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Small museums designing new visitor experiences: needs, limitations and opportunities

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ABSTRACT

In this article, we investigate how small museums running on volunteers deal with the challenge of innovation given that the future is becoming more digital. From the literature, little is known about the strategies and practices for designing innovative visitor experiences in small museums and about the skills needed for doing so. In particular, we were interested in understanding how professionals working in small museums design experiences that mainly appeal to and engage a younger public and how digital innovation can play a role in both attracting and keeping such audiences engaged with the museum. Our most important conclusion is that the question of "how to innovate" is misplaced and that small museums rather need to capitalize on the strong tie with the community they serve. Only in this way can they lower the threshold to access and connect to a broader public that is younger and more diverse.

Introduction

With very few exceptions, like the extended body of literature produced by the meSch project (Ciolfi et al., 2015; McDermott et al., 2013; Petrelli et al., 2013), very little is known or studied about the strategies and practices, the requirements, experiences and expectations of museum professionals in innovating when designing museum visitor experiences. This knowledge gap is particularly felt when it comes to museum professionals working in small museums that are mainly run by volunteers, even though innovation is claimed to be important for these museums to attract new, and possibly younger audiences (e.g. van der Laan, 2017).

In this study, we address the struggles many small museums in the Netherlands are dealing with, in their attempts to innovate and reach new (especially younger) audiences. We interpret small museums in the Netherlands as museums that function on the basis of the ICOM definition of museums,[1] have an annual number of visitors of up to about 15,000 and are mainly run by volunteers. We are particularly interested in understanding how the volunteers that run these museums deal with issues of *innovation*, and of attracting new audiences if they want to remain relevant (Simon, 2016). The assumption seems to be that digitally savvy audiences like Gen Z and the younger generations will only be interested in

museum exhibits or activities that are technology-enhanced or empowered (Neuhofer et al., 2014).

In the Netherlands, about three-quarters of small museums are history museums (Museumvereniging, 2018), and they are usually based on a very specialized collection (e.g. craftsmanship such as carpentry or distilling liquor, regional history, resistance during the war, a specific monumental building, such as an old farmhouse, a water tower, etc.). Such museums can count on only very limited financial resources (e.g. often an annual revenue of less than about €75,000), which they mostly get from their embedding municipality (Museumvereniging, 2018). These limited financial resources are not enough to cater to the innovation that is felt necessary by the museum staff to keep them on par with the bigger ones. Because small museums are usually very well rooted in the local community around them, they can rely on a broad base of volunteers who help them not only in their daily management (van der Laan, 2017) but sometimes even financially by means of a so-called *vriendenkring* (circle of friends).

What we believe is missing in the discussion on innovation in smaller museums is a clearer view on the museum professionals' perspective, on their real needs and skills. In such museums, the spectrum of competencies is less broad and rich in comparison with the bigger museums because the amount and diversity in personnel are more limited. In small museums in the Netherlands, the paid staff often amounts to zero, or only a couple of professionals having a mainly managerial role. This observation brings with it the need to develop a participatory approach to designing exhibits and activities for the visitors and to become creative and innovative, also, though not only, through the use of technology that directly caters to the specific needs of such museums.

With this article, we intend to contribute to this discussion from a design perspective. In particular, we will address the following research questions:

(1) What characterizes small museums (their exhibits and activities, their staff and their current visitors)?
(2) For a participatory approach to innovation, it is important to understand: what motivates people to volunteer for the museum? What is their perspective on current and desired visitors? What attempts at innovation have already been undertaken? What were the factors that determined their success?
(3) Based on the insights gained through the previous points, how can small museum professionals be helped to design such experiences for new and existing audiences?

In doing so, we see our contribution to the museum domain in:

- Bringing insights into the practices and needs of small museums running on volunteers
- Presenting simple principles that volunteers can use for developing ideas for new exhibits and activities and that have the potential to attract new (and younger) audiences.

The article is organized as follows. We will first look at current design practices adopted by museum professionals and at how these have been approached in design-oriented literature. We will then discuss our own approach and results. We will ultimately derive insights into how museum professionals from small museums can be helped in designing visitors' experiences for new and existing audiences.

Small museums professionals' skills and design practices

In her editorial for the journal *Curator*, Laura-Edythe Coleman (2020, p. 9) points out that the museum "field still lacks a substantive body of research into the practice of museums" and therefore advocates for the urgency to hear the voices within the field of those who have not yet been heard. This is what our paper aims to contribute: to give voice to those museum professionals who are usually less (or not) heard because they work as volunteers, specifically those in small museums. They constitute the core of the staff of such museums and are responsible for their functioning, and yet, their needs and practices are not adequately discussed in most design-oriented literature we could find. We concluded that there is generally less interest in their design practices because the smaller scale of the institutions they represent and the specific ways in which they are managed, makes such practices less "scalable" and usable in bigger museums. However, small museums have their own specific assets: they are much more tied to the communities they serve than bigger museums, and this is precisely what the bigger museums could learn from their strategy.[2] Precisely for this reason, in countries like the US, committees of small museums staff seem to be common practice (like the network of small museum administrators and workers),[3] to "promote the significant role of small museums as educational centers, repositories of our national cultural heritage, and organizations committed to quality of life for their communities." However, this is not the case in the Netherlands. In the Netherlands, small museums fall under the responsibility of regional heritage institutions. The focus of these institutions differs per region, with some addressing practices, innovation needs, and the daily working of small museums more directly than others.

On the topic of co-designing visitors' experiences with museum professionals, the European project meSch has produced an extensive body of literature (Ciolfi et al., 2015). In their analyses, the meSch researchers have involved professionals from different museums (from science and technology to art and literary museums) across European countries, with different competencies and roles within their institutions. However, these were all working in middle-sized museums (Maye et al., 2014). The focus of their research was explicitly on understanding how these professionals could be involved in designing interactive exhibitions based on "a better understanding of their strategies and aspirations" (Maye et al., 2014) when creating them. The focus lay on their use of technology also in the absence of specialized technical knowledge. Interviews with 23 professionals were conducted. From them, the meSch researchers could extract five relevant themes in designing interactive exhibitions, their understanding of and experience with technology being the underlying and connecting element across those five themes. Remarkably, the professionals participating in this study admitted that technology was not their starting concern when designing exhibitions but a possible "nice-to-have" addition once this had already been conceived. This is in line with findings reported by Calvi and Vermeeren (2024) from their interviews with design agencies that are known for their portfolio in applying new technologies to museum experiences, also internationally. For some of the professionals in the study of Maye et al. (2014) technology was primarily perceived as an easy and successful means to get to higher visitors numbers. From this study, we also find it important to report that for some of the professionals involved, being able to handle the technology themselves gave them a higher sense of

ownership and authorship and therefore also of control, not only over the content of the exhibition itself but also over its design.

A major point of difference between the research carried out in meSch and our own described in this article is that the museum professionals involved in the meSch research were not volunteers, which means that there is an important knowledge gap to be filled, as we do not know how museum volunteers deal with innovation. However, other than meSch, not much more research is found in design-oriented literature on the topic of the needs of museum volunteers in their design practices and on how they could be supported in this, beyond acquiring some information literacy skills (as in, for example, Marty, 2004).

On the topic of design needs and requirements, Salgado (2013) analyzed the failures of exhibition participation and concluded that these could be easily overcome by allowing the museum community to be better represented during the exhibition design process. However, this needs analysis does not refer specifically to small museum professionals. Their needs are however well discussed in a study by Laine-Zamojska (2012) on small museums in Finland. She reports that "small institutions are run collectively and provide an important social context for the people involved in museum activities. In these institutions, the focus is not on collections, but on social aspects, personal experiences and memories." This is why empowering professionals from small museums may require a different set of competencies than the ones adopted in medium to bigger-sized ones, i.e., one that recognizes and caters to this collective management of the museum activities, that brings visible and usable results in a reasonably short amount of time and that honors the social character of such activities. This is possible when one can "understand local structures, create relations with the museums' representatives, and identify the factors necessary for potential implementation" of any solution adopted (Laine-Zamojska, 2012). In other words, for effective solutions for small museums, a better understanding of their situation is needed, and finding solutions will require close collaboration with the small museum professionals themselves. A pilot project with 10 small museums set up in the US[4] reveals that small museums deliver tremendous work in their local communities and are very creative in achieving a lot with the little resources they have at their disposal, but time (or the scarcity thereof) remains an issue. Their strength is in building partnerships, and this is precisely what enables them to do a lot, and to innovate, even with the limited time and resources that they have. This is also what makes their work very sustainable. Additionally, in the US initiatives such as the Small Museum Toolkit (Catlin-Legutko & Klingler, 2012) have been adopted, while in Europe, and in the Netherlands specifically, we know of no such initiatives.

Currently, in Europe, various initiatives in the form of transnational projects are running or have just been finalized, mapping the skills and competencies needed by museum professionals to build capacities and resilience for future-proof innovation (e.g., CHARTER and Mu.SA projects). With the European Year of Cultural Heritage celebrated in 2018, innovation, also interpreted as digital innovation, has become one of the four pillars on which cultural heritage rests and it has also been included in the 2030 Sustainable Agenda. However, a recent report published by CHARTER[5] on this notes that innovation in the sector is still missing. What emerges from these analyses is the need to upskill the digital competencies of all cultural heritage professionals, including museum professionals. While all these initiatives do not address small museums specifically, they

reveal a basic and fundamental need across the whole cultural sector that is considered paramount to guarantee its sustainability.

Our approach

Our approach aims to gain a better understanding of the needs and skills of the volunteers running small museums and of the particular status of the small museums in The Netherlands. The basic circumstances such museums find themselves in due to their organizational structure (i.e., the fact that they are mostly run by volunteers, and financial limitations) allow us to identify some factors in their functioning that lie at the basis of their practices in developing their exhibits and activities. We believe that these basic factors are also relevant to better understand the needs and requirements for designing visitors experiences for other museums.

Our study involved several small museums in the Southern and Western part of the Netherlands. It was prompted by a series of discussions with regional heritage institutions, which work in close connection with the museums. Regional heritage organizations had recognized the difficulty small museums have with regard to innovation and were looking for solutions to support their work. As a result of these conversations, a suggestion was made to conduct research on how to connect a younger audience of Gen Z to these museums, so that their heritage, their collections and their stories would not be lost and could be preserved for future generations. This seemed a viable way to introduce the topic of *innovation* in small Dutch museums.

We approached this problem in several phases through various activities. We started this investigation with a few student-led design research projects (Study 1) that explored what characterizes small museums, and what is needed for small museums to be considered interesting for Gen Z. This will be discussed in the section "What characterizes small museums?" These design research projects led to general design principles that small museums could use in envisioning innovations. These studies were followed by interviews with a selected number of small museum professionals (Study 2). These were intended to get a better view of the internal functioning of small museums, in particular their intrinsic limitations and the opportunities they can embrace to become innovative. This was done by discussing with these professionals their motivations for volunteering, their perspectives on current and desired visitors, and their earlier attempts to innovate. The rationale behind this study was that any intervention aimed at helping museums to innovate should not only be addressed to volunteers but should also cater to the volunteers' perspective, including their needs and their skills. This study is discussed in the section "What are the limitations and opportunities to innovate for small museums?" The question of innovation is however also very much linked to the ultimate users, which we thought would be a young public of Gen Z, as they represent the next generation of museum-goers and the ones who will help preserve and pass on the heritage collected in these museums. To our surprise, the main conclusion of these interviews was that small museums not only do not address young visitors directly at all (unless young children but only in the context of family or school museum visits), but, more importantly, they assume that their museums are not relevant enough to young audiences to put effort in addressing them. However, from the design research projects and the interviews, we also concluded that there is potential for *creating* relevance to young audiences and we

realized that we needed to explore how to help the volunteers in these small museums realize this potential. In the last section "How to help small museum professionals design new innovative museum experiences?" we discuss a workshop conducted with a selected number of small museum professionals, in which they tried to apply the general design principles that resulted from Study 1, taking into account the learnings from Study 2, and facilitated by templates to be used as aids in the workshop.

Study 1: what characterizes small museums?

In order to understand how small museums can be helped to innovate, we needed to understand what characterizes them beyond the formal ICOM definition that we mentioned earlier. And, in particular, what a younger audience of Gen Z recognizes as typical for small museums so that we could leverage these elements for innovation.

To this end, we initiated several design research projects with students (in the Gen Z age), in collaboration with two Dutch provincial heritage institutes that have as one of their roles to train museum volunteers and support small museums. Two of the projects were done as MSc final projects conducted in the Master Design for Interaction at Delft University of Technology: One focusing on solo-travelers, the other on teenagers, both with the goal of *connecting* these audiences to small culture-historical museums. The third project was a Bachelor final project at Breda University of Applied Sciences, aimed at studying requirements for an online platform for small museums that would *appeal* to young audiences and that would *keep them connected* to the small museums.

Based on a list of 13 small museums compiled by the provincial heritage institute Erfgoedhuis-ZH, observations were done in these museums, focusing on staff, visitors, location, collection theme, and presentation. There were informal conversations with 20 museum volunteers as well as semi-structured interviews with 6 of them. Additionally, during the period of observations, conversations, and interviews, the 13 small museums were sent an extensive survey about their staff, visitors, income, goals, problems, needs, and wishes. Nine of the museum professionals responded to this questionnaire, of which two were from the same museum. Based on this feedback, several characteristics that typify small museums in the Netherlands were identified: (1) authenticity and location; (2) very specific collection theme; (3) presentation; (4) passionate staff; and (5) current visitors.

Authenticity and location

What was observed as an important asset of small museums is the authenticity of the experience they provide in combination with their location, often in rural areas. Small museums are often located in villages that are considered typically Dutch and are often bound to the area or building they are in, as these often form part of their heritage. The authenticity of the experience and of the location is what seems to typify small museums the most, as confirmed by our further analysis (Study 2 below). This is an issue of "know thy user," with small museums not realizing that they should successfully try to "learn about their users."

A downside of being located in authentic but rural areas is that, in many cases, these locations do not have optimal connections to public transport or main roads. The

difficult reachability of these small museums, and the unequal balance between effort (as travel time/visit time ratio) and pleasure/meaning-making are among the insights that inspired us to take into account the visitor journey (e.g., trigger-engage-consolidate-relate; cf. Vermeeren & Calvi, 2019). This need for a visitor journey view was one of the conclusions from Study 1.

Very specific collection theme

Small museums usually focus on very specific topics. They are mostly historical. Their collections are usually connected to the historic significance of a building, or to the specific region they are in. Although this makes them authentic, these topics are often too specific to appeal to a broad audience (van der Laan, 2017). As five of the museums that took part in the surveys indicated, attempts are made to spark the interest of potential new visitors by having temporary exhibitions next to their standard exhibition. These are often, though not always, closely related to the original museum collection, as in the museum De Koperen Knop (a museum about the region in which it is situated) where they presented an exhibition about the history of Playmobil®.[6] Another way is by presenting their original theme from a different perspective to help people change current (stereotypical) opinions about it. An example of this attempt is the Museum Historisch Joris, which hosted a psychiatric institution. As a volunteer put it:

> We strive to present the history of the Sint Joris Guesthouse and the Psychiatry in Delft and to connect this to our offer of art and culture. In this way we hope to contribute to take away the taboo around psychiatry.

Temporary exhibitions are also a way of re-attracting locals who have already visited the museum once but have no reason to do that again. This again triggers the visitor journey design principle mentioned above.

Passionate staff

The staff of these museums have an intrinsic interest in the museum content, are very knowledgeable about the subject and find its preservation very important ("We are not the average museum, but we have put our heart and soul and (a lot of private capital) into our museum." Volunteer at Stichting Molenaar Oude Tractoren Collectie). Because of this knowledge and intrinsic interest, visitors consider the volunteers as actual experts in that subject. In many cases, the staff would indeed walk around and initiate conversations with visitors when they see they show interest in a certain object. In the interviews, most volunteers indicated that they have the time to work as unpaid museum staff because they are retired, because they have a working spouse or because they are currently unemployed. The museum volunteers we talked to were all over 40 years old and usually closer to 80 years old. A 40-year-old person is considered young at these museums ("We let the 'young people' sit at the desk at certain events." Volunteer at Museum Voorschoten talking about a 45-year-old volunteer). An intrinsic interest in the topic of the museum is not the only reason why people decide to volunteer. Other reasons include their affinity with the specific museum, a wish to connect to other people, or just a desire to stay active after retirement. This immediately makes clear

why younger people are not volunteering at these museums. They have less interest in connecting with seniors, retirement is not an issue and usually younger people do not have working spouses yet ("Our volunteers are getting older and younger inflow is not always easy. We can also not maintain our (regular) opening hours at this moment, because we are understaffed." Volunteer at Houweling Telecom Museum). Because these museums run on volunteers and visitor numbers are very small, many small museums have very limited opening hours – for example, only on Saturday or Sunday afternoons – ("To be open on Sundays would be nice, but unfortunately there are no/ too little volunteers willing to work on Sundays to fill up an entire schedule." Volunteer at Verzetsmuseum ZH).

This observation relates again to the issue of better understanding what visitors want (i.e., the design principle about attractiveness/relevance of museum visits: a nice balance between meaning, engagement and effort; cf Vermeeren & Calvi, 2019) and at the same time points to the need for a better understanding of what motivates volunteers (which is the reason for doing Study 2).

The way of presenting their collection

The most striking thing about many exhibitions in small museums is how they display their artifacts. They seem to put a lot more artifacts within a single space than most larger museums would do. This makes rooms rather cluttered, but this can also have a certain appeal. In some museums, artifacts are displayed in the way they were historically used, like in the Museum "Paul Tetar van Elven" in Delft, where the living room of the artist can be visited. This relates again to the element of authenticity we mentioned earlier which is an important trigger for people to visit such museums. Moreover, this reinforces our earlier claim about the need for small museums to "know thy user."

Even if many small museums are aware of the importance of being digitally present and showcasing their content via websites and social media, they do not do this because of the limited digital skills of their volunteers. More generally, they would rather want visitors to be interested in their content than attract more visitors only to make more money. However, if small museums are not digitally present, they may be hard to find. This consideration emphasizes again the need to design for the visitor journey and to link to design principles about balance: young people expect to be able to engage with interactive exhibits or activities, not only with static information.

Current visitors

Many current visitors already have a specific connection to the subject of the museum ("People who have something to do with carpentry." Volunteer at Timmerwerf de Lier (Traditional carpentry workshop); "Very often they are people who used to work in agriculture and have a sincere interest in the subject." Volunteer at Stichting Molenaar Oude Tractoren Collectie). Opinions differed about attracting other types of visitors. All museums would appreciate more visitors, though some indicated that they found the type of visitors more important than the number of visitors ("Preferably no children, but more youth." Volunteer at Museum Historisch Joris; "Every 'type' of visitor is welcome." Volunteer at Stichting Lichtschip 12 Noordhinder; "We would like to receive some more tourists." Volunteer at

Verzetsmuseums ZH). A few museums indicated that they need more visitors to remain viable since they hardly get any subsidy ("We receive about 125 euros a year in funds, but we're lucky to have our collection and building in lease-lent from the telecom company." Volunteer at Houweling Telecom Museum).

Visitors are mostly adults over 40–50 years of age. However, now and then they also receive other types of visitors, such as young families and school groups ("We also receive families with children in the age group 9–13 years old. The parents of these children are in the age group 30–45 years old." Volunteer at Verzetsmuseum ZH).

These facts add to our claim about visitor journey (being more visible, stimulating revisits) and understanding what visitors are interested in.

Conclusion of Study 1

Based on the analysis of the most recognizable assets of small museums, we could distill the following recommendations to help small museums innovate, which we explain further below:

(1) They should be supported in thinking in terms of visitor journeys, including involving their ecosystems in the visitors' journey.
(2) They should be supported in thinking not only in terms of conveying/showing interesting objects and stories, but also in balancing meaning, play/pleasure/engagement, and reducing barriers to access.
(3) They should be supported in trying to understand what would interest new audiences.

The implementation of these recommendations would require adopting a more holistic view on developing new museum experiences. For the small museums, this may mean a view that leaves the internal part of the museum largely intact. Such a view would have to be based on a collaboration with external parties and on a connection to activities also outside the museum walls, instead of on the capabilities of individual small museums alone or on the actual visit of the exhibition in the museum. In other words, this holistic view would entail collaborating with other (local) organizations and attuning to their activities to capitalize on the synergies. This means capitalizing on an *ecosystem of organizations* to potentially collaborate with in the region, as well as thinking in terms of *visitor journeys* that do not start from visitors entering the museum, but that start from triggering them to come to the museum, traveling to the museum, engaging visitors during the visits, and also thinking in terms of stimulating repeat visits and building and maintaining relationships with specific visitors. The above also implies that museum staff would benefit from thinking in terms of what could make a museum visit interesting and engaging to specific potential audiences: what can be done to make the visit both *meaningful* to specific audiences, as well as *playful* and *engaging* and how can *barriers to access* at all stages of the visitor journeys be reduced for them. This also implies a better understanding of the *interests and needs of potential visitors*. This would be a more holistic approach to museum experience design, than, for example, just trying to improve the quality of presenting each museum's collection.

These suggestions (journeys, ecosystems, knowing your audience, etc.) are commonplace in many commercial businesses, but small museums tend not to be commercial

businesses and do not wish to be so. Thus, to be able to implement such ideas in the world of small museums, a further study was undertaken to better understand the limitations and opportunities for innovation given their specific situation.

Study 2: what are the limitations and opportunities for innovation in small museums?

One of the most striking conclusions from Study 1 was that reaching a younger audience is not an important ambition for small museums, as they are aware that they are competing with more attractive offerings that are available for younger people, like any other form of entertainment. In fact, they are not adopting any *ad hoc* solutions that are specifically targeted at younger audiences, such as being more visible on social media.

In Spring 2018, volunteers from six small museums were interviewed to better understand what the limitations are that prevent them from innovating but also what opportunities could be identified to facilitate such innovation (Spaargaren, 2018). Each interview consisted of two parts: at first, the volunteers were sent a sensitizer booklet, which had the purpose to probe the interviewee to think about the subjects to be discussed during the interview itself. Then, a semi-structured interview followed.

The booklet covered three main topics:

(1) The volunteer themselves: what they do in the museum and why they chose to work as a volunteer.
(2) The museum: what it is about, if and how it has changed over the last 5 years, and how it wishes to further change.
(3) The visitor: who their current visitors are and what their desired visitor would be.

From these interviews, insights were gained on three main topics: their *reasons for volunteering*, their *perspectives on* (*current and desired*) *visitors*, and *earlier attempts to innovate*.

Reasons for volunteering

The interviewees confirmed unanimously what was already identified in Study 1 (Vermeeren & Calvi, 2017): the content of the museum is related to the passion or interest of the volunteers themselves. The numbers of volunteers per museum varies from museum to museum – in this group of small museums, it ranges from 15 to 120 volunteers. They are mostly elderly or retired people, although in this group of museums, one museum has a more diversified group of volunteers and another has only volunteers under 65 years of age. (In response to a question on whether they are looking for younger volunteers, a volunteer from Leiderdorpsmuseum replied: "We have a few, but it is always difficult. I now have a student in history who is here during daytime regularly. Another young person enthusiastically offered to volunteer, because they had nothing to do for 6 months, but never showed up. So, it is difficult to rely on that").

What emerged more clearly from these interviews, though, is that an important reason for volunteering is sociability: volunteering provides opportunities for social interactions, both with the visitors as well as with other volunteers because most of the tasks required in the museums must be performed collectively. This is also in line with the conclusions in

the study by Laine-Zamojska ([2012](#)), i.e., that small museums "provide an important social context for the people involved."

Perspectives on visitors

Half of the museums interviewed have a predominantly older audience, the other half of the audience is made up of families. Four of the six museums also mentioned grandparents with grandchildren as an important audience group. When brainstorming on which new visitors to attract, the first thought of all museums involved goes to primary school children. Teenagers, students and young adults are not seen as a potential audience to invest in, because it is hard for the volunteers to see what kind of interest they might have in their museum content. Basically, they seem to concur that they do not know how to make their museum look relevant enough to attract young people. Clearly, it is difficult for the volunteers interviewed to appreciate how this target group might be made interested or even enticed into their museum. (In reply to the question "Which visitor groups would you like to increase in numbers?" the volunteer from Fort 1881 replied: "I don't know. The young people of today do not really know the war. It was not their war." A volunteer from Kaasmuseum Bodegraven said: "Is the museum interesting for people of 20–30 years of age? A day out. A special arrangement or so. We have an arrangement with a cheese farm and a grand café, we indeed do that. They can have a look at the cheese farm, their kids are there as well to see how cheese is made, they have lunch at the café. They can see how cheese was made in the old days. But that is not interesting to people of 20–30 years old in general, it is only if they have their family with them").

Current attempts to innovate

Most museums have implemented changes over the last few years, including the use of social media. The interviewees however admitted that most volunteers are not skilled enough to use social media and would have to invest more to gain more abilities ("Nowadays more and more is done through social media. It does not yet work as we would like it to work, but we take it step by step. Important with social media is that you have one person who is responsible for it, because now I do it as a side-job, but actually you would need someone who is more skilled in it." Volunteer at Leiderdorps museum; "Social media are needed anyway, also for a younger audience. We have a few people who do a little bit in that. I don't do that myself." Volunteer at Kaasmuseum Bodegraven). Also various play activities were developed although they were mainly aimed at entertaining primary school children during a visit. These activities include a game for the tablet specifically developed for one of these museums, a scavenger hunt (three museums), a photo challenge (two museums), craft projects outside of the museums (one museum), a box in which children can dig up an artifact and experience how it needs to be handled (developed specifically for one museum). Three museums also developed activities related to subjects the children get at school. However, being part of an educational program with schools was perceived as a difficulty rather than an opportunity because of the long preparation required to set up an adequate program for the children and the limited number of schools in the vicinity of the museums involved, not to mention competition with bigger and more renowned museums in the area. (On the question what

would be their preferred target group if they adopted innovation to attract a young audience, a volunteer of Leiderdorps museum replied: "Age category? Primary school, 9 or 10 years old. We are not yet aiming for high school kids, or young adults. In our village there is only one high school, most teenagers are at high school in the city of Leiden. There is a lot of competition of other and bigger museums with programs. You would have to compete with them then"). Also, the use of social media is in fact more something to aim for than a practice already in place, because of the limited digital literacy of the volunteers. Given the profile of most volunteers, any form of innovation that they could consider must be low-key, both in the skills and competencies required. Any form of innovation that also facilitates collaboration among them is certainly to be preferred to strengthen sociability and their feeling of belonging and to share its implementation by emphasizing the collaborative nature of such institutions. Again, this strengthens the urge to recruit new volunteers as a way to effectively start using social media.

Conclusions of Study 2

This study confirmed the need for new audiences, not only to bring in new visitors but also to recruit new volunteers. It showed that the museums have a hard time imagining how to make the museum relevant enough to them, and thus do not engage in trying to do so effectively, even though having more visitors and more volunteers would be beneficial, given that one of the main drivers for being a volunteer in the first place is sociability. Again, helping them gain a better *understanding of what could interest potential new visitors* would benefit them. And having new visitors in turn would be helpful for *bringing in the necessary skills and ideas* needed for innovating their exhibits and activities: if they would manage to get young adults in, this would provide them with extra opportunities to engage in social interactions and share their passion.

Combining the findings from Studies 1 and 2 lead us to conclude that staff at the small museums may benefit from support in the following areas:

- gaining a better understanding of what interests potential new audiences
- thinking in terms of visitor journeys and connecting their offerings to those of an ecosystem of other organizations to collaborate with
- not only thinking in terms of how to communicate interesting facts and stories about their museum and collection; they should be made aware that it is beneficial to think in terms of making these meaningful to their audiences, playful and engaging in a manner that fits them, and in terms of making sure that the effort required to visit the museum or to engage in activities and understand the relevance of the information should be reduced.

To explore how to make museum volunteers aware of the principles identified in Studies 1 and 2 and to explore how the volunteers could be helped in using them for developing ideas for innovations, Study 3 was conducted.

Study 3: how to help small museum professionals design new innovative museums experiences

In Study 3, we conducted a co-design workshop with museum volunteers to explore how to help them with the principles identified in the previous studies. This workshop was

based on a tentative framework that the authors developed based on the literature as well as on the studies above, and which focuses on the visitor journey and on balancing meaningfulness, playfulness and effort (Vermeeren & Calvi, 2019; see below). Additionally, templates for creating visitor personas were developed and workshop participants were stimulated to take other organizations in their network into account during their ideation, for inspiration around visitor journeys.

The framework

The framework we used (Vermeeren & Calvi, 2019) was inspired by the studies mentioned before and was informed by literature from cognitive psychology, experience design and museum studies. It is a framework for designing "relevant" museum experiences. The notion of "relevance" is about discovering what really matters to the visitors and the communities a museum wants to relate to (Simon, 2016). The framework emphasizes that a design process should not only focus on allowing for meaning-making and reducing effort but also on designing to allow the process of meaning-making to be enjoyable in itself. In other words, the framework proposes that one should focus on integrating or balancing meaning-making and playfulness, whilst also focusing on reducing the effort required for meaning-making (Wilson & Sperber, 2004). Additionally, inspired by Simon (2016) who sees "relevance" as a process and by current views on experience design where experiences are seen as dynamic, accumulative processes, in which one can tailor design elements to specific stages of use/experience (e.g., Karapanos et al., 2009), the framework suggests four stages of seeking and growing relevance in time: *trigger* (attracting the interest of potential new visitors by "promising" relevance – in the case of small museums for example attracting young adults), *engage* (living up to the promise of relevance when visiting the museum; focusing not only on learning, but also on effort reduction and playfulness), *consolidate* (consolidating the idea of relevance of the museum by leaving good memories, facilitating return visits; in case of small museums ultimately also to build longer-term connections with visitors, e.g., aiming for visitors to become part of their volunteer base) and *relate* (for maintaining the longer-term relationship with the visitors, and staying relevant for them). The importance of distinguishing these phases lies in the opportunity to focus design efforts on each of these stages of relevance, something that we found is lacking in the practice of many of the small museums we investigated.

The workshop

The workshop was conducted in March 2020, with volunteers from 10 small museums (Figure 1). During the workshop, in a step-wise manner, the volunteers were challenged to develop new ideas for their museums. In each of the steps, the activities to be done were explained and supported by materials such as the templates mentioned above. After a short introduction about the design principles and a reflection on the characteristics of the museum in which they volunteered, the rest of the workshop was split into two subsequent parts. The reflection consisted of filling in a template that invited participants to share characteristics of the museum (such as its history, building, location and environment, collection, mission, etc.). Then, in the first part of the workshop, the

current situation was analyzed and evaluated, using the identified design principles, and in the second part, new ideas were generated with a focus on desired young visitors, again using the design principles. The two parts were supported by cheat sheets, templates, and structured tasks to be performed on flipcharts in groups (groups of two or three in Part 1, groups of three or four in Part 2). The template for visitors contained fields to be filled in, such as type of visitor, a (fictive) quote from a visitor (fictive) personal visitor data such as age, occupation (a.o.), and a field called "about the person." One of the cheat sheets was based on an explanation of the four visitor journey steps, the other on five motivations to visit museums, based on the categorization of identity-based needs by Falk and Dierking (1992).

Part 1. Evaluation of the current situation

The aim of this part was to make the volunteers aware of the extent to which they know their current visitors, their current visitor journey, and the extent to which they believed their current activities were meaningful and engaging and would require efforts from visitors.[7] First, participants were asked to fill in the template for their current visitors. Second, participants were led through the visitor journey with instructions typically starting with explaining each step of the visitor journey (e.g., for the *trigger*-phase: Before considering a visit, visitors should have the impression that it is pleasurable or interesting to visit the museum), followed by a reflective question (such as, again for the *trigger*-phase: "What does your museum currently do to provide people who haven't been there before with an impression of what can be experienced in the museum?"). To support people in reflecting on this question, more concrete sub-questions were given (such as: "Where may people encounter something of your museum? Is the experience of this encounter likely to give them a flavor of what it will be like to experience the museum? Do you think this experience also appeals to your current visitor – see persona?"). A

Figure 1. Volunteers in the workshop creating new ideas for their museums.

similar setup was used for the other phases, namely *engage*, *consolidate*, and *relate*. Participants were asked to write down their responses on flipcharts. Third, people were given an explanation of balancing *meaningfulness*, *engagement*, and *effort* with examples from small museums, followed by reflective questions for each of the three elements (*meaningfulness*: "Put yourself in the shoes of your visitors, what in your museum connects to what they think is interesting?"; *enjoyable*: "What activities in your museum appeal to the visitor and do they find enjoyable to do or experience?"; *effort*: "Are there significant thresholds for visiting or for engaging in an activity (think in terms of understandability, readability, degree of difficulty, the time required, etc.)?"). Participants were asked to post stickies labeled interest (interessant), enjoyment (leuk), and low threshold (laagdrempelig) on their flipcharts in response to the questions.

Part 2. Ideas to attract young adults (Gen Z)

The aim of this part was to inspire the volunteers to come up with ideas for their museum aimed at young adults (Gen Z), again based on personas, visitor journey, and balancing meaningfulness, enjoyability, and effort. Before this, we presented the volunteers with some key requirements for designing for young adults, that had been identified in the design research of Study 1: (a) connect elements of your museum to themes and activities in their day-to-day lives, and tell stories about people; (b) activate them (let them interpret information themselves, rather than explaining everything, make them think, stimulate discussions, let them explore things in a playful way); (c) excite them (diversity of media, make them curious, make them feel as if they are in a different world); (d) do the non-obvious (surprise them with things they don't expect in your museum, don't avoid controversial topics, but give them a place in the museum). Participants were then asked to fill in a persona template for young adults. In the remainder of this part of the workshop, for each step of the visitor journey the volunteers were asked to: (a) come up with a few ideas for activities, exhibition elements, etc.; (b) analyze how each of the ideas would score on meaningfulness, enjoyability, and effort for their persona; (c) converge and further develop one idea for young adults visitors; (d) write down important insights and results on a flipchart. After Part 2 of the workshop, in a plenary session, the volunteers presented their results to each other to discuss them.

Experiences from participants

Of the four stages of the framework (trigger-engage-consolidate-relate), most participants found the first one (triggering, when museums entice visitors) as the least difficult to conceive for their current visitors – all museums have always invested much in this stage – but also as the least interesting one because it is performed by them in a very traditional way, with flyers, emails, local press, school visits. This is also recognized as a low threshold stage for the visitors. In fact, triggering activities is where most museums' current efforts are directed: they are considered extremely important to be able to attract visitors. Next to those just mentioned, they also include open days like the Open Monument Day, weekends at the museum, and Cultural Sundays, clearly very traditional ways of attracting visitors. During the workshop, the framework helped the participants to realize that new triggering activities specifically focused on their desired visitors would be needed, such as creating vlogs or podcasts, or collaborating with festivals, or other organizations in their network.

The actual visit (at the engage stage) runs in fact rather smoothly through established activities: guided tours, individual visits, but with low interactivity, and thus low active participation from the visitor. Our participants realized that this is not the way to engage young adults and consequently to ensure a word-of-mouth effect for example at the end of the visit.

Consolidate and relate are the stages that our museum volunteers admittedly are not devoting much attention to at the moment: they are seen as very difficult to implement, although they recognize that they are both critical for them to maintain their visitors and even to grow. What is considered difficult is the need to be creative and to make sure that their audience (the old, faithful, and the still-to-acquire will feel enticed.

As a result of reflecting on their experience with working with this framework, the volunteers identified a series of challenges for them to address across the four stages of trigger-engage-consolidate-relate. They are summarized in Table 1.

At the end of the workshop, we asked participants to evaluate how useful they found it. From the evaluations we received (9 out of 10 attendees), it clearly appeared that these museums had not been explicitly thinking about their audience before this workshop: who they are, what they expect, what they know already, what they want to get out of their museum visit. It proved to be a difficult exercise for them to have to sketch their current visitor profile. However, the workshop helped them become aware of the importance of such an exercise in designing activities tailored to such visitors. The workshop also made them reflect on their desired future audience and on the different activities they would need to develop for this wider and different spectrum of new visitors. Finally, they came to realize that they too often forget about how *playful* a museum visit can be and should be to strike the right balance between cognitive effort and meaning-making. The four phases outlined by the framework helped them structure and streamline their thinking of what activities to develop focusing on one phase at a time to reach the

Table 1. Challenges as identified by the participants in the design workshop (adapted from Calvi & Vermeeren, 2023).

Challenges identified by volunteers	Underlying need	Remedial actions to be taken
Limited number and lack of diversity of personnel	Need to diversify	Become part of an existing supportive ecosystem Sustainable engagement of both paid staff and volunteers
Lack of digital knowledge and competencies	Need to be better anchored in their local community (including the broader ecosystem around them), so that the museum can become the vehicle to truly represent the community and this, in turn, can cater to the museum's innovation	Upskilling and reskilling Become part of an existing supportive ecosystem Engage with the local community
Lack of financial resources for developing novel activities	Need to innovate	Search for capacity building opportunities in the museum's embedding ecosystem
Difficulty to reach a broader and younger audience	Need to pass on knowledge to the future generations	Optimizing the museum experience through designing its points of engagement according to visitors' needs, feelings, contexts, and mindsets
Lack of visibility and difficulty in (physical) reachability	Need to become more visible and known	Optimizing communication and digital presence

overall goal of creating a meaningful museum visit for their (present or future) audience. However, coming up with ideas for each of the phases and integrating playfulness in these remained a challenge.

Discussion

Analyzing the results presented so far, the following themes emerged in terms of design practice across the three research topics we had addressed:

(1) Small museums do not see technological innovation as their primary concern. In fact, technology seemed to have played a minor role: it is not through flashy gadgets that our participants see the solution to engage visitors. In some cases, these were also not considered in line with the museum's intimate identity. During the workshop, for example, some participants mentioned the use of social media as a possible way to attract more visitors (as was also mentioned in the interviews in Study 2), but this suggestion was immediately mitigated by the awareness that their volunteers have little familiarity with such digital tools. Nevertheless, they are open to innovation in some way. Our impression, though, is that they remain relatively conservative regarding what innovation may mean for them. For example, many of the participants in our studies mentioned social media as a form of technological innovation but had problems envisaging anything beyond this tool.

(2) Small museums do not yet clearly identify and visualize their visitors. They have no notion of the Falk and Dierking model (1992) based on visitors' motivations, for example, nor of the use of visitor profiles. In fact, they are not familiar with either concept. This is in line with the finding in the CHESS project as evidenced by Maria Roussou. In an interview about this project, Roussou (2015) explained that "The visitor studies world has talked about different visiting styles for a long time, but actually making, putting a face on visitors, through the personas, really helped the design team to speak the same language. Usually, when museum people will talk about the visitor, they will talk about a general form of visitor but they may have somebody completely different in their mind. So, when they come together to collaborate, everybody is thinking of their own user (the so-called 'elastic' user) and they are not speaking the same language."

(3) Both in our interviews (Study 2) and in the workshop (Study 3), it became clear that teenagers and young adults in fact do not form the small museums' target audience. The reasons why this target group is not considered important to focus on were highlighted in the interviews by Spaargaren (2018): small museum professionals consider them too difficult to reach, attract and entice into their museums and therefore not worth investing in ("We are already trying to implement many of the suggested ideas (on how to attract younger people), but probably, sometimes we have to simply accept that young adults find other things more interesting than visiting our museum"). If attracting younger audiences is seen as crucial to make the small museums' existence future proof, the challenge is how to help small museums realize the existing potential for creating relevance for such audiences. A workshop like the one we conducted proved to be a viable instrument to help small museum professionals get insights into their potential. And the framework we proposed,

while being only one of the many addressing visitors' experience design and evalu-ation (see in Roppola (2012) for example), succeeded in lowering the threshold to ideating solutions for (present and future) visitors' activities: these were conceived for each of the four phases making up the framework. Thinking in phases or in terms of visitor journey (see conclusions of Study 1 above) instead of looking at the visit as a unified block, helped them also highlight which parts of this journey small museums need to invest in more in terms of both time and resources. It became clear that more is needed, however, to help them create more ideas, and to further develop and implement them.

(4) Attracting younger volunteers would facilitate knowledge exchange between the gen-erations and give new perspectives to the museum, also in terms of technological innovation. ("I have got many new ideas from a younger participant who is clearly better at technological innovation than I am. That is my limitation." A workshop par-ticipant reported in the evaluation at the end of the workshop). A volunteer from another museum mentioned during an interview that he was enthusiastic about having a young intern who helped them develop something with technology and con-cluded, based on this experience, that the only way for them to attract a younger audi-ence is to have younger volunteers. ("Would the solution be to attract young people as volunteers rather than as visitors to the museum? Absolutely, as innovators and as a consequence we would also develop a new affinity with a new target group for the museum." Volunteer at Voorschoten). The question remains of how easy it is for such museums to attract younger volunteers. Among the possible solutions that were identified to tackle this issue (van der Laan, 2017), one consists of looking for col-laboration with organizations that do manage to reach young audiences, like hostels and schools. This could potentially help the small museums further develop and implement ideas such as those generated during the workshop. However, this synergy can only work if there is some kind of coordination among the small museums. This is a role that heritage institutions might consider taking up.

(5) Small museums do not seem to have the ambition to want to grow quantitatively, i.e., to increase the number of visitors, but they do want to grow in quality, i.e., to strengthen their social role within their community. In the workshop, various activities were identified to this end, during the consolidate stage, such as organizing dedicated events like days only for the friends of the museum, or ladies' nights ("The biggest wish for our museum? To have more visitors. But with a more local character." Volunteer at Fort 1881). Their strong tie with the local community is an asset intimately related to the very identity of small museums. It makes them unique. It needs to become their unique selling point to the outside world.

Conclusion

We have developed a personal interest in and connection to small museums. We have come to realize that not much attention is dedicated to their design practices. We believe that the intimate strength of these museums is often overlooked: building relationships internally, among the team of volunteers who consider *sociability* as one of the most important reasons to volunteer in small museums, and externally, connecting

and maintaining partnerships with the local community and stakeholders around the museum.

We studied their design practices through a series of research activities (design research, observations, interviews, and a design workshop, discussed in Studies 1–3) involving volunteers from different small museums in the Netherlands. In this empirical paper, we have discussed what insights this gave us into the needs and potentialities of small museums in the Netherlands and we have identified ways of helping them design better experiences, i.e., experiences that strengthen their major asset, which is their strong tie with the local community they relate to. Probably the most important, and also straightforward way to achieve this is for small museums to connect the museum visits to other on-going, and already customized activities like special visitors' only events and days. These are activities where small museums already excel because they are already rooted in their audience development practice. However, this can prove successful only if these activities are seen as part of the visitor journey, being just the pinnacle of it, and that each phase of this journey requires a different mindset to tackle it, as discussed through the three studies we reported. Thinking of the visit in this more structured way implies also taking into account the characteristics and motivations of target groups, understanding what visitors want and expect, and attempting visitor profiling, which small museums admitted to having neglected until now. Finally, admitting younger volunteers into the volunteer team would help bridge the generational gap with respect to the digital skills and competencies they need to uplift and to reach out to a different and younger audience, like Gen Z. Literature shows (see, for example, Edwards, 2005) that volunteering in museums allows people not only to meet their needs and motivations, to pursue passions and interests, but also that, specifically for young people, this can serve as a springboard for their professional life, to gain professional experience and networking possibilities (Păceşilă, 2020).

In conclusion, the volunteers working in small museums that took part in our research recognize that capacity building and community engagement are what they need, to become part of a committed ecosystem of very diverse stakeholders from various sectors that can offer support, to ultimately form a community of practice to share resources and ideas, and to learn from each other's best and less successful practices. Such an approach appears less daunting and financially and personally risky, while, at the same time, it extends the mainly social character of volunteering in small museums. This approach also appeals to the volunteers because it is within their reach and their "traditional" way of engagement with the museum (see also Calvi & Vermeeren, 2023).

Notes

1. https://icom.museum/en/resources/standards-guidelines/museum-definition/.
2. The Advantages of Being a Small Museum – American Alliance of Museums (aam-us.org).
3. https://m.facebook.com/groups/459824364508982/members/.
4. https://www.aam-us.org/2018/10/26/small-museums-go-big/.
5. NEW CHARTER Alliance report: "Cultural heritage education and training in Europe – pathways to qualifications" – CHARTER (charter-alliance.eu).
6. https://www.koperenknop.nl/expositie-play-mobil-van-4-juni-t-m-10-september-2022/.
7. The workshop was conducted in Dutch. In Dutch the following terms were used: interessant (in this article translated as meaningful or interesting), leuk (translated here as playful,

engaging, pleasurable or enjoyable), and laagdrempelig (translated as low threshold, low effort, etc.).

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Disclosure statement

Notes on contributors

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