



Virtual Museum Visits in a Pandemic: Older Adults Discuss Experiences of Art, Culture and Social Connection

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Abstract. This paper focuses on a series of guided virtual museum visits designed for older adults over the COVID-19 pandemic. The visits were undertaken as part of a research project in collaboration with the Montreal Museum of Fine Arts (MMFA) and brought together small groups of older adults for weekly guided visits facilitated by trained guides. The visits were held for twelve weeks between March and May 2021. We conducted a qualitative study on the visits, which included weekly observations as well as interviews with the older tour participants, the guides and the research and museum staff to understand the experiences of the virtual guided museum tours from the perspective of older adults. We explore how virtual museum tours provide opportunities for engagement with art, technologies and people, especially during the pandemic when visits to the museum were limited by social distancing measures. We bring these findings into conversation with our previous work with on-site museum visits and reflect on questions related to accessibility of virtual museum visits as well as the challenges for socialization.

Keywords: Virtual museums · Older adults · Guided virtual museum tours · COVID-19 pandemic

1 Introduction

With the onset of the COVID-19 pandemic, there was an increased effort to engage older adults in virtual activities. This paper focuses on a series of guided virtual museum tours for older adults, which were held over three months over the course of the pandemic. These visits were organized as part of a larger project on art, health and well-being targeting older adults experiencing social isolation. In the context of this larger project, both in-person and virtual tours for older adults have been organized with the Montreal Museum of Fine Arts (MMFA) since 2019.¹

¹ This qualitative study is part of a larger multi-methodological project designed to assess the potential effects of museum visits on the well-being, quality of life and health of socially isolated older adults. The project is led by Dr. Olivier Beauchet of the Université de Montréal and the operations of the project are coordinated by Kevin Galery, both of whom are affiliated with the *Centre de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM)*. This study is funded by the Fonds de Recherche du Québec - Société et Culture (FRQSC).

We seek to understand the experiences of older adults who followed these virtual guided visits in 2021, as well as the implications of the shift from an in-person, on-site format to a virtual format over the pandemic.

1. What were the experiences of older adults with the guided virtual museum tours?
2. How might virtual museum tours provide opportunities for engagement with art and people, and how do these experiences differ from on-site visits?

To answer these questions, we draw from group observations undertaken over twelve weeks of museum visits held in 2021, and interviews with the participants, guides, museum, and research staff. We bring this data, and the 2021 experience with guided virtual museum tours more broadly, in conversation with a previous series of on-site guided museum tours for older adults undertaken in 2019 *before* the pandemic hit Montreal. We conclude by providing some recommendations that may be conducive to improving the delivery of guided virtual museum tours, with an eye towards bolstering their potential for providing opportunities for social interaction among older adults.

2 Literature Review

Over the last two decades, museums have dedicated increasing attention to digitizing content and engaging the public virtually [1] and developing interactive or immersive content to enhance visitor experience [2]. The development of online content accelerated swiftly over the pandemic, as museums were faced with unprecedented closures [3] and strived to maintain connections to the public [4] under difficult circumstances. Several museums sought to connect to populations who were at increased risk of social isolation over the pandemic, such as older adults [5]. The pandemic put into focus the roles that museums hold in the lives of some older adults, including what Grácio refers to as their “caregiver” role [6]. Museums, they argue, care not only for art but people, as they have made deliberate efforts to engage with vulnerable populations like older adults to mitigate the harms of social isolation.

Online museum content, including virtual visits, are identified as a means to maintain access to cultural institutions in extraordinary episodes such as pandemics, but also in conditions of disability or reduced mobility [7], including those experienced by older adults [8]. Virtual museums, it is suggested, could be especially valuable for older adults living in care homes [8, 9]. According to Hilton et al., for example, virtual museums have “leveled the playing field for non-mobile older adults” by providing access to cultural institutions [8].

There is a limited amount of research exploring how to be attuned to the heterogeneity of later life in devising online arts-based content, building museum platforms, and creating related programming for older adults. As we suggest, this includes the importance of accounting for the diverse needs and motivations that older adults have when they engage with museums [10]. There is also a need to be cognizant of the differential digital [6, 11] and cognitive [11] capacities, which can impact older adults’ abilities to participate in and access digital programming.

Kostoska’s comparison of online museum platforms suggests that designs that are interaction-free are the easiest for older adults to use, especially for those who are new

users of digital technologies [11]. Yet researchers have considered other more interactive formats for virtual visits, finding that the interactivity and engagement are conducive to positive experiences for online museum visits for older adults [8, 9]. The type of digital device used for accessing virtual tours is consequential. For instance, the small screen of tablets can mitigate the “presence” of an artwork [9] while larger, more immersive, displays may foster a stronger connection between the remote visitor and the artwork.

Museums and arts-based activities are often credited for bringing benefits to their visitors, including older museumgoers. This has been documented from the intersecting perspective of art therapy [12], mental and physical health [13] and social isolation [14, 15]. Largely absent in the literature, however, is a focus on the ways in which museum visits for older adults—whether they be virtual or on-site—can be a worthwhile avenue of pleasure or leisure [16].

3 Methodology and Analysis

This study employed a two-pronged methodology. We conducted observations of a group of participants weekly over the course of twelve weeks. During the observation of the visits, two members of our research team took notes and completed two analytic grids that were designed to describe and understand the participants’ commitment to and engagement in the guided tours. Second, we undertook a series of semi-structured interviews with a total of sixteen actors involved in these museum visits. This included a member of the research team at the *Centre de recherche de l’Institut universitaire de gériatrie de Montréal (CRIUGM)* (one), the Head of Educational Programs and Volunteer Guides at the MMFA (one), the volunteer guides (four), as well as older adults who participated in virtual tours and who were recruited from all eight groups (eleven). These interviews took place in either French or English, according to the language preferred by the participants (throughout this paper, we indicate in a footnote when quotations have been translated by the authors). Due to the pandemic, all interviews were conducted using Zoom. Interviews were conducted by at least two members of the ACT team. We recorded and transcribed these interviews to support our analysis.

The analysis was conducted by coding emerging themes from the observations and interviews. The interviews and observations were analyzed by a minimum of two team members. We employed four analytical strategies. a) A set of themes emerged from our preliminary observations. These themes were identified by virtue of the frequency with which they were raised and the importance that these comments had in the data. b) We were attentive to moments in the interviews and observations where differing or even conflicting perspectives were highlighted. c) Even if some issues were mentioned only once, they were included if they raised a significant issue for the participant in question. Although some experiences may be unique within our sample, they are nonetheless significant to the participant. They are also likely to be repeated in future iterations of the project. We also considered that, in some cases, respondents would be unlikely to disclose these issues in other contexts.

4 Background: From In-Person in 2019 to Online in 2021

The pilot stage of this project began in 2019. A series of guided on-site museum visits for older adults were organized by the CRIUGM and the MMFA. This was done in partnership with local community organizations who supported the CRIUGM in the recruitment of older adults from French and Mandarin-speaking communities at risk of experiencing social isolation. In the aftermath of this visit, our team at the ACT Lab² undertook qualitative interviews with participants, guides, and other actors involved in the visit. The follow-up cycle of museum visits was originally designed as another round of on-site visits in 2020.

Faced with the COVID-19 pandemic and the inability to gather in groups and in public spaces, the decision was made to first postpone the visits. After realizing the pandemic was not subsiding, the project redesigned the visits to deliver them online *via* the teleconference software Zoom. The shift from on-site visits to an online format was born out of necessity, and it posed some important and unforeseen challenges in terms of recruitment. It was difficult for local community organizations, who serve older adults in positions of vulnerability and who faced multiple pressures during the pandemic, to participate in identifying and mobilizing older adults who not only had access to the Internet in their homes, but also had the appropriate device and sufficient digital skill to participate independently in weekly virtual museum visits.

Faced with this conundrum, many of the participants were recruited because of their existing affiliation with the MMFA or because of previous participation in research projects led by the team at the CRIUGM. This resulted in a pool of older adults who met the criteria for social isolation, but who were digitally proficient and could partake in virtual sessions with a relatively low level of one-on-one support or training. This contributed to assembling a cohort of individuals who were already avid museumgoers and thus largely well-versed in the arts. Yet, for most of these older adults, the online guided visits represented a first encounter with virtual museum tours and, more broadly, with organized group activities online.

The cycle of virtual visits that took place between March and May 2021 included eight groups and forty participants aged 65 and over. The eight groups were divided between four MMFA volunteer guides, who each took charge of two groups. The visits began at the same time and day each week for twelve consecutive weeks and lasted thirty minutes each. Six of the groups spoke French and two spoke English. Over the course of the thirty minutes, roughly three art pieces (most often paintings but also sculptures and video art) were presented *via* a PowerPoint presentation by a technical facilitator who shared their screen and navigated the slideshow. On occasion, short interpretive videos about the artworks were shown. For the last visit, an artist participated in a portion of the visit to talk about his work, and to answer questions from the group.

In order to maintain a balance of uniformity and spontaneity, the same art pieces were presented to each of the groups, but there were no scripts for the guides to use (although

² Aging + Communication + Technologies (ACT) is a lab based at Concordia University that is studying the experience of aging in a digital world. This study was conducted with research support by Marie-Ève Ducharme, Albane Gaudissart and Andrea Tremblay, as well as students from Dawson College in Montreal.

they pooled their research in advance of the visits). The pieces were all selected from the permanent collection of the MMFA by the guides and organizers before the visits began, and they were grouped thematically to follow a narrative structure and arc spanning from simpler to more complex approaches to art. The guides, drawing from the dialogic approach [17], would share information at the same time as they instigated conversations by asking participants questions about the artwork. This could include asking participants about the elements they observed in the artwork, their impressions of the artistic methods behind the work, the cultural and historical contexts, how the pieces made them feel and how the paintings might relate to their own life experiences.

5 Findings

5.1 Encountering Digital Technologies Through Museum Visits

The Need for “Warm Expertise” and Digital Support. Even if the group members owned digital devices, had connection to the Internet and had relatively advanced digital skills, a significant amount of work was devoted to making sure the visits would be accessible in advance. The coordinator of the project took on the role of a warm expert, who could mediate “between the technological universal and the concrete situation, needs and background of the novice user with whom he is in a close personal relationship” [18]. This support was crucial in the weeks and days leading up to the first session. As the coordinator stated:

Half the people had zero problems. They knew about Zoom, they were using it already so it was super easy. And 25% needed a little bit of guidance to install the software, to get used to it, to use it. And for the remaining 25%, it was hands-on support, it was by phone, we told them where to click and what to fill in to install it for the first time.³

Some of the older adults we interviewed reported receiving support from friends and family to participate in the sessions. Despite this, two people stated that they would have benefited from a more in-depth knowledge of Zoom and its features before the tours began (*e.g.*, knowing how to access the gallery mode). The observations of the visits highlighted how limited prior knowledge of Zoom affected their experiences. These participants were not able to enlarge artworks easily, see the other participants in the gallery or even participate in the conversation because of intermittent issues with their microphones. Prior digital experience and skills affected the participants’ ability to fully engage with the virtual activities developed by the museum guides, at least initially.

Learning to Use Zoom. Despite the challenges we observed, the large majority of older adults we interviewed (nine of eleven) stated that they did not have major difficulty becoming accustomed to the Zoom format during the visits. One participant noted, “I liked this format better than I thought [I would].” According to one participant, “it was very, very easy to participate” in the tours. Indeed, some participants learned how to

³ Translated from French.

use Zoom for the first time through their participation in the tours and reported using it afterwards to connect with friends and family. Others improved their knowledge of the software, which they thought could have a positive impact on their ability to use the software to participate in other virtual activities after the virtual visits.

Digital Distractions. Several participants mentioned that noise from other participants or their late arrival to a session could be distracting. One participant noted that “the way participants wouldn’t turn off their microphones, blabbering, was very distracting. They didn’t have that sort of basic Zoom etiquette down” (it should be noted here that participants were instructed to leave their microphones on as much as they could, to foster their ability to quickly and frequently intervene in the conversations). We observed that the presentation of a particularly serene video artwork (Nadia Myre’s *Portrait in Motion*) was particularly hindered by a participant’s live microphone. A participant made noise without knowing that she could be heard by the other group members. This caused a significant disturbance that interfered with the group’s experience of this piece.

5.2 Encountering Art Through a Screen

Affordances of Virtual Tours. We sought to understand how virtual tours, for this group of avid museum visitors, compared to their previous in-person encounters with art. Experiences were mixed on this front: approximately half of the participants interviewed found virtual tours to be a “very good” format for encountering artworks. Some features of the virtual tour format, in particular, were appreciated, as they allowed participants to interact with the art in a way that was unusual for them. For example, participants appreciated seeing video art or interpretive videos as they thought this enlivened their virtual experience. Even more memorable for the participants—and a feat that is likely easier to accomplish with virtual tours—was the presence of the artist Moridja Kitenge Banza, who joined the Zoom visits and answered questions about his work for each of the eight groups. The artist spoke briefly about his practice, live from his studio, and answered questions from the participants. Having an artist currently exhibiting at the MMFA attend a session to engage ‘live’ was a noted highlight for participants. As one explains: “it was uplifting actually, he gave another viewpoint on the whole situation. [... his presence] made it more alive.” This feature puts into focus what could be uniquely accomplished *via* the virtual visit.

Other features of the virtual tours were noted. Three participants mentioned that taking part in the tours using a tablet allowed them to enlarge portions of the screen, with a gesture of their fingers, so that they could see the details of a work. For these participants, the virtual format allowed them to appreciate museum works in a new way and to discover visual details. Another participant noted that she was able to get closer to her screen and felt that, with her iPad, she was closer to the works than she would have been in the museum.

I think I prefer the virtual visit both because it’s easier to get to and parking at the museum is difficult, but also because I think you have closer access to the art. Not to the actual art obviously, but to see it blown up on a screen is very useful.

What is Diminished with the Virtual. While the virtual tours that used the Zoom platform convey some unique aspects of the artworks and provide a unique vantage for some, other aspects of encountering art were thought to have been evinced by the online experience. During the weekly observations, we noted that some individuals expressed that they had difficulty distinguishing colors on the screen. Others would ask the guide about the texture of the works and the dimensionality of the brushstrokes. Almost systematically, participants asked the guide the size of a work to better imagine the space it occupies in the MMFA. Despite the guide's efforts to provide context about the rooms in which the artworks were placed through explanations and photographs, there was an enduring lack of context, or sense of the overall atmosphere and grandeur of the MMFA. As Kaplan notes "we implicitly measure and assess the space and objects around us in relation to our bodies" [19], and in these terms the embodied experience of an on-site visit to the museum was notably absent.

There was a sense, conveyed by the participants and guides alike, that viewing art on a screen deprives it of an intangible quality, what Benjamin in his classic piece, *The Work of Art in the Age of Mechanical Reproduction*, refers to as its place in space and time, its authenticity [20]. One participant noted that, for her, there was a marked lack of "sensory" or "emotional" triggers when viewing work through a Zoom screen. A participant encapsulates her ambivalence about her experience with the virtual tours:

You can see them [the artworks] closer, actually, [virtually] than if you are there. You can't get up that close to a painting [in person]. But it certainly isn't the same. I mean when you see live art, it is living and so, to me, it's like a human being. It's different when we're in person than [when] we're talking like this. You get the full impact of the spirituality in it, and perhaps the goal of the artist. It's an emotional experience for me.

Deepening and Broadening Connections to Art. Even if all participants did not find that virtual museum visits were an ideal way to engage with art, almost all of them appreciated the visits as a means to compensate for their inability to attend the museum in person, especially at a time when museums were closed due to the pandemic. The virtual tours allowed many participants to further their knowledge and interest in the arts. In fact, many participants specifically used the terms "deepen" and "broaden" to talk about the impact that virtual guided tours can have on their connection to the arts.

They appreciated all the work that went into selecting the pieces chosen, the coherence of the themes and the overall narrative approach of the guides who mediated their virtual visits. The structure of the tours, in which guides focused on a few specific works, allowed participants to consider them more thoughtfully, and in more detail. Mieke Bal refers to focalization as "[t]he relationship between the vision, the agent that sees, and that which is seen term" [21]. Along these lines, the virtual museum visits entailed a focalization that defined the interaction and relationship between the visitor and the artwork. As one participant noted: "you appreciate and observe certain things because you are focused on the work whereas in the museum you are walking around." Another participant appreciated that virtual visits brought more focus to the art-viewing experience: "each of the works was highlighted as opposed to when you go to the museum,

it's overflowing everywhere." The hyper-curated format of the guided tours, where visitors could only see three predetermined artworks at a time, gave them a more intense encounter with individual pieces, and in a sense trained them in how to look closely.

The virtual tours also exposed them to art they otherwise would have not encountered in a typical museum visit. For some participants, the visits introduced them to Inuit or Indigenous art. One of the participants mentioned: "I liked the discovery of African art. I am now planning to visit this wing." Others said they had a better understanding of contemporary art, which they disliked before being exposed to it in this setting. Most of the participants stated that the visits allowed them to discover the museum's permanent collection. In fact, through the visits, they realized how little they had previously encountered the permanent collection despite years of living in Montreal and visiting the MMFA. When we asked the participants what they do at the MMFA when they frequent it, the vast majority stated they went to view special exhibits. Several participants expressed a desire to now see these works in person: "I plan to go see all of them in person for sure."

Virtual and On-Site Visits as Complementary. Most of the participants stated they would like to continue to participate in virtual museum tours, even in a post-pandemic context. But this would need to happen in a specific way. For instance, participants thought that the virtual option was "convenient" and required less effort and organization. They determined that this would be ideal for periods when they may experience specific mobility issues (be it because of health, weather, or confinement measures). Many participants volunteered that they would prefer hybrid in program delivery that would allow them to alternate between virtual visits and on-site tours so they could benefit from the distinct advantages of each format. It was clear that, for these participants, the virtual program of visits did *not* replace on-site visits. In some cases, it just made participants keener to go to the museum in person: "after the virtual visits I was just really eager to go to the museum in person. I can't wait to go." (see Footnote 3).

5.3 Virtual Visits to Bridge Inaccessibility

Montreal is plagued with cold, icy winters that often make commuting treacherous for older adults. Parking in the downtown area, where the MMFA is located, is difficult—even in summer—and expensive. Para-transport for those with reduced mobility can be unreliable or inflexible. During much of the pandemic, health measures in the province of Quebec forced the museum to close and restricted people's ability to gather in public spaces. The MMFA, with its large rooms, multiple buildings, and limited seating, can be difficult to navigate for people with reduced mobility. Although mobility aids are available to visitors, our interviews with older museum-visitors indicates that older adults who could benefit from these aids are hesitant to actively request them or even accept them when they are offered because of fears of being stigmatized.

For these reasons, the virtual guided tours may be an attractive alternative that mitigates some of the accessibility challenges posed by the MMFA or other museums. For one participant with a mobility impairment, the virtual format gave her a chance to access a museum she would not have visited and an activity in which she would not have

participated in, otherwise. With a foot injury, she is unable to walk through a museum and standing in front of an artwork for several minutes is especially difficult. She told us that she had stopped going to the MMFA in recent years: “the museum has become a painful experience because of so much standing, Zoom makes it nicer for that.” This difficulty of standing still in front of a work of art for several minutes was identified by many participants as a problem with on-site visits, and one of the benefits of virtual tours. According to another participant “lots and lots of elderly people are coming to the museum and having no place to sit, it’s really hard.” Another woman, reflecting on a recent museum experience, noted: “there were no benches to sit down. I had to miss out on the last two rooms [of the exhibit].” These participants welcomed the virtual alternative but still feared that the lack of accessibility of the museum would limit their ability to engage with art in their old age in the ways they favoured.

The virtual tours also allowed participants to access the museum’s works during the pandemic, especially during a time when the museum was closed to visitors. The virtual tours were particularly appreciated by participants who were out of town when the tours took place. They felt privileged to be able to access the MMFA’s works from the comfort of their own homes: “It’s great for people who can’t travel and live far from Montreal.” (see Footnote 3).

5.4 Encountering Others Through Guided Virtual Museum Tours

Difficulty Building Social Connections Through Virtual Visits. As we mentioned, this study is inscribed in a larger project centred on the potential role of museum visits in improving health, well-being, and quality of life for older adults who find themselves in a situation of social isolation. Because of this, the potential for virtual museum visits to be a space for social interaction was front of mind for organizers. Yet, among the participants interviewed, only one person mentioned having created meaningful bonds or friendships with others: “We became quite good friends. We are all going to meet in July and have an outside tour and lunch. I did not expect that. I usually don’t set too many expectations when I sign up [for activities like this one].”

This experience of connection to others as a result of participating in a virtual visit, however, was not the norm. For a participant belonging to a different group, the dynamic was much less conducive to a friendly outing: “Let’s just say that at the beginning it was a little fixed, then it developed quietly, but not really fast. It remained rather fixed, rather formal.” (see Footnote 3). The majority of participants felt that the virtual format posed challenges to socializing within the group. For one of the participants, the virtual mode directly and negatively impacted the quality of interpersonal exchanges: “It’s not a social context like it would be in a personal encounter. So, the personal context is missing and always will be missing if it remains virtual. There’s really something missing in the virtual encounters.” Others told us that the structure and parameters of a short virtual session (it bears repeating that the visits were only thirty minutes) were not conducive to bonding between participants. As one participant explained, “It is hard to make permanent connections in small boxes, also it was too short.” Another participant answered similarly: “it’s very brief, everything is very small, so it didn’t have a huge impact on me. You know, the connection with the people, even with the art, it’s hard to really connect.”

Engaging with Others as a Rewarding Experience. Even if most participants did not make lasting social connections *via* the tours, this does not mean that they did not appreciate the interpersonal dimension of the visits. All of the participants reported that they liked listening to the others' opinions about the works of art: "everyone has a different imagination. It opens our minds to have the comments of others." A guide echoed a comment she heard during a visit: "participants mentioned how much they appreciate talking to each other and seeing these paintings together."

In fact, the social aspect of engaging with art was appreciated to such an extent that nine of the eleven participants interviewed would have preferred that a greater portion of the visit be allocated to this type of exchange. One participant explained: "I would have liked more discussion to be encouraged. I wish there was less recap of the week before." Another participant agreed: "participants should talk more and the guide less." (see Footnote 3). For some participants interviewed, visits to the museum normally represent a solitary activity, and the cycle of virtual visits has made it possible to conceive of the museum as a social experience. A participant noted "I really appreciate another perspective on art, as I am used to going to the museum on my own." (see Footnote 3).

6 Discussion

The pandemic prompted organizers to hold the museum visits in videoconference mode using Zoom software. This unexpected change—and the need to recruit digitally-proficient older adults—excluded many of the participants who would originally have been targeted for the activity. During the 2019 visits, on the other hand, participation was not contingent on the use of digital technologies.

The juxtaposition of an on-site cohort with relatively low digital skill and low exposure to art and museums (2019) with an online cohort of relatively high digital skills and high exposure to art and museums (2021) helps us put our findings into context. It also generates new questions. The differential experiences of the older adults with guided museum tours generates added critical questions on the accessibility of the museum for older populations, particularly those who are experiencing social isolation, and the challenges to socializing with others online.

6.1 Enduring Digital Divides Thwart the Accessibility of Cultural Institutions

There is an increasing interest in digital activities to counter social isolation among older populations [22] and a desire to make online museum content accessible to older audiences through online programming. Yet, which socio-economic classes of older adults actually can access emerging opportunities for online engagement with art and culture and take advantage of the benefits often associated with museums [12–15]?

As we have argued above, our study confirms that the virtual mode provided opportunities for older adults with reduced mobility or other disabilities to continue to have or to regain access to the museum, as long as they were digitally connected in advance. We also found that older adults who enrolled in the virtual visits still wanted to maintain a physical and embodied access to museum spaces throughout later life. The 2019 and 2021 participants all agreed that on-site museum tours could be physically challenging

due to differential capacities for mobility, hearing, and vision. The digital option remains important and valuable for these older adults, yet they also wanted access to the museum, which is an important cultural institution in the city, in person. In other words, the virtual visits do not diminish the responsibility that museums have for maintaining accessible physical spaces, a mission commensurate with their social role as public stewards of knowledge and culture.

Further, as we explore the potential of museums as space to socialize and engage with art and culture, the difficult recruitment process experienced by this project suggests activities like these are a non-starter for older adults already at the margins of digital society. Accessibility, in digital and socio-economic terms, also needs to be considered from the perspective of the digital. Access to the Internet is far from being just a question of age; it is linked to other socio-economic factors such as income, levels of education and literacy rates. In Quebec, 74% of seniors aged 65 and over are internet users. That number tumbles down to 43% for older adults who earn less than \$20,000 a year [23]. Access to digital technologies for low-income adults is contingent on several intersecting social and structural factors [24]. In fact, many of the factors associated with social isolation in the city of Montreal [25] are also predictive of digital disconnection among older adults.

All of this means that an activity that has Internet access, use of a device and digital proficiency as requirements quite likely excludes those individuals who may gain the most from the opportunities for engagement with culture, art and individuals. As such, there is a risk of further entrenching the museum's traditional image as elitist institutions [26] that cater only to a narrow segment of the population.

6.2 The Challenges of Online Socialization

A crucial difference between the 2019 and 2021 tours was the degree to which people felt as though they had socialized with others. Many of the older adults who followed the 2019 visits had developed relationships with the other project participants. For some, this included occasional outings in parks or for coffee, or ongoing communication online. Further, a notable number of participants (five of twelve) had taken up language classes, art classes or new art practices in the aftermath of the visits and directly credited the on-site museum visits for motivating their decision to partake in these activities.

In our analysis of how online museum visits compare to on-site visits, we do not see corresponding impacts among the 2021 participants. Despite the success of the visits and the demonstrated potential for building virtual spaces to socialize through the experience of art, the online museum tours did not cultivate social engagement in the same way that the on-site activities did. Because the two groups were distinct, it is worth exploring some of the factors that may have contributed to these differences.

First, for the participants interviewed in 2021, an interest in art and the museum was at the forefront of their decision to enrol. The primary motivation for participating in virtual visits was to access art, not the desire to meet others or even the desire to find a fun or social activity during a pandemic. The primary purpose of the activity, for those we spoke to, was not to socialize and the majority was surprised when we asked if they had engaged in social interaction with other participants outside of the guided tours. One participant exclaimed, "I didn't know that was a possibility!". Meanwhile, most of the 2019 participants did not have an existing interest in art and had been drawn to the

activity because of more varied motivations: from finding an enriching and fun activity, to passing the time, to learning about art, to connecting with others.

Second, on-site visits offer more opportunities for spontaneous connections between participants. In 2019, while the tours were taking place at the museum, many participants were chatting informally with the guides and other members of their group in the minutes before or after the guided tours. These discussions allowed people to identify a few others with whom they got along, build relationships from week to week, and eventually socialize outside of the tour context, whether online or in person. In a Zoom session with multiple participants, it is difficult, if not impossible, to start a conversation with just one other person without the entire group being involved in the conversation. The down times before and after the visits were also absent, as the Zoom room was opened promptly at the start of the visit and closed at the end. In other words, the platform's affordances do not readily make opportunities for informal conversation between participants possible.

Third, the majority of the social connections we saw in the previous cycle took place in a discussion group on the social network WeChat. This group brought together most of the Mandarin-speaking participants. This discussion group was designed to communicate with the participants in an effective way, but it fortuitously became a socializing structure that operated in parallel to the tour project. Through WeChat, older adults would share information about art, among other interests. As the pandemic struck in 2020, the WeChat group members have continued their exchanges online to this day.

Despite these differences, the 2021 group would have liked to have had an informal discussion at the beginning of the visits and would have appreciated to hear more of the opinions and perspectives of others on the works presented. There was a clear willingness to engage more with others, that may have been stifled by the rigidities of the online parameters. This provides opportunities to enhance the social aspect of future tour cycles and to build on the socialization potential of online museum visits.

7 Conclusions and Limitations

7.1 Limitations of Study

It is important to note a few limitations of this research. First, as we discussed in this article, the challenges linked to recruitment of participants to the museum visits meant that the group had a strong pre-existing interest in art and museums and a relatively high level of digital proficiency: this study should be understood within this context. As such, the experiences of our participants with online virtual tours likely were different than they would be for older adults with less of an established interest in art, and lower digital skills. Second, as we bring the 2021 online visits in conversation with the 2019 on-site visits in the discussion section, it is worth noting the distinct timelines of the data collection. We undertook the data collection for the 2019 group several months after the end of their visits. This gave us a desirable vantage into the long-term impact of the visits but also made our data suffer from diminished memories. Our 2021 data collection began mere days after the end of the visits, meaning that the older adults had a clearer recollection of their experience but not as fulsome an understanding of the longer-term impacts that the virtual visits might have brought to their daily lives.

7.2 How Museum Tours Provide Opportunities for Connections

We have presented the results of a study that documented the experiences of older adults who followed a series of twelve guided virtual museum tours over three months in 2021. We asked two research questions. First, we wondered “How might virtual museum tours provide opportunities for engagement with art and people, and how do these experiences differ from on-site visits?” In contrast with previous on-site visits, building social connections among group members tended to be more difficult and was less likely to lead to interpersonal connections outside the group. Likewise, the project and the recruitment challenges in the context of a pandemic puts into focus critical questions about the (in)accessibility of museums and emerging forms of virtual content designed for older adults. In answering this research question, we can briefly identify recommendations that may benefit future initiatives, especially as it pertains to improving the experience of older adults with museum visits, improving accessibility, and bolstering the role of virtual visits for mediating social encounters.

Improving Access for Digitally Disconnected Older Adults. Certainly, this matter is contingent on systemic factors that are outside of the purview of virtual tour organizers. Yet, some potential ways to mitigate exclusion could include strengthening the accompaniment of older adults who need additional support. Another strategy could include working in partnership with local digital literacy initiatives to provide new digital learners opportunities to hone their skills through virtual tours.

Improving the Quality of Social Encounters. Longer visits with a more relaxed pace can help older adults engage with each other. Consider increasing opportunities for spontaneous exchanges like asking questions, creating breakout rooms for discussion. This could also be done by providing time for informal discussions after the tour, which may be encouraged by providing questions related to art (*e.g.*, Do you practice art? Can you tell us about your most cherished museum experience?). Options for parallel engagement between tours could be considered (*e.g.*, email lists, Facebook groups or message boards). Reminding participants that the visits are not just about art but also about connecting with people can normalize conversation and social connections.

Improving the Overall Experience. Devising and communicating protocols for group members to participate (*e.g.*, you may speak up at any time), and repeating instructions frequently may help some group members feel more empowered to intervene. Questioning participants directly can also be a useful strategy to encourage more egalitarian participation.

7.3 Experiences of Older Adults

Our second research question was “What were the experiences of older adults with the guided virtual museum tours?” Our findings reveal our participants’ diverse perspectives on matters such as engagement with technologies, art, and other individuals through the visits. Broadly, we found that the digital approach to guided museum visits provided for these digitally adept older adults an effective and simple means of participating in

the offerings of a local cultural institution. Museum tours, which were facilitated by an experienced guide, allowed them to broaden and deepen existing interests in art. In particular, the participants valued partaking in museum visits as a collective rather than solitary experience: they welcomed the input and opinions of others, finding that it enriched their understanding of art. The digital's capacity for incorporating supplementary engaging elements (like interpretive videos or the presence of an artist) were appreciated, yet many participants still longed for an embodied museum experience. Especially notable for these participants was the convenience of the virtual format to maintain a connection to art and culture over the course of a pandemic, when there were options for in-person cultural activities. For most of our participants, the virtual tours were an initial—and highly positive—foray into online group activities upon which they could build.

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