be illustrated: be it in the question of interpretive access to the objects of an exhibition, be it the participatory possibilities of the medium, which is particularly attractive for teenagers and young adults. Digitalization has made possible the advancement of accessibility in particular, rather than its (still largely untapped) advantages for integration.

- (3) Furthermore, the framework conditions include the App variants, which produce a heterogeneous picture and correspond to the dynamics of technological development: In addition to the probably better-known – and often criticized – native App, other variants, even cheap or autonomous ones, became visible for both large, medium-sized and small museums, be they progressive Apps, the expansion of general web App solutions, or the different variants of App frameworks (Chap. 2.3).
- (4) In a certain sense, the present study reflects the beginnings of a new era, which manifests itself in the interviews and case studies not only in terms of terminology, but also in the fact that many projects could be realized only on the basis of funding initiatives or special projects. The future of a museum which is truly open to the public will probably (and above all) lie in a combination of real objects and digital media which is attractive to visitors. It would therefore be a welcome development if the funds that currently flow from special funding pools were to be made more permanent.

Finally, it should be noted that this study did not focus on the analysis of a digital strategy for museums (Chapter 1). Such a strategy goes beyond the educational potential presented here: for example, the digitization of the collection is a task for curators and is also part of the responsibilities of marketing. It is therefore an integrative task which, due to the digital transformation of our society, represents a qualitatively new challenge for museums as well.