

Using Participatory Design Techniques to Understand Audience Experience within an Art Museum Context

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ABSTRACT

Art museums have difficulty attracting a young adult audience. We contend they can not only attract but also sustain this group by understanding the relationship between type and quality of experience, engagement, empowerment and motivation. Insights into this relationship can be gained by involving visitors in the creation of their experience. Our study tackles the design problem through the lens of participatory design. We used its principles and practices as a framework within which experience design and interaction design tools and techniques were employed to discover what our target audience values and embodies both inside and outside of the art museum context.

Author Keywords

Participatory Design, Experience Design, Interaction Design, Art Museums, Flow, Engagement, Empowerment, Play, Games, Design Methods

THE DESIGN SITUATION

A ‘new museology’ [9] – a “climate of increasing reflexivity within the profession” has crept into the closed world of museums in the last couple of decades. This, coupled with the economic paradigm of the ‘experience economy’ [7], has resulted in many museums putting substantial effort into creating engaging experiences for their visitors. “Audiences have come to expect more in the experience economy. They expect to be entertained by the entire experience of attending a museum for the purposes of visiting an exhibition and even more so by going online to visit one.” [6] Unfortunately, for the most part art museums have been slow on the uptake. Their primary concern is displaying art objects for aesthetic appreciation and learning. Yet, while they are keen to gain and keep new

audiences, they struggle to address this issue while staying true to their mandates. One audience art museums have not put substantial effort into attracting is young adults - Echo Boomers, who are technologically savvy and media driven. On the occasion this audience goes to art museums it does so as part of school related fieldtrips or to see blockbuster shows. Bell, in her study of museum ecologies, noted art museum audiences during the week tend to be “noticeably older (55-75), predominantly female (2-3:1), and predominantly white.” [2] To convince this audience to integrate art museum visits into their lives, museums must understand the interests and desires particular to them. We argue that doing so entails gaining a rich understanding of the types and quality of experience that are attractive to this audience. The problem is articulated by Skramstad when he says “museums need to recognize that they are in the experience business and that it is the distinctive theme, context, and value of the experiences they bring to a particular audience that will increasingly define their success...There exists the potential to orchestrate new and distinctive experiences that can give value to their audiences in a way that meets their individual needs. The key is that whatever is presented must offer an opportunity to go beyond passive learning to active involvement in the experience itself.” [13] Hood’s research on people in the Toledo metropolitan area found people who do not visit museums value experiences that allow them to be with people (social interaction), feel comfortable and at ease in their surroundings and be active participants. These non-participants “perceived museums to be formal, formidable places, inaccessible to them because they usually have had little preparation to read the “museum code” – places that invoke restrictions on group social behaviour and on active participation.” [5]

Informal conversations with young adults prior to our workshops revealed they are not motivated to visit art museums on their own to contemplate works of art because they believe there are more interesting and engaging places to spend their time; in addition, they do not feel welcomed by these institutions. Our study participants appreciate the “liminality” [2] of the art museum space but ultimately feel constrained by its formal protocols (such as speaking in hushed tones), which do not foster aspects of experiences that are important to them, such as social interaction. Our

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findings suggest art museums can attract and sustain this audience by understanding the relationship between type and quality of experience, engagement, empowerment and motivation. Insights into this relationship can be gained by involving visitors in the creation of their own experience. – in knowing, for example, what form they want an art exhibition to take.



Fig. 1 Participants creating collages in workshop 1

The field of participatory design (PD) has a strong foothold in this problem domain. A broad range of tools and methods are available to discover what end-users value in the systems they interact with, which, when used, enable designers to achieve positive outcomes: their users emotionally buy into the systems they produce and this translates into a long-term engagement with these systems. By adopting principles and practices from PD, museum curators and stakeholders can achieve a similar understanding of their audiences and the same positive outcomes. The principles and practices of PD are not commonly used in museum visitor research. We believe they are well suited to the museum environment because a premium is placed on the involvement of the audience being designed for and they are regarded as experts in what they do. To this end we used PD workshops as a framework within which experience design and interaction design tools and techniques were employed.

OUR DESIGN APPROACH

Taxen's exhibit re-design is the one of the few approaches to museum exhibit design that used participatory design techniques. His perspective is useful because "many museums are seeking more visitor focused ways of approaching (and extending) their audiences, a reorientation that requires a more substantial visitor-designer dialogue than the field of visitor studies currently seems to be able to provide." [14] Taxen's work informed our own in that we applied participatory design techniques to gain more robust user needs and requirements information for visitors within a museum context. Another instance of HCI methods crossing over into the museum exhibit design domain is that of the Hunt Museum case study [4]. In this project the

designers worked with curators, docents and educators to design an interactive exhibit.

Other relevant work that influenced our approach was Bell's concept of museum as cultural ecologies [2]. Her "art museum ecology" defines three characteristics particular to museums: liminality (embodies experiences set apart from real life), sociality (people go to museums in groups), and engagement (people go to museums to learn and be entertained). Throughout our research, we were interested in whether or not these three characteristics were also valued by our participants.

Research on interactivity and learning in art museums by Adams and Moussouri [1] set the stage for our work. They define interactivity within a museum setting, as a "family of experiences, which actively involve the visitor physically, intellectually, emotionally, and/or socially." Also useful to us is the authors' position that "engagement in interactive spaces over time provides visitors of all ages with inquiry and looking skills needed to have their own dialogue with works of art."

An informal conversation with the curator of a local art gallery revealed that conducting focus groups is the norm for gathering data about target audiences. One of the concerns with traditional methods like focus groups for gathering data from participants is that if they know what you are looking for, they will tell you what you want to hear. [10] We also contend data gathered in this way lacks richness and depth. Participatory design techniques enable designers to paint a more complete picture of their audience and suited our design problem because they:

- "empower museum visitors to influence the design of the exhibitions they visit, to a larger extent than what is common practice today." [14]
- obtain high-quality needs and requirements information from our user for an as yet unknown and undefined system [8]
- probe beyond what users say to determine what they really value [10]

Sanders & Dandavate [10] describe perspectives for accessing people's experience – Say, Do & Make. What people say gives insight into what they think; what people do and how they use things provides observable information. By focusing on what people make, researchers can access what people know, feel and dream. This is the level of experience we were most interested in accessing. Sanders & Dandavate suggest "the purpose of "make-tools" is to discover as-yet unknown, undefined, and/or unanticipated user or consumer needs."

Our first workshop employed a version of the “Dreams” technique [12, 10]. This technique is primarily used in the conceptual stage of the design lifecycle. Dreams can be used to understand people on an emotional and social level; they are a way “of allowing them to indirectly disclose issues important to them.” [10] Dreams help designers avoid not only the problem of participants trying to guess what the designers are looking for but also the subsequent problems of participants tailoring their answers and inhibiting their own creativity. We asked our participants to share with us their memories of positive interactive experiences in public settings. They were tasked to create a collage of such an experience (Fig.1). Our second workshop used a form of “Games”. [11, 12] Games are a useful way of obtaining information from participants because “they have a way of making people feel more comfortable and less judged.” More importantly, they enable designers to observe how participants truly engage with each other and what’s put in front of them. Our participants were asked to play three of the four games we designed so that we could gain insight into the nature of their social interactions and what they find deeply pleasurable and engaging - a state of ‘flow’ as described by Csikszentmihalyi. [3]

PD WORKSHOP 1: “DA DA DA”

Prior to the workshop participants were sent an invitation to attend. We did so to make the workshop an event, similar to a party. A “get to know you” questionnaire enabling us to personalize the workshops was sent along with the invite. Six male students from the SFU School of Interactive Arts and Technology, ranging in age from 18-20, responded to our call for participation. We first presented our participants with a series of projected images (Fig.2) and asked them to tell us which images they felt represented engaging, interactive experiences, which did not, and why. The images presented varied from people using technology to reading books, playing instruments, and talking in groups. Next we asked participants to create an expression of their best interactive experience in a public space using the art supplies provided. Materials were chosen to appeal to several of the senses including sight, touch and smell. This required them to think of an experience from memory that was important to them. Some participants initially had difficulty with this request. We suggested they think of an experience from childhood. After art making we had them come together for a show and tell of their work and a discussion of interactive experiences, technology and pleasure. At the end of the workshop, the students were asked to complete a final questionnaire probing their impressions of museums and their own museum experience. We analyzed video footage of the workshops and the questionnaires were informally coded to expose major themes in the data. The results of the first workshop uncovered the following themes: participation, learning, play, games, being creative, group activities, socializing, physical activities, face to face interaction, activities

involving skill, challenge, thought, competition, and exploration, and control.

PD WORKSHOP 2: “GAMES PEOPLE PLAY”

This workshop was designed to focus on aspects of our participants’ enjoyable experiences, derived from the first workshop, and to relate these experiences to art objects through various activities. Once again we invited people to attend. This time one female student, along with six male students, two of whom attended the first workshop, answered our call for participation. Activities included: “What’s the story”, “Self-Portrait”, “Write a Poem”, and “Continue this scene”. “What’s the story” presented participants with a reproduction of Velasquez’s *Las Meninas*, 1656. Participants were not given the name of the artist or title of the painting, and were asked to write a short story as a group about what was happening in the work. “Self-Portrait” required participants to draw a portrait of how they see themselves. They were not given a mirror and had to draw from memory. “Write a Poem” (Fig.3) asked participants to compose poetry inspired by a work of art. The activity required each person to contribute at least one line to the poem, which had to be at least 6 lines long. “Continue this scene” (Fig.4) asked participants to build upon a copy of Van Gogh’s *Café Terrace on the Place du Forum*, 1888 by drawing on pieces of paper added to all directions of the image. They were encouraged to build on the work of other participants.

Participants were randomly assigned to teams to complete three out of four of these activities and to present their outputs to the other teams.



Fig. 2 Warm-up images presented in workshop 1

For their final activity they were tasked to create their own activity based on the photograph provided with the option of working alone or in teams. When creating their own activity, participants were not permitted to duplicate the ones we had designed for them, and were encouraged to generate an activity suitable for an audience of their age. Again they were asked to present their work to the entire group. This was followed by a discussion of their work and how they perceive and interact with art museums.

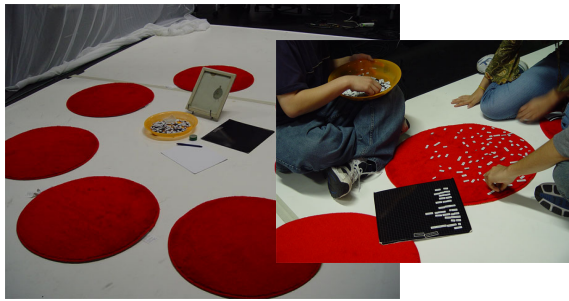


Fig. 3 'write a poem' activity in workshop 2

Before leaving participants were asked to fill out a questionnaire that challenged them to imagine and sketch their ideal art museum space.



Fig. 4 'continue this scene' activity in workshop 2

DESIGN OUTCOMES AND FUTURE WORK

Thus far, we have generated a more descriptive picture of our target audience in relation to the design problem and designed a set of workshops curators and museum stakeholders can replicate to understand a young adult audience. Patterns that emerged from both workshops suggest our participants value and embody: collaborative, face-to-face, multimodal interactions; activities that require skill and thinking; being in control of their experience; performance and sharing of their work in a safe environment; generative, creative activities; making and telling stories; and fun and play. We have completed the first steps in understanding the relationships between type and quality of experience, engagement, empowerment and motivation within an art museum context.

Our future work will, like Taxen's [14], use participatory design techniques to design an actual exhibit, evaluate a museum's existing exhibitions and include museum stakeholders in the concept development process.

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REFERENCES

1. Adams, M. and T Moussouri. Interactive Learning in Museums of Art and Design. In *Proc. of Interactive Learning in Museums of Art*, 2002. http://www.vam.ac.uk/res_cons/research/learning/index.html
2. Bell, G. Making Sense of Museums: The Museum as 'Cultural Ecology'. Technical report, Intel Labs (2002). http://www.intel.com/technology/techresearch/people/bios/bell_g.htm#publications
3. Csikszentmihalyi, Mihaly. *Flow: The Psychology of Optimal Experience*. Perennial, NY, USA, 1993.
4. Ferris, K., et al. Shaping Experiences in the Hunt Museum: a Design Case Study. In *Proc. of Designing Interactive Systems (DIS) 2004*, ACM Press (2004), 205-214.
5. Hood, M.G. and G. Anderson (Ed.). Staying Away: Why people choose not to visit museums. In: *Reinventing the museum: Historical and contemporary perspectives on the paradigm shift*. AltaMira, Walnut Creek, CA, 2004.
6. Pantalony, R.E. A Marriage of Convenience: Museums and the Practice of Business Doctrine in the Development of Sustainable Business Models. *Archives & Museum Informatics Europe* (2003), 1-12.
7. Pine, J.B. II & Gilmore, J.H. *The experience economy: work is theatre & every business a stage*. Harvard Business School Press, Boston, USA, 1999.
8. Preece, J., Rogers, Y., & Sharp, H. *Interaction Design: Moving beyond human-computer interaction*. J. Wiley & Sons. NY, USA, 2002.
9. Ross, M. (2004) Interpreting the new museology. *Museum and Society* 2,2 (Jul 2004), 84-103.
10. Sanders, E., B-N, & Dandavate, U. Design for experiencing: New tools. In *Proc. of the First International Conference on Design and Emotion*. TU Delft, 1999.
11. Shedroff, N. *Experience Design 1*. New Rider Publishers, IN, USA, 2001.
12. Shedroff, N. Research Methods for Designing Effective Experiences. In *Design Research: Methods and perspectives*. MIT Press, USA, 2003.
13. Skramstad, H. An agenda for museums in the Twenty-First Century. In *Reinventing the museum: Historical and contemporary perspectives on the paradigm shift*. AltaMira, CA, USA, 2004.
14. Taxen, G. Introducing participatory design in museums. In *Proc. Participatory Design Conference 2004*, ACM Press (2004), 204-213.