EXPERIENCE ARCHITECTURE IN ARTS AND CULTURAL ECOSYSTEMS

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ABSTRACT

Arts and Cultural Management Studies (ACMS) encompasses connected areas ranging from organizational strategy to museum curation and event planning. It is easy to think of each area of an arts organization as its own insular field or specialty, but in attaching the idea of an arts ecosystem, the considerations of the field as a whole become more interwoven. The arts ecosystem of a city can be likened to a natural ecology; organizations operate in delicate balance to keep resources and participants flowing. The larger arts landscape is the overall ecosystem, while the individual organizations contain their own ecologies of experience. While these organizations all live in harmony, there is tight competition for resources and audience attention. In pursuing the engagement of participants, arts organizations can assume the role of a user experience (UX) practitioner. Practitioner in this context meaning audience or user of an arts service or experience. Using principles of UX theory, a case can be made for arts organizations to invest in research that will benefit both their internal ecosystem and their positions in the greater arts landscape. When arts populations are in competition for resources and audience attention, the organizations that are most successful are the ones that are able to set themselves apart while also achieving harmony with the other arts organizations within the ecosystem. User experience research principles can be used to design these distinctions and create order, filling the gaps of ACMS strategy to focus wholly on participant experience.

This thesis is dedicated to:
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INTRODUCTION

The field of Arts and Cultural Management Studies (ACMS) encompasses an array of connected areas ranging from organizational leadership strategy to museum collection curation and event planning. For the purposes of this research, ACMS includes fine arts, arts and cultural organizations, and museum studies under its umbrella. The arts (also known as the "fine" or "high" arts) are distinct but not completely separated from the entertainment industry, though the general delineation is whether the organization is structured as a nonprofit organization (NPO) (Rosewall, 2022). This research will focus on applying a user experience research methodology to the nonprofit arts industry, which generally includes organizations such as museums, galleries, performing arts centers, festivals, and similar arts and culture groups or programs. It is easy to think of each area of an arts organization as its own insular field or specialty, but in attaching the idea of an arts ecosystem, the considerations of the field become interwoven and more connected.

Ecological language has been increasing in popular use, as reported by de Bernard et al. (2021). In this research, ecology is defined similarly, referring to complex systems where place, purpose, people, and resources intersect with the common purpose of creating or participating in arts experiences. It must also be acknowledged that there are multiple ecologies within the larger ecosystem of the arts. These larger arts ecologies exist everywhere that the arts are in a symbiotic relationship to communities and places. On a deeper level, every ACMS organization within the greater ecology is in itself an individual ecosystem focused wholly on the achievement of the organization's mission. Often, that mission involves the organization taking some form of action on behalf of or to reach a participant, whether that participant is defined as a patron, audience member, user, or another similar term. The term participant will be used hereafter to refer to and include all definitions of user, stakeholder, or audience. Potts (2014) prefers the term because 'participant' emphasizes participatory and community-oriented actors within a system. Potts continues to say that "while referring to people as users is easy, doing so undermines the notion of how centrally important participation has become to systems." Because the arts encourage and require participation beyond just consuming the experience, it is natural to use the term participant over user or audience.

In pursuing the engagement of participants, arts organizations subconsciously assume the role of user experience designer or practitioner. Throughout this paper, User Experience (UX) and Experience Architecture (XA) will be used interchangeably to refer to the field of experience creation and user-centered design. Of particular interest to this research are Service Design and Lean UX, which have been more recently developed to frame particular methods of crafting user experience. In the post-pandemic arts world, there is an even more pronounced need for arts organizations to invest in user-centered design from the top down and inside out in order to maintain audience and stakeholder investment. User experience is already being used to impact nonprofit engagement, though it is generally applied more in the digital landscape to create accessible web deliverables. Nonprofit organizations can benefit from the adoption of a UX methodology, applying theories such as iteration, agile development, and design thinking to achieve desired outcomes. Using principles of user experience research, a case can be made for arts organizations to invest in research that will benefit both their internal ecosystem and their positions in the greater arts ecologies of their communities.

Potts and Salvo (2017) posit that Experience Architecture is the most generalizable expression of creating an environment, and that it is necessary to understand ecosystems of activity when designing for experience. Instead of reducing the field of XA to a collection of individual design tasks, the smaller activities can be combined with their interactions to create an ecosystem of experience similar to the usability and ecological language connection proposed by Albers and Still (2011). Similarly, arts organizations are more than a summation of individual jobs; they are ecosystems of creation and experience, containing smaller systems of programming and outreach while existing within the larger environment of a community. These ecologies are a designed and architectural system of arts experiences, and if the ecosystem operates in harmony within itself and alongside other similar ecosystems, then the arts landscape of a community is able to sustain itself successfully. However, if participants cannot or will not interact with organizations within their arts landscape, the already high stakes for the arts organization's operations grow exponentially and the ecosystems begin to unbalance as they compete for resources in order to survive. Competition is a contentious term in the arts world, however, the reality of NPO arts organizations is that they are competing for similar resources,

such as participant attention and grants. However, competition can be alleviated through partnerships and programming adjustments for a mutually beneficial outcome.

When arts populations are in competition for resources and audience attention within a community or area, the organizations that are most successful are the ones that are able to set themselves apart while also achieving harmony with the other arts organizations within the ecosystem. User experience research principles can be used to design these distinctions and create order. The use of the word design is intentional; arts organizations invite creative participation from their audiences, it is natural to use words like design, create, or build to describe the process of user-centered arts experiences. Nonprofit arts organizations are guided by mission and vision, but at the core programming and events are guided by the desire to interact with their desired audience or participant. To that end, arts organizations are responsible for the experience of their participants and thus, they become UX practitioners. Although the fields of XA and UX have strong roots in digital and product design, the theory is translatable and applicable to arts operations and programming. This research will primarily focus on non-digital areas of user experience, though digital communications will be discussed as part of participant engagement in chapter one. Non-digital user experience focuses on the participant interactions at every touch point to cultivate relationships and empathy, which is desirable to arts leaders because participants that are invested in the programming and mission of the organization are more likely to become repeat consumers or donors (Wolf, 2022).

While arts organizations are inherently based in user experience, the shift to focusing every aspect of an arts organization on designing the ideal user experience for their participant demographics has yet to develop. Many museums are already starting to consider the user experience in exhibition and event design, but museums demand a different kind and quantity of participant engagement than a community theater or outdoor art event and thus, the user experience design for each needs to be nuanced and uniquely focused on the target participant demographic. This paper creates a case for nonprofit arts organizations to conduct intentional user experience research by borrowing methodologies and tools from the field of XA to craft a higher caliber of participant experience. This process begins at the formation of the organization and continues through programming and regular operations to reflective practices; it should be

the sole focus of every person involved. The interweaving of XA and ACMS takes a more proactive stance on problem-solving, preferring to anticipate participant needs than make retroactive changes. The ideal result is organizational homeostasis within and without the layers of ecosystems, achieved at minimal resource cost.

Arts organizations are required to balance the needs and wants of varied participant groups, ranging from reliable, regular participants to new demographic groups and audience populations. Balancing engagement for a variety of participants requires the careful crafting of engagement, communication, and experience. But before that creation can begin, a deeper understanding of the ecosystems and actors at work must be gained. And why shouldn't the arts subscribe to UX theory to better understand participants and the systems at work within their community? Just because arts programming is being offered does not mean that every demographic of participants will engage with it; organizations must adopt more user-focused research methodologies to understand not just who their target audience is, but how best to engage with that group of participants. Loyal patrons and new audiences must be consistently and constantly engaged at every level of the ecosystem to ensure the flow of resources and actors in and out of the arts ecosystem. Furthermore, navigating the arts ecosystems thus requires the active participation and dedication of everyone involved, and when focused on building enriching arts experiences, the organization becomes unified, organized, and competitive in vying for limited audience attention and public resources. While delivery of arts experiences in line with the mission and vision of the organization is the primary goal of ACMS practitioners, organizations also must compete within the larger ecosystem of their community and location for audience engagement and funding.

Since the foundations of user experience already exist within ACMS theory, borrowing tools and methodology from user experience and pivoting to a more research-focused approach to arts NPO management could solve common organizational failures before they take root. Arts organizations are charged with continuously operating under their mission and in line with their vision, but just because the arts are present and being offered does not mean that everyone in the community will participate. User experience theory provides new avenues for engaging successfully with participants, lending practitioners new tools and a user-focused framework to

use in designing experiences. This research will first overview the ecological framework as it can be applied to and defined in the arts. Within the framework of ecology, and with the goal of achieving sustainability in the arts landscape in mind, the research will then seek to create an argument for adopting XA tools and theory at several points of need in arts organization operations. The literature will be reviewed critically to identify areas of overlap in current practices within XA and ACMS. With the support of the literature, a needs analysis will then be completed to identify areas of highest need and opportunity for arts organizations. This will allow for the translation, development, and application of a UX toolbox for arts organizations to use to achieve their engagement objectives. The goal of this research is to make user-centered research and design methods accessible to arts organizations wishing to engage more with existing participants and grow their arts landscape presence to ensure their sustainability as an ecosystem actor.

CHAPTER ONE: ECOLOGIES OF EXPERIENCE

The arts landscape of a city or cultural area can be likened to a natural ecology; organizations operate in delicate balance with each other to keep resources and participants flowing in and out. Arts and cultural ecologies include, but are not limited to, performing arts programming, museums, art installations, cultural celebrations, and special events. They can also include sporting events, music performances, festivals, and pop-up experiences, though these may tend to be classified under 'for profit' programming. While these organizations and their programming offerings all live in harmony, there is also tight competition for resources and audience attention. This is similar to ecosystems in nature, where food chains and sympathetic processes operate between levels, contributing to the survival of the system as a whole. Arts organizations have similar layers and sympathetic processes and operate in partnership with one another even though they are competing for many of the same resources. Evolution has simplified some of these processes in nature, allowing organisms to thrive more competitively in the ecosystem. Arts organizations must undergo a similar process, by adopting experience architecture theory, to better cater to the needs and wants of the modern participant and thrive in their arts landscape.

Arts Organizations as Ecosystems

Arts organizations have previously used ecological terminology to describe their operations and their position within their greater communities (National Center For Arts Research, 2016). Arts organizations exist within large arts ecosystems built around place and community, and they are also their own systems of activity, programming, and strategy. These organizations create ecologies of experience with programming, events, and daily operations. The resulting model is a series of nested ecologies within one large ecosystem [fig. 1]. This is similar to the existing 2016 model from SMU DataArts, an organization dedicated to mapping the US arts ecosystem. The SMU DataArts model is a macro view of the same habitats presented here but aimed more at demonstrating the connection to governmental and public funding. For the purposes of this research, the governmental level of involvement in the overall arts ecosystem will not be addressed in detail. Instead, the focus will be on arts organizations and their positions within their given arts landscapes.

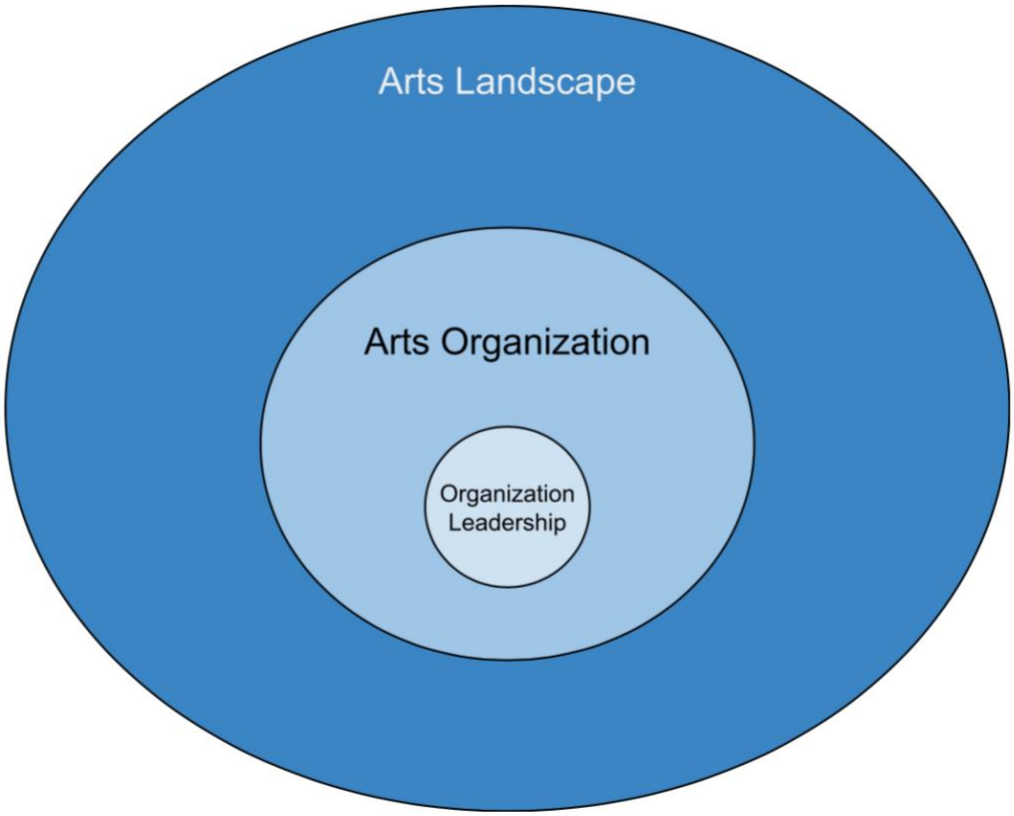

Figure 1 - A nested ecology within a larger arts ecosystem

At the innermost level, which would be like the energy production center of a natural ecosystem, the leaders and management of an arts organization balance the participant experiences of staff and audiences, as well as maintain operations. In the same way that the sun generates energy for all life on Earth, the board and its committees are responsible for the continuous survival of the organization. Extensive literature exists on the theory behind proper board leadership and maintenance because it is the highest area of potential downfall for nonprofit organizations. Because leadership and management are the central energy source, their decisions and evolutions affect every layer of the metaphorical ecosystem. If homeostasis can be maintained within the organization's epicenter, then further layers of operation and experience generation are possible. While this paper is primarily concerned with external participant experience production, it is important to mention the role of the internal participant experience. Many organizations rely on the "top down, inside out" method of investment in an organization and/or its programming (Wolf, 2024), which requires positive stakeholder (board member,

employee, and volunteer) experiences to function. If cultivated successfully, the radiating effects of stakeholder engagement can result in organizational success (Tschirhart, 1996).

The medium level of the arts organization ecosystem engages almost entirely with the external participant experience. In the natural world, this would be the overall habitat where living organisms interact for survival. Advertising, regular programming, special events, and all areas of outward-facing participant interaction live on this level of the ecosystem. Participants enter with expectations, and ideally leave with their needs or wants met by the interaction or experience they are provided with. This is where programming and communications are vital to the success of the organization, and it is the largest area of potential for user experience research application because it is all about interactions, specifically, participant interactions with any touchpoint of an arts organization. In this context, touchpoints refer to any point of contact between an organization and its patrons. Touchpoints range from transactional interactions such as box office or merchandise and concessions sales, to navigating a physical space or asking for assistance. Each interaction is an opportunity to meet expectations and build empathetic relationships, however, these are also moments of high risk of participant frustration or even alienation. This means that arts organizations must be aware of and pay close attention to the design of their digital, physical, and personal presence. While one solution for anticipating participant expectations is the detailed identification of audience demographics and desires, engagement must continue throughout the process of interaction and even afterwards as a reflective process. Heath et al. (2002) and others have attempted to go one step further, curating the environments of experience around particular pieces of art through intentional design of the space, or environment. This is a very intentional use of UX design in an arts space, which will be discussed in more detail in chapter three.

The final level of the arts ecosystem is the arts landscape, or the arts community as a whole. This is the level where the relationships between organizations and the role of the arts within city or community planning are the primary interactions of concern. Research into the types of organizations and programming already available in the ecosystem is vital for developing identity and unique offerings that will draw participants to experiences. Organizations lacking a detailed understanding of their place and role within the surrounding arts

landscape will be at a competitive disadvantage and at higher risk of failure. In nature, organisms flow to areas of high resource gain, but when those same food sources are depleted, other strategies must be adopted for survival. Similarly, organizations ready to meet areas of high participant demand must be aware of the landscape underneath the trends and should have a strategy ready to sustain operations when the ecosystem rebalances.

Arts organizations are their own ecosystems and operate alongside other similar organizations. In some cases, partnerships are possible for equal gain. For example, a local theater company can partner with a children's museum to put on mutually beneficial children's theater programming using puppets from the museum's collection. Or an art museum can partner with a local winery to source refreshments for a gala in exchange for promoting the vintner. Arts patronage benefits the community around it since increased foot traffic can lead to patronage at restaurants and shops in the surrounding area. These reciprocal relationships are part of the ecosystem's continued survival, even though there are layers of competition as well as collaboration. User experience research tools can help ensure organizational survivability by both pointing towards beneficial opportunities while also ensuring the participant base is engaged.

Experience Architecture as an Ecological Tool

Sometimes survival within an ecosystem requires evolutionary change to better navigate the competitive levels of an ecosystem. However, total change within existing arts organizations is a lengthy and careful process. A simpler method for strategizing ecosystem survival is the adoption of user experience theory and tools, which can streamline participant engagement, programming design, and aid in the avoidance of costly mistakes. Experience Architecture is the basic act of creating an environment, according to Potts and Salvo (2017), and employs the use of investigative practices in partnership with practical application and reflection.

Szabo (2017) recommends mapping as a key method of visualizing ecosystems or analyzing landscapes [fig. 2]. In Figure 2, a new theater is the center of the ecosystem, and radiating outward are the things driving its operations within the ecosystem - how, who, what,

when, where, why? - This visualization also allows practitioners to break down systems within an ecosystem to solve a problem or fill a need.

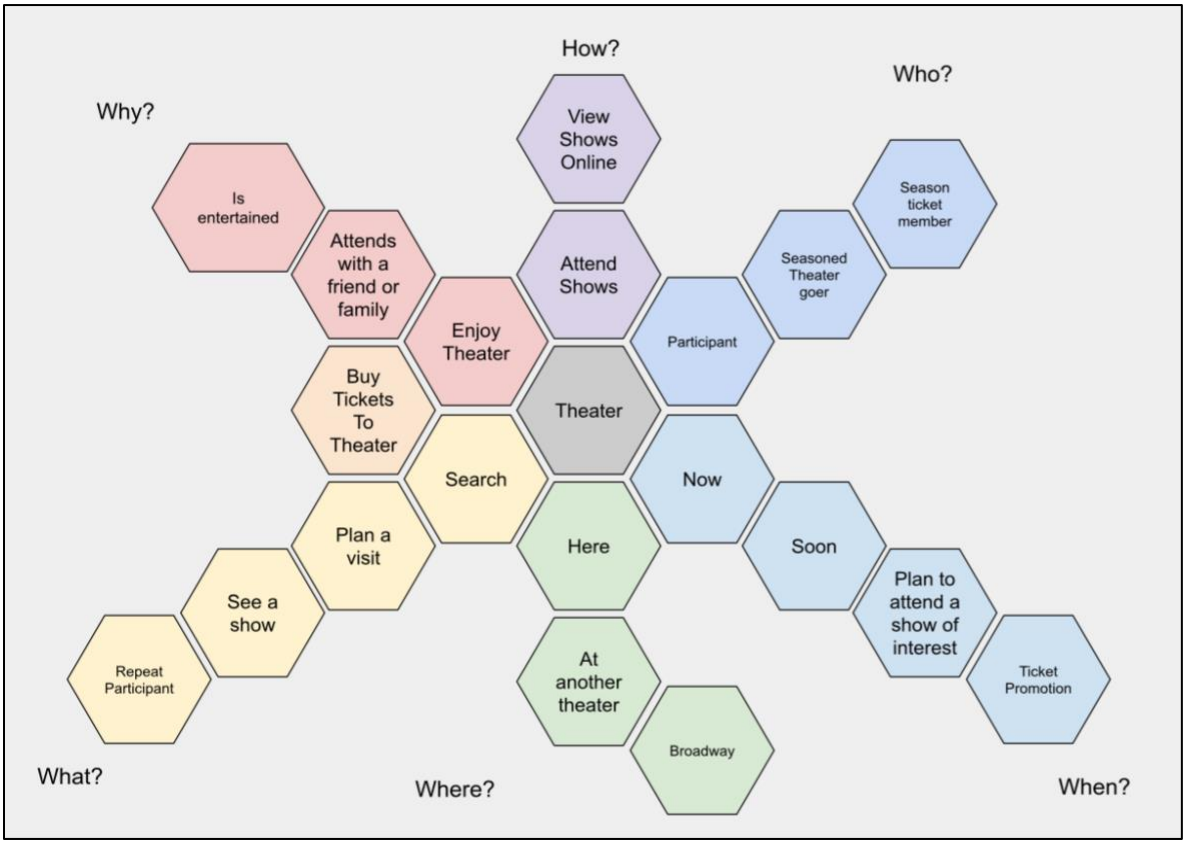

Figure 2 - An ecosystem map with a new theater as the central subject

Arts organizations can benefit from Ecosystem Maps because the map can frame the organization as a solution to a given need within the ecological landscape, and then place that solution into the greater context of user experience. The ecosystem map is organized around a central solution, which in the case of the arts can be the organization itself at the core, but the center can also be the solution to a problem, or the programming being idealized by the design process. The desired outcome of an Ecosystem Map is a visual representation of the arts landscape surrounding an organization and its programming. The map can help create a holistic strategy for programming and engagement, and drive innovation within the organization.

User experience theory can act as an ecological tool by refocusing operations on participant experiences at the planning stage instead of reactionarily when organizations identify mistakes or failures. XA tools can facilitate participant and ecosystem research at a lower

resource cost and ensure positive experiences at every touchpoint of an organization's operations. While this research and design can be undertaken by a UX team for hire, it is unrealistic to expect an outside design team to be able to meet every need of a nonprofit arts organization and it is also unrealistic to expect an organization, particularly a small community organization, to have the disposable resources available to hire a team for the length of time necessary for the design process. This means organizations must become their own multimodal UX researchers and be responsible for participant research within and without their organizational ecosystem. This research will draw from the framework of Lean UX and similar theories to design a simple, resource-efficient toolbox for arts practitioners to use in multiple areas of the organization.

CHAPTER TWO: REVIEW OF THE LITERATURE

The literature of both arts and cultural management and experience architecture is highly specialized by topic. However, the literature of ACMS is commonly aimed at startup advice for new organizations or leaders, while the literature of XA tends to either be definition overviews or a smaller text centered on a specific theory or new development in the field. The literature for this study was chosen based on relevance to the ecological framework laid out in chapter one, as well as to the overall frameworks of the two fields that are being interwoven through this work. This literature review seeks support for the argument that arts organizations need to adopt UX theory and tools in order to survive and thrive in their given arts ecosystems. It is first necessary to source field definitions and theory for both topics to scaffold this proposed connection, then identify tools and theory from XA that can be translated and applied to fill the existing needs in ACMS. This chapter will define both fields of study before reviewing the literature and identifying the areas of need and opportunity. This literature review will serve as the basis for the framework and toolbox that will be developed in Chapter Three. For the purposes of this research, the literature surveyed was limited to English language texts containing references to: Arts and Cultural Management, Audience Engagement, User Experience, Experience Architecture, and Ecological Contexts. One limitation of this review is that it could have included a wider variety of sources, however, this was not done due to the topic and project constraints. Both Arts and Cultural Management and User Experience are fractured topics in that they have been built out of other disciplines, which means that the literature available covers a wide range of topics within the scope of the field. Due to the topic and project constraints, much of the literature was excluded due to relevancy, but could be included in future studies with a wider scope.

Arts and Cultural Management

Arts and cultural management studies (ACMS) is the theory and practice of creative and usually nonprofit organization management. It comes from the combination of “arts administration” and “cultural management”, which are commonly used to mean similar things (Rosewall, 2022). Rosewall also states that “arts and culture” is commonly used to refer to any creative activity. While ACMS can include for-profit organizations, this research will only focus on literature involving NPOs. The characteristics of nonprofit organizations are well known, the

organization must be incorporated as a nonprofit by the state and government standards it is beholden to and must have a mission or purpose for existing. Wolf (2022) succinctly defines a NPO as a “private-sector organization with public purposes". Stein et al. (2022) define NPOs similarly, adding that the organization must have a public purpose which then generates a mission statement. The mission informs the goals and values of the organization, which in turn create the programming or experiences that fuel the arts ecosystem. Presiding over this process is the board of directors, who are responsible for overseeing the organization financially and preventing mission drift, but not actively running day-to-day operations (Stein et al., 2022). As discussed in Chapter 1, the day-to-day operations of the organization are the responsibility of operations staff and volunteers (Wolf, 2022). At its core, ACMS is the framework in which arts management and leadership live to facilitate the continuous operation of arts and culture organizations.

The establishment of Arts and Cultural Management as a field of study is a relatively recent phenomenon and is the result of two previously separate yet interrelated fields coming together. Even though arts and management are generally thought of as separate fields, artists acting as managers is hardly a new phenomenon. Brindle and DeVereaux (2015) cite William Shakespeare as one of the first examples of a creator who also acted as a manager in his own right, and thousands of artists have followed his lead since. Brindle and DeVereaux also define the field of arts and cultural management as one that borrowed heavily from other fields to establish itself. Shore (1987) was instrumental in applying business management theory to the arts, a practice that has continued today with scholars such as Byrnes (2022) and Rosewall (2022).

The practice of borrowing theory from other fields continues to this day as ACMS draws from topics such as business, communications, psychology, and user experience in order to evolve and grow as a field. The rapid rise in the consumption of art in the 21st century, made possible by the technological advances of television, internet, communication, and travel, to name a few, is another one of the contributing factors to the establishment of the field (Rosewall, 2014 and 2022). Because there is a higher demand for quality arts experiences, there is a natural need for arts management professionals and practitioners. According to the U.S. Bureau of Labor

Statistics, arts and design occupations are projected to continue growing at an average rate between 2022 and 2032, with the art director category of the report showing a slightly higher than the average increase in job demand for that period of time. Despite this demand, there are relatively few degree-granting programs for ACMS, and many arts nonprofit leaders may have degrees in other areas or equivalent experience in the arts industry.

Much of the literature available overviews the process of nonprofit management, both within and without the arts context. Wolf (2022), Rosewall (2022), and Byrnes (2022), all provide a handbook for the startup and operation of a nonprofit arts organization. One complication with these guides is a focus on retroactive problem-solving, or solving organizational complications based on previous mistakes. This can be done by case study or by storytelling, but the lack of emphasis on strategizing operations outside of the coined "strategic planning" activity that is a necessary part of arts and cultural operations is problematic because it perpetuates reactionary action instead of proactive planning. Wolf (2022) warns that survival-first thinking and operating can lead to mission drift because the priority of the organization is no longer on the audience and the mission outcomes. Tschirhart (1996) frames stakeholders as the key to organizational success, however, the text is structured around the idea of managing problems instead of proactively strategizing stakeholder engagement. Brindle and DeVereaux structure their text to provide solutions and warnings to future arts and culture leaders based on the scenarios addressed in each chapter. This does pave the way for some innovation in ACMS literature, and it also supports reaction instead of proactivity when it comes to anticipating and addressing operational challenges. There is some reluctance to use strategic tools outside of the realm of strategic planning, which is its own piece of the NPO operational process. This phenomenon will be discussed further in conjunction with UX literature later in this chapter, since UX theory and strategy take an opposite approach to problem-solving.

As previously mentioned by Brindle and DeVereaux (2015), the field of ACMS has borrowed heavily from other areas of study. One particular area that regularly appears in conjunction with ACMS in the literature is entrepreneurship. Byrnes and Brkić (2021) emphasize the vital relationship between arts management and entrepreneurship. Walter (2015) delves into both the economic and aesthetic aspects of being a "culturepreneur," which is a coined term for

an artist engaging in entrepreneurial or business activities, similar to an arts manager or leader. Entrepreneurship, or at least an understanding of the entrepreneurial process, is vital to organizations entering the arts ecosystem. Walter (2015) also reminds us that arts and culture organizations are vital to cities because of their programming's impact on the arts ecosystem. Hotels, restaurants, transportation and parking, and other shops or entertainment options benefit from arts programming or events.

The radiating effects of arts offerings generate competition within the existing ecosystems, as well as between cities and regions looking to draw crowds through larger, better, experiences. This phenomenon is appealing to the entrepreneurial side of ACMS, which seeks to create these better participant experiences through innovation using the methods and tools at their disposal. Hagoort (2003) and Walter (2015) both quote Peter F. Drucker's thought that innovation and management are inextricably entwined, and both sources believed at the time that culturepreneurship would be a massively growing trend in the future. However, Dobreva and Ivanov (2020) reported in their quantitative Scopus-led study of the literature pertaining to cultural entrepreneurship that while publications on the topic has been increasing since 2006, the literature is underdeveloped in key areas and terms that would indicate a relevant increase in the phenomenon of culturepreneurship overall. That is not to say that entrepreneurship in the arts is on the decline, however, it may be presenting itself in more subtle ways such as in advertising, communication, and organizational strategy. On the converse side, Bronfman et al. (2012) prefer to separate entrepreneurship and management entirely, providing a guide on how the nonprofit startup leader can transition into a manager after the innovation stage of creating an arts organization is done. This argument comes from a belief that management and leadership should remain separate, which is supported by Bathurst and Stein (2022) and Wolf (2022). However, arts leaders sometimes do not have that luxury and must take on multiple roles or responsibilities within an organization, particularly a smaller one.

One area of the literature that warrants further study is audience research and engagement. While this might be assumed to be one of the primary areas of concern for ACMS, it takes a backseat to other topics, usually fundraising and development. Audience engagement is a newer and fractured topic, according to Walmsley (2021), existing somewhere in the

Humanities between arts management and media studies. Walmsley also argues that audience engagement is "a philosophy underpinned by an audience-centric ethos that recognizes audiences as equal partners in processes of artistic exchange and understanding," meaning that organizations can (and should) think of audiences as equally involved in the process of participant experience. Tschirhart (1996) refers to audiences as stakeholders but proposes a formula for the engagement and retention of the stakeholders and connects successful engagement of stakeholders to ecological competition and survival. Reiss (1992) writes on the value of audience engagement, but notes that at the time of publication it was a new concept borrowed from marketing and product sales. Kolb (2013) takes a marketing approach to audience engagement, arguing that a strong marketing strategy will gain organizations the competitive ecological edge they are seeking. Reiss uses audience engagement as a means of finding funds for arts organizations, and makes the clear point that engagement simply works. Whether that means employing a bold marketing campaign or strategically targeting new audiences, there is evidence for a connection between intentional participant engagement and organizational success (Reiss, 1992). While that is still true today, the stakes of engagement are now higher due to the internet, social media, and the constant chatter of advertising that we live with. Organizations must now be strategic, intentional, and oftentimes innovative in how they attempt to engage with audiences. There are few literary sources on this process for arts managers to use, but tools and methods can be borrowed from other fields, as we will discuss in more detail in chapter three.

In summary, the literature of Arts and Cultural Management is largely composed of introductory or startup information, case studies for problem-solving and risk management, and entrepreneurship and innovation. There is a need for further development in strategy and audience engagement. In regards specifically to strategy, the main references to this topic are to strategic planning. Audience engagement often presents itself in conjunction with other topics but could be developed further as its own area of study. There is a large need for literature on how to identify, research, and subsequently engage with audiences within an arts context.

Experience Architecture and User Experience

Experience Architecture (XA) and User Experience (UX) are intertwined but not exactly the same. Potts and Salvo (2017) describe XA as the process of creating an environment and an emerging context for the use of research and practical skills. Potts and Salvo further describe XA as the process of building structured systems, not unlike the ecosystems introduced in the chapter 1, in order to facilitate communication between those using the system. Potts and Salvo apply the idea of ecosystems to the field of user experience when in conjunction with the field of rhetoric, so that practitioners can understand the functionality of the collective system instead of the individual actors or processes contained therein. They also make a case for "a need to build the user experience around people, rather than around the product or process that those people will be using" and call for active engagement of audiences in experiences. While XA is the practice of architecting experiences, UX is "the totality of the effect or effects felt (experienced) internally by a user as a result of interaction with, and the usage context of, a system, device, or product," according to Hartson and Pyla (2012). Hartson and Pyla add to this definition in their 2018 text, saying that "user experience is the totality of the effects felt by the user before, during, and after interaction with a product or system in an ecology," meaning that the UX process includes the anticipation, experience, and reflection on an interaction [Fig. 3].

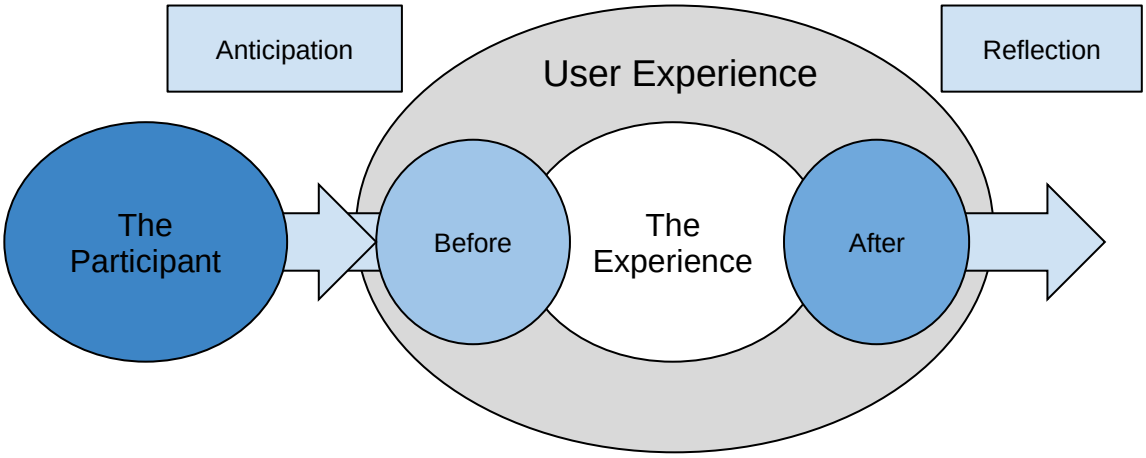

Figure 3 - The process of experience, including anticipation and reflection

Leah Buley (2013) defines UX as "a set of methods and techniques for researching what users want and need, and to design products and services for them." UX is essentially the study of the user and their experience interacting with whatever is being created or communicated to

them, and XA is the practice of designing systems for how these experience interactions will take place. UX shows the designers what users love or hate about experiences, and XA considers how those experiences manifest. While the terminology used for and within XA and UX is fluid and shifting, what remains constant is the focus on the experience of the participant, or user.

Potts and Salvo (2017) say that similar to ACMS, XA is a relatively new discipline and has borrowed theory from other fields such as computer science, rhetoric, and psychology to establish its identity. Those influences are still seen today, and it is at a point where further study is deriving and defining further theory and framework while the literature of ACMS is still finding its feet. Some of the literature surveyed included broad definitions in the text, such as Buley (2013), Hartson and Pyla (2012) and Lidwell (2015), which were essential for defining the key concepts of the field. Buley (2013) approached UX in the most user-friendly way, and her presentation of the UX toolbox is most accessible to newer UX practitioners. Buley's toolbox will be examined further in the next chapter. Hartson and Pyla (2012) provided the most in-depth view of the UX process with guidelines for designing quality user experiences and included UX in conjunction with other academic disciplines, such as sociology, psychology, and engagement. Lidwell (2015) provided a more visual guide to UX theories and tools, and though this was less detailed, made the tools easier to translate into other contexts for the purposes of this research. UX theory is relevant to this research because it provides the methodology that will be used to fill the needs identified in ACMS literature.

The main themes of the literature surveyed fall under design. There is a direct relationship between XA and design since the field relies on different design methods to engineer systems of experience. Design is a partner in almost all areas of UX and XA, from the research stage to the way feedback is sourced on a project. Design is also present in strategy, systems, and communications because they are intentionally crafted by the UX practitioner to serve the needs of the user. Subcategories of design include, but are not limited to, graphic design, design thinking, service design, and research design. Graphic design was present in the general overview texts already discussed above as well as discussed in conjunction with user-focused research by O'Grady and O'Grady (2017) but was not included as a main area of investigation in this research. More relevant to this work was design thinking, which inspired service and

research design. Design thinking is an interplay between diverging exploration of problem and solution space, and converging processes of synthesizing and selecting (Gurusamy et al. 2016). It is also the act of shifting from a problem-solving focus to a creative and iterative process. Design thinking encourages creativity and innovation in interdisciplinary approaches to projects and user-centered solutions. Srinivasaraghavan et al. (2016) pairs design thinking with future thinking, which is at odds with much of the other literature, which prefers to focus on the present problems and requirements. However, this combination can be useful to the notion of strategy, especially as it is defined in an arts context. While not necessarily in line with the future thinking of Srinivasaraghavan et al. (2016), Levy (2015) uses strategy and design thinking to discuss how practitioners can devise digital products that appeal to users, which is like a future thinking approach. Levy defines UX strategy as the vision of a solution that needs to be validated by research to prove its value to users and emphasizes that the purpose of the strategy is to get customers to realize the value of interacting with the product or experience being offered.

UX strategy combines business strategy, innovation, research, and UX design in the model that Levy provides, and even draws from ACMS theory by interacting with the business canvas, a common tool used by arts organizations to strategize opportunities in the field. Levy further bridges the gap between ACMS and UX by discussing entrepreneurship and engagement, which will be explored more later in this chapter. Though focused more on modeling as specifically a methodological tool, Young (2008) addresses strategy and user engagement through the tool of mental models. Young's approach to strategy dives deeper theoretically than either Levy (2015) or Srinivasaraghavan et al. (2016) but emphasizes the necessary empathy for centering the user within the notion of strategy. Strategy is a key part of the UX process, and vital to service design because it creates a clear map for how to get ideal user experiences into practice once they are ideated.

Polaine et al. (2013) position service design as separated from product design in that the service does not necessarily relate to selling products, as might be assumed from a business perspective. The reality is that even if there is a product involved, the organization is still selling a service. The service is also not limited to individual touchpoints of the organization or even of the singular service desired; the participant "experiences in totality and base their judgment on

how well everything works together to provide them with a service" (Polaine et al., 2013). When measured correctly, we can prove that service design results in more effective employment of resources, which can be related back to the ecological success discussed in chapter one. Stickdorn and Schneider (2010) delve further into service design, defining it as an interdisciplinary approach, but shying away from defining it as its own field. Instead, the authors posit that service design is a new way of thinking, rather than its own discipline. Hartson and Pyla (2018) support that service design and service experience are not their own disciplines, merely specialized applications of UX where the designer is operating within a framework of transactionary relationships to solve a goal for a user. The core principles of service design are user-centered, co-creative, sequencing, evidencing, and holistic according to Stickdorn and Schneider (2010), and these principles overlap with key elements of other UX theories such as design thinking, agile methods, and Lean UX.

Lean UX, as coined by Gothelf and Seiden (2021), is borne out of agile design theory and combines design, entrepreneurship, and innovation. According to Hartson and Pyla (2018), "agile process is driven by needs formulated as user stories of capabilities instead of abstract system requirements and is characterized by small and fast deliveries of releases to get early usage-based feedback." Agile UX prioritizes responsiveness to change and iteration, rather than keeping to a rigid project process. Lean UX builds on these methods by adding emphasis to user empathy, combining design tools with agile methods, and making the process inclusive to the entire design team. Put simply, the main goal of Leak UX is to eliminate waste in the design process. Elimination is achieved through ensuring that the problem being addressed is being solved in a meaningful way to customers, and by designing the user experience as a team instead of individually through assigned tasks or areas of work (Gothelf and Seiden, 2021). This is resonant of both the user-centered and co-creative values of service design. It also means that design teams take a more iterative approach to save time and labor, that they prioritize responding to change over following a rigid plan, and that user empathy is at the core of the design process. Levy (2015) reminds us that lean doesn't have to mean missing pieces, it means prioritizing involving the client in the iterative process and eliminating waste. Gothelf and Seiden (2021) also emphasize moving away from a deliverables-focused approach to instead work toward the outcome of the project, which is also centered in service design thinking. Even

though Buley (2013) doesn't directly use the terminology of service design or Lean UX, her methodology of laying out the UX process in such a way that a single person can begin to undertake the roles of a full team on their own is rooted in Lean UX and agile methods. Buley also emphasizes the importance of research, which is another vital branch of UX theory.

Research design is a broad topic within UX because it refers to both the mechanics of designing research methods or tools, as well as the process of research within UX projects. Cresswell (2014) is a direct manual for designing research projects and methodologies, and Hartson and Pyla outline research methods in both their 2012 and 2018 texts. Research is vital to the success of the UX process and is the natural first step for design teams. Ryan and Potts (2015) note that there are many terms and micro methods being employed to practice participant-focused research, and industry is slow to adopt many of these concepts due to this fragmentation. As a solution, Ryan and Potts encourage becoming strategists instead of pure researchers. Some of the methods employed by UX researchers include ethnographic study, qualitative analysis, and quantitative data collection. For the purposes of this research, ethnographic study is the most relevant because that area is primarily concerned with audience identification and the information determined can inform UX strategy that will then serve as the baseline for experience architecture and design. Hartson and Pyla discuss ethnographic study in their 2012 text but qualify that it needs to be supported with other methods to be relevant to the UX team. Lean UX pushes back against ethnographic study because it has the potential to waste time and resources. However, ethnographic study may be valuable when discussing UX research methods in conjunction with arts and culture audience engagement. Potts and Salvo include a chapter on ethnography as a research aggregator, describing it as a bridge between contextual design and qualitative information to reconcile the collected data.

On the other side of research design, tools for gathering and processing user information are being developed. Indi Young (2008) uses mental models as a research tool, inspiring confidence, clarity, and continuity of the outcomes and strategy of a UX project. Peter Szabo (2017) builds on this theory of mental models and uses mapping in different ways to perform research, altering the type of map to fit the type of research being done or the UX team's desired outcome. Mapping is a useful method of centering the user within the work being done to

visualize the desired outcome of the project. Nielsen Norman Group posits that user research is the most vital part of any project because without a concrete understanding of the users at the center of the work, there is no UX. Without curated experiences, participants have little incentive to interact with a product or service (Loranger, 2014). Baxter et al. (2015) give the most comprehensive overview for specifically user-centered research design, which is a more detailed and UX-focused approach than Cresswell (2014).

It is impossible to discuss UX without mentioning accessibility and usability, two core tenets of the field. According to Lidwell (2015), "the principle of accessibility is that designs should be usable by people of diverse abilities, without special adaptation or modification." Usability, on the other hand, "applies to all aspects of a system with which a human might interact," and has five key attributes: learnability, efficiency, memorability, satisfaction, and be error free or recoverable if there is an error (Nielsen, 1993). Essentially, accessibility is ensuring that your product or service is as barrier-free as possible for your desired participants, and usability is ensuring that users can navigate the experience of the product or service once access is gained to it. Hartson and Pyla (2012) spends a significant amount of time breaking down accessibility and how vital it is to the UX process. (something else here). Geisler (2013) argues that usability that focuses too heavily on efficiency fails to observe what effectively engages the participants, which can also be a concern with Lean UX and agile methods. Potts and Salvo (2017), among others, relate accessibility to architecture and space design, which will be discussed further in chapter three. Every source reviewed for this research touches on either or both accessibility and usability in some way since it is a core focus of engaging with and providing for diverse audiences.

In summary, the literature of XA and UX is largely composed of theoretical frameworks and definitions. The field is well-established and branches off to other fields or reinforces natural connections between similar topics. Further developments can always be made in terms of practical guides for UX designers, especially those entering the field from other disciplines. There was less literature available on the practical application of user-centered communication techniques, the focus was more on marketing or communications through the lenses of other areas of UX that were not relevant to this research. Additionally, more research could be done to

identify UX within other fields, using terminology and frameworks from XA to make those connections. Further research could be done on audience or participant engagement since that topic of UX is subject to the most rapid change as audiences and technologies quickly advance.

Areas of Overlap

ACMS and UX overlap in several areas. First, in the idea of clear branding. While in the arts the brand is much more forward and important because of its relationship with mission, vision, and values, it also plays a role in UX design. Hartson and Pyla (2012) push against the importance of branding, but Levy (2015) calls for a strategic deployment of brand assets to engage participants. Another area of overlap is in a need for entrepreneurship at every level of design or management, which is supported by several sources such as Hagoort (2003), Rosewall (2014), and Gothelf and Seiden (2021). Entrepreneurial thinking encourages agility, flexibility, and strategy, avoiding pitfalls such as reactionary thinking and retroactive problem-solving. Another area of overlap includes storytelling and empathy, particularly as it pertains to the design process. Both the arts and user-centered research rely on empathy toward participants to craft ideal experiences with a clear outcome in mind. The focus on outcomes is encouraged by Gothelf and Seiden (2021) because it helps move away from a results-based or transactional approach to service design. Another area of overlap is communications, though more research is needed into this area on both sides. There is a noticeable lack of literature for ACMS practitioners in the area of communications, and resources must be drawn from other disciplines. Though there is a wealth of research available on communications design and the rhetoric of communication, the field of user-centered communication design is still a growing discipline.

The final point of agreement is that the crafting of experiences is the responsibility of the entire team, from the top down and inside out. Potts and Salvo (2017) say that “if we see a user’s experience as the sum total of all the touchpoints a person might have with an organization, we can also see that UX is something to which everyone in the organization must contribute.” This means that successful XA must consider the entire team as an operational unit, not just a summary of unrelated design jobs. While this is less evident in the ACMS literature surveyed for this research, it is a universally understood principle of the field that the audience experience can be affected at every level of an organization. The Nielsen Norman group affirms that UX is

everyone's responsibility, and that coordination must be achieved among multiple disciplines within a project and even within the greater scope of an organization (Loranger, 2014). When discussing staffing and hiring practices in the literature, this is the first place that user experience (though it isn't referred to by that name) is considered; all staff must be trained to deliver ideal experiences and assistance to patrons to keep the participants' opinions of the organization or programming as high as possible. Stein et al. (2022), Rosewall (2022), Byrnes (2022) and Wolf (2022) all touch on the connection between staff and volunteers and the audience experience, though more research could be done in the future to develop that area further.

In the next chapter, we will discuss translating and putting into practice tools from UX research and theory in an arts context. Some literature already discusses areas of potential toolbox overlap between the arts and UX. Almeshari et al. (2019) use the UX tool of creating personas to perform user-centered research on museum visitors. Bollo et al. (2017) performed a study with the goal of centering audience experience in the arts in a specific arts ecosystem, using user-centered research design to achieve the desired research outcome. Heath et al. (2002) drew on UX design principles to create an interactive art exhibit that would achieve desired audience participation outcomes through its intentional curation of the literal ecosystem of the room. Many arts organizations are experimenting with sensory and interactive experiences, engaging with participants in non-traditional ways. When organizations innovate and create in these new ways, they are unknowingly drawing upon UX theory and acting as UX practitioners. The next logical step is to scaffold a stronger understanding of the tools and frameworks available, in order to aid in designing stronger and more user-centered arts experiences.

Needs Analysis

The objective of this needs analysis is to identify opportunities that arts organizations should capitalize on, and recommend solutions based in user experience theory. Although a common need associated with arts organizations could be assumed to be funding, monetary subsistence is closely related to participant engagement (Reiss, 1992). Most problems or areas of need and the opportunities for capitalization can be attributed to participant engagement. Ticket or merchandise sales, donations, event attendance, and continuous interaction with the organization all depend on effective, strategic engagement within the arts landscape and with participants both already inside and waiting to be invited into the arts ecosystem. Opportunities

to design better participant experiences exist at the organizational planning stage, in daily or program operations, and in the periodic reflection and growth of the organization.

Organizational planning is mainly concerned with the development of the mission, vision, and values. A mission statement is necessary for classification as a 501(c)(3) organization and is really the first step to incorporation. Without the mission, the organization has no purpose or plan for its operation. If developed broadly, the organization can undertake a wide scope of activities. This comes at a risk, because there is a likelihood of mission drift or even failure in extreme circumstances. However, if the mission is too narrow, the operations of the organization are restricted, and rebranding becomes a more distinct possibility in the future (Wolf, 2022). When planning the mission, vision, and values of an organization, it is necessary to do research on the arts landscape and the ecosystems already at work in the proposed area of operation. Understanding the existing flow of resources and opportunities is key to balancing demand and creating unique offerings. To address needs in this area, tools from UX research design can be used to identify audiences and their specific needs, as well as bring in a deeper understanding of the arts landscape around an organization. Strategy is key here, because the application of strategic tools outside the realm of the specific task of Strategic Planning is relatively new to the field. Participant-centered strategy allows practitioners to anticipate needs and project outcomes, instead of planning for a transactional or piecemeal experience. There has long been a Field of Dreams mentality when it comes to the arts, and that if you build it, they will come, just because it is art. However, that is becoming less true (Hagoort, 2003). Today's audiences and arts ecosystems require intentional and careful design to ensure not just organizational survival, because as Wolf (2022) reminds us, that can encourage mission drift, but also the thriving growth of an arts organization.

The main area of opportunity for arts and cultural organizations is in participant engagement; however, that is a multi-faceted need in that the problem of engagement is related to multiple areas of the arts landscape and the organizational ecosystem. Participant engagement starts with understanding the audiences that the organization is attempting to interact with, and the greater ecosystem that the organization is situated in. While the second level is focused on research and planning for the audiences that will be targeted, the first level requires anticipation of participant needs and proactive problem-solving instead of retroactive action. At the external

user level, there is a massive need for understanding the nuances of participants in regard to programming, event planning, and touchpoint interaction. At the root of the issue is a large need to understand participants; how they will interact with an organization, and what kinds of experience expectations they will enter with. This can be addressed through the adoption of several UX tools, including strategy and research. But even though the planning stage needs can be solved almost solely through research design techniques, the needs of the daily or programming operations need to be addressed through more practical skills application. This is an area where arts leaders and managers will be called upon to act as UX practitioners and must center the participant in every operational development. Touchpoints of the organization are critical at this stage, but the touchpoints must be considered part of a greater whole that is the responsibility of every staff member and volunteer (Polaine et al., 2013).

The final area of need is stronger measures for reflection within the arts context. Reflection is part of the iterative process, to continue within a growth mindset and keep innovating within the parameters of the organization, there must be an awareness of how participants and stakeholders view the organization and its programming. It must be acknowledged that strategically involving participants in reflective practices can be a huge undertaking in the arts, but the value of this feedback is extremely high to arts organizations. Norman (2007) defines emotional design as a summation of three categories of design: visceral, behavioral, and reflective. Though Norman is primarily concerned with empathetic product design, he briefly touches on the application of his theory to performing arts offerings. The participant experiences the arts viscerally, through consumption of and interaction with the art as intended by the creator and the host organization. However, getting the participant to the point of visceral experience requires careful application of behavioral design. Once the experience takes place, then attention must be given to reflective design to aid the participant in cultivating a relationship with the organization and the experience while also providing helpful feedback to the organization. Norman's approach, though only briefly touching on the arts, is a steppingstone toward developing concrete recommendations for meeting the reflective needs of arts organizations. To address the need for reflective data collection, solutions can be pulled from Lean UX to bring in more user feedback along the journey of experience, rather than just post-experience. Other solutions can be drawn from the experiential design of a space or using communications strategy to draw out the feedback needed.

In summary, the main area of need for ACMS is a stronger understanding of audiences, what participants desire or dislike, what their goals for experiences are, and how they can be engaged best. Opportunities for research on engagement present in the planning stage, daily and programming operations, and in reflective practices. All three of these areas can draw from UX methodology to solve their needs, using tools outlined in the next chapter.

CHAPTER THREE: TRANSLATION, APPLICATION, NEXT STEPS

To address the identified need for a stronger understanding of the participant in an arts context, the solutions come from two areas: research, and implementation. Research tools common to the field of XA can be translated into an arts context and applied to either area of need to bridge the gaps of user experience. In this chapter, several tools will be outlined for practitioners to adopt and use to address the specific needs of their arts organizations, whether the needs come from planning, operations, or reflection. These tools are translated or related to design, since design and innovation are inherently related to the arts and organizational operations. The following UX toolbox should be considered methods to achieving desired audience outcomes and can be integrated into existing planning strategies depending on which tools are used and why [Table 1].

To contextualize the toolbox put into use, consider the example of a traveling art exhibit, such as a special collection on tour. Traveling exhibits can be an exciting audience draw for many arts organizations. However, it is easy to make the mistake of assuming that every audience demographic will be drawn by an event simply because it is there. Participant engagement begins with the communication and advertisement of an event and contributes to building the expectations of experience audiences will enter with. When the expectation doesn't match what is experienced, there is a high likelihood of disengagement and alienation. For example, a traveling exhibition aimed at children and families should be installed in a way that children and families can navigate and interact with it. Placing screens, interactive displays, and signage in locations that only adults or taller participants can access depletes the experience for other audience demographics and decreases the likelihood of a positive participant interaction with the space. The UX toolbox can be employed at several different levels of this example, depending on the desired outcome and the complexity of the problem at hand. But most importantly, the largest problems could be identified through participant testing and iteration of the exhibit design.

TOOL	PHASE	OUTCOME
Testing and Iterative Design	Throughout	Quicker project design, continuous improvement and problem-solving
Landscape Analysis and Field Study	Planning	Understanding of the arts landscape and the competitive factors within it
Canvas	Planning	Deeper understanding of the opportunities and challenges within the ecosystem
Personas	Planning	Clear picture of the audience demographics
Heuristics	Design/Reflection	Evaluation of usability and accessibility of space and experience
Affinity Diagrams and Card Sorting	Throughout	Collaborative brainstorming process, data sorting according to trends, prioritization of features or problems to be solved, reflection on process
Mapping	Design/Reflection	An effective audience engagement plan, an understanding of how the space is used by participants, a clear picture of where the pain points or frustrations of programming
Mental Models	Planning/Reflection	An experience that matches the expectations of participants, and a map showing the needs of the audience versus the needs of the designer or the audience

Table 1 - A table explaining the proposed toolbox, the phase at which they can be best used, and what the desired outcome of using the tool is

Experience Testing And Iterative Design

In the world of UX, the testing phase is where the product is examined to ensure that it does what it is supposed to do, and to observe how users interact with said product. However, this idea can be overlooked when translating experiences out of the digital sphere. In theater, there are multiple types of rehearsals that serve as the testing space for the final performance product. Harder to imagine is taking the time to perform a dress rehearsal for the opening of a festival, gallery, or museum exhibition. Sometimes this is due to time and resource constraints, but also can simply be impractical. However, testing should be performed where possible to identify errors and gather early data about how participants interact with the experience. The most powerful tool for testing is gathering data by observation. There are micro methods for performing observations, such as task analysis, interviews, and surveys. Affinity diagramming can also be used, either on its own as a data collection tool, or to code and sort the information sourced from participants. A task analysis is a key tool for understanding how users interact with a space, product, or service. Through observing participants as they organically interact with something for the first time, practitioners can learn more about how audiences will use or experience something. This is often overlooked due to resource constraints, but ignoring the task analysis can lead to the violation of critical experience heuristic.

Part of the UX testing cycle is iteration, which is the process of repeating a set of operations until a specific result is achieved (Lidwell, 2015). In the context of the arts, iteration could take the form of early testing of a space on desired participant demographics, revision according to feedback, and then further design of the project. This process can be repeated even through the presentation of the final experience, making small adjustments according to pain points or feedback observed during participant interactions. Lean UX encourages the use of the iterative process, preferring to get product or experience concepts into the hands of the clients and users as they are developing, instead of waiting for a refined product to finish. This eliminates waste by avoiding the need to completely revise, preferring to make smaller changes as the iterative process progresses (Gothelf and Seiden, 2021). Because of the labor of love involved with the presentation of arts programming or an experience, it can be a default reaction not to iterate after the final presentation of the project. However, it is not a concept to shy away

from, since iteration can address participant frustrations quickly, sometimes before they become large problems.

Landscape Analysis and Field Study

In the UX world, the Landscape Analysis tool goes by several names, including competitive analysis, business model analysis, and opportunity analysis. Because of the ecological framework this research is situated in, landscape analysis will be the term used to describe the process of gathering data about the surrounding arts ecosystem. “Is a qualitative user research method used to compare strength, weaknesses, and gaps during early planning for developing new or improving current technologies” Is it meant to be shared with key stakeholders, typically internally to the organization, which would be the board and key staff members of an arts organization (Alvarez et al. 2021). The landscape analysis contains comparative analysis on other organizations or programming in competition with the arts organization, comparing key opportunities, weaknesses, needs, and challenges. It contains three parts: data gathering, comparative analysis, and field study. Data gathering primarily uses public sources, such as the internet and other widely available data, but can also use distance research methods such as surveys. Another method of sourcing data is field study, which involves physically gathering more data in an environment to pair with what is on paper. This allows practitioners to understand not just the numbers, but the behaviors of the environment and its competing factors.

The first step in a landscape analysis is to define the geographical boundaries of the arts landscape. Once the region is identified, demographic data can be sourced to gain a baseline understanding of the people living in and around your arts habitat. Then, the main industries and advantages of the area can be found. For example, is the area you are servicing known to be an industry town of a particular nature? What are the main imports and exports? Next, identify what audience draws exist within the area. Are there professional or amateur sporting teams? Large scale arts production venues? Festivals?

The next level is determining what other arts organizations are providing similar or competitive experiences in the landscape already. According to Baxter et al. (2015), this analysis

should include the features, strengths, weaknesses, and operations information available for these competitors. Levy (2015) suggests further stratifying the information by indirect or direct competitors, depending on how much audience overlap there is. Levy defines direct competition as, “companies that offer the same, or very similar, value proposition to your current or future customers,” meaning organizations that are almost identical in terms of offerings and audiences. Indirect competition is where organizations have similar offerings but aimed at different audience demographics, or serve similar populations with different offerings (Levy, 2015). All of this information can be collected in a matrix sheet to keep the data readily available and organized [Table 2]. The end result of this landscape analysis should be a detailed understanding of the landscape around the organization, and where opportunities in the community lie for the organization to fill needs or wants of audiences. There is a small focus on competition in the use of this tool, since the term is used to describe any organization providing similar services or appealing to similar audiences. However, competitive organizations could also be identified as collaborators or partners given the right context or if a similar short-term opportunity is being pursued.

Direct or Indirect Competition?	Competitor	Purpose	Audience	Weakness	Other (ticket price, funding info, etc.)

Table 2 - A matrix demonstrating a landscape or competition analysis

In addition to gathering data through the internet and other sources, it is important to participate in active field study to add behavioral information to the paper data. Methods can include pure observation, interviews within the community, surveys, diary studies, and photographs or videos of the actors and experiences within an environment. Some of these

methods are relatively easy to achieve just by spending time in the arts landscape, while others take more time, effort, and resources to achieve. Whichever method you choose to employ, the desired result will be a deeper understanding of not just who the desired audiences are in a given arts landscape, but how they behave and what their expectations of an experience are. The landscape analysis serves two functions: to gather data about the ecosystem that the arts organization exists in, and to identify the needs of participants already within the ecosystem. From there, other tools such as the canvas or SWOT analysis can be used to translate the gathered data into strategic information.

Canvas

This tool is already in use within ACM spaces; however, it is worth briefly discussing as it can serve as a next step in the planning process by translating the information from the landscape analysis and aid in the organizational planning stage. It can also serve as a strategic tool for identifying audiences not already in the ecosystem of experience. Levy (2015) recommends the canvas as a rallying point for designer hypotheses about the audience and their needs, as well as a method of identifying possible relationships and partnerships that are critical to a successful user experience design. According to Levy, who draws on Osterwalder and Pigneur's nine essential building blocks of a business model, a canvas should include boxes for: key partners, key activities, key resources, value propositions, customer relationships, channels, customer segments, cost structure, and revenue streams. Some of these elements are less relevant to an arts organization but are translatable, which led to the publication of the ArtSpark "Arts Business Canvas" in 2016 [fig. 4].

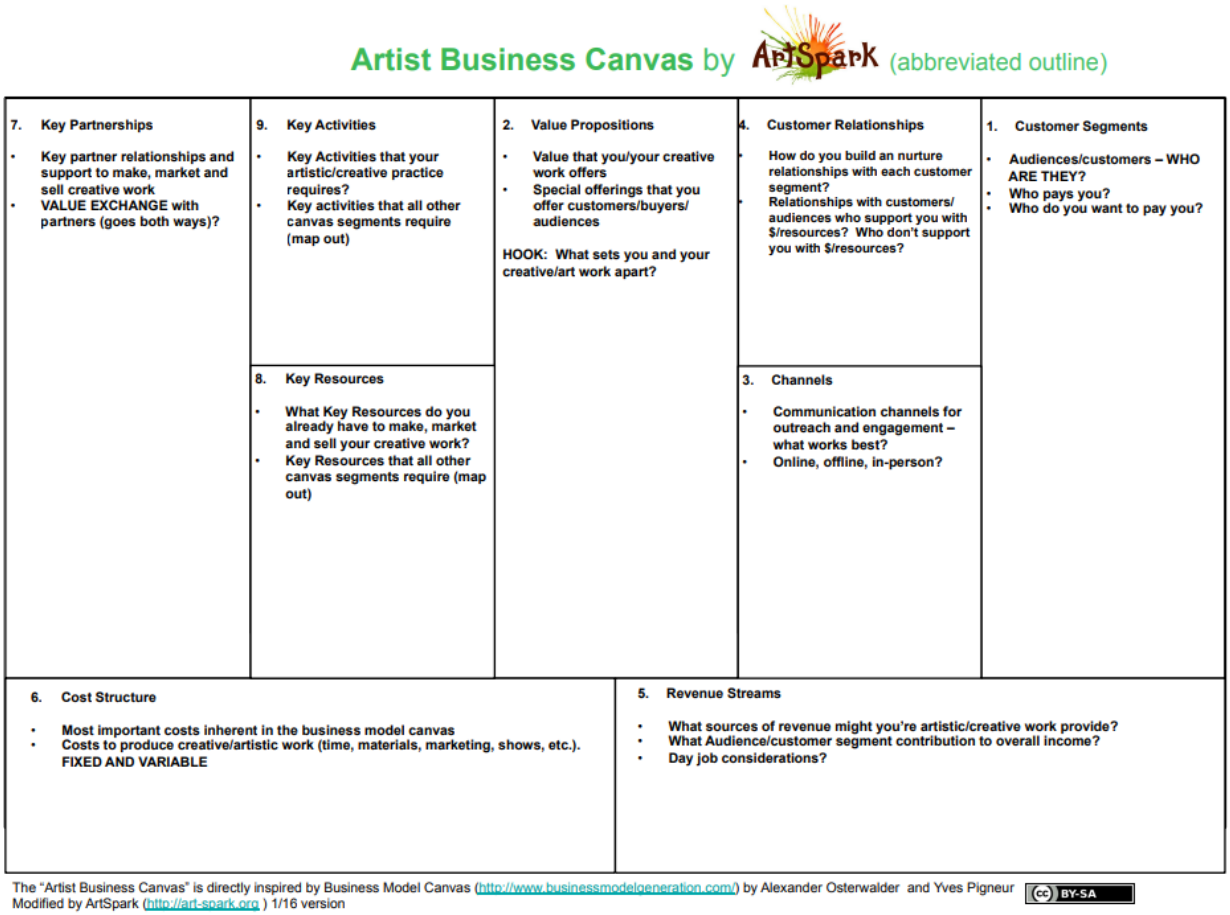

Figure 4 - Arts Business Canvas by ArtSpark, translated from Osterwalder and Pigneur's original business canvas model

Personas

The next tool for understanding participants in relation to the arts product or experience being offered is personas. However, it must be noted that personas can become time and resource consuming if focused on too heavily. Agile UX methodology leans away from personas for this reason, however, due to the need for an empathetic understanding of potential experience participants, they are a useful tool for practitioners. Personas are archetypes that describe the needs, goals, and behavior among potential users, according to Goodwin (2009). Personas serve as detailed snapshots of your participants, encapsulating critical behavioral data in a way that it can be used in designing experiences. Whether created digitally or physically on a poster or white board, the persona should include a name, photo, desires or goals, and a narrative that

touches on the background, frustrations, attitudes, and any other information that affects behavior or expectations of experience (Goodwin 2009) [fig. 5].

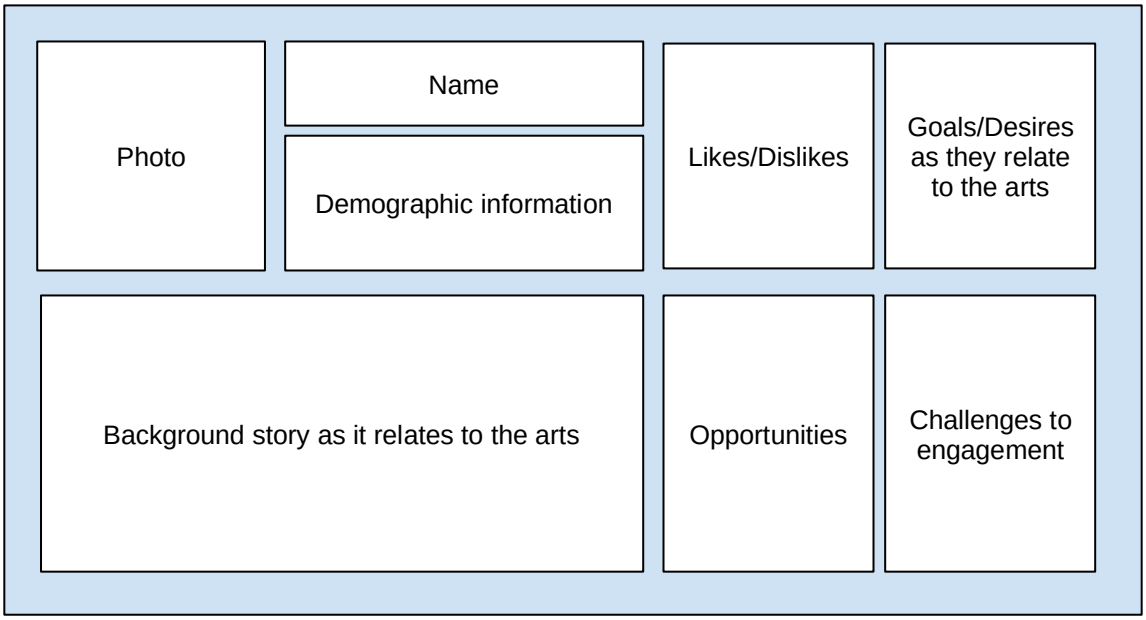

Figure 5 - Example of a persona template in an arts context

This information can serve a variety of functions, including strategizing programming in line with mission and vision of the organization, rallying the design team around a clear vision of the public that the experience in question will serve, and anticipating challenges around participant interaction and experience before they happen. Potts and Salvo (2017) add that personas allow the voice of the designer and user to exist in harmony during planning, which is desirable to arts practitioners who value their own creative investment in their work. Personas can be used at any touchpoint of the organization, from marketing to strategic planning, because knowing what makes the audience tick makes it easier to convey the value or appeal of an experience (Goodwin, 2009). Once identified, the personas represent the target audiences of the art experience being created and paint a clear picture of who the audience is, and the next step is engaging with those audiences.

Heuristics

Heuristics are a designated list of conditions developed by Jakub Nielsen to give UX practitioners of all levels a method of evaluating usability in a product, project, or service. Heuristics can be used as part of the planning and strategy stage in order to anticipate the needs

of the participants as they interact with an experience, or they can be used at the testing and/or reflection phase to continue the iterative process based on user feedback. Hartson and Pyla (2012) lay out a detailed process for heuristic evaluation as a testing tool, which involves the team selecting target heuristics that apply to the system, translating the heuristics into inspective questions, and then the team spends time examining the product or system from the point of view of the heuristics they have chosen. Although Hartson and Pyla position this as a design team activity, it also could be done with test participants, since according to Nielsen (1995) designers can't always be participants and participants can't necessarily act as the designer. Nielsen's list of heuristics includes ten primary items, however, for the purpose of this toolbox only four heuristics will be discussed:

1. Match between system and real world
2. Consistency and standards + aesthetic and minimalist design
3. Recognition rather than recall
4. Flexibility and efficiency of use

All these heuristics represent common areas where users struggle to interact with arts experiences. Returning to the example of the traveling museum exhibit from earlier in the chapter, the expectation that the exhibition would be for families with children did not match the reality, which was that the experience was actually installed with primarily an audience of adults in mind. One method of testing that could have solved this issue ahead of the exhibition debut was observing participants in the layout, using museum volunteers with families or children, which serves the dual purpose of testing the experience of the exhibit and engaging volunteers as stakeholders for the health of the internal ecosystem.

The next heuristic that arts organizations often struggle with, even if volunteers and staff are seasoned designers, is maintaining branding presentation and consistency. This heuristic is a combination of two of Nielsen's heuristics, consistency, and minimalism. Nielsen mainly intended this heuristic to address usability in digital design, and arts organizations can observe it in their digital designs as well as space curation. The design of an organization, whether physical, digital, or in programming, should be consistent across every piece, even if that takes

time during the planning and design phase. Oftentimes, the branding is the first area that participants will notice mistakes, and if those errors are serious enough, they can alienate audiences. For example, a museum should at minimum ensure that any labels on artifacts or art are consistent in design and error free. An obvious flaw such as a misspelled artist name or country of origin should be remedied during the testing process because audiences could misinterpret the mistake as a lack of care towards certain artists or demographic groups at worst, and at best lose trust in the brand of the organization. Not only should design be consistent and error free, but it should also be aesthetic and minimalist to promote accessibility and lower the possibility of participant confusion. Aesthetic design means appealing to the audience, in line with the overall branding of the organization, and not detracting from the experience. Minimalist means slimming down the amount of design assets and variation in elements to create a smooth design that isn't overwhelming or difficult to interact with. When evaluating digital elements such as websites, a tool that can be used to assess this heuristic is an accessibility checker, which can be found online through various hosts and will assess a website for compliance with ADA and other standards of access.

The next heuristic that often challenges arts organizations is recognition rather than recall. According to Hartson and Pyla (2012), this is the act of making objects, actions, and options visible rather than relying on the participant's memory to navigate a space or experience. Recognition rather than recall presents a challenge in two main areas: communications and physical space planning. When creating a marketing plan, it is important to consider the amount of competition within an arts ecosystem for participants' time. That is why a marketing and communications strategy that relies on recognition, rather than the recall or memory of information, can help audiences make the final step to participating in programming or events. The more physical application of this heuristic is in the navigation of arts spaces, which should rely on recognition in the overall organization. Clear signage at key junctures of a space and designing a layout that also considers the expectations versus reality of the client's interaction from heuristic one, are the simplest ways of addressing this need. For example, an exhibit marketed as a chronological experience, i.e. a presentation on a significant figure's life, would generate the expectation that the navigation would begin at the start of that figure's life and would end with their death and legacy. But if the space was organized in such a way that

participants entered the space midway through that figure's life, with no clear signage on how to navigate to the beginning of the story, the expectation does not match the experience and there is a risk of alienating participants. This also presents the expectation that audiences should come to the experience remembering prior information about the figure, at least enough to make it possible for them to form their own navigation to the beginning of the story. Similarly, an experience based around a particular theme should not break midway through with a different space or experience altogether and rely on the audience's memory of where the story or experience left off when it resumes.

Finally, the flexibility and efficiency of use of a space and experience should be planned for, assessed, and tested prior to debut. While new technology is often introduced to draw audiences in by providing new, efficient experiences, that focus on efficiency often sacrifices user connection, according to Geisler (2013). Instead of assuming that all participants will prefer the newest, most efficient experience, design for all the desired, or possible, audiences that will interact with the arts experience in question. Allow participants to tailor their experience according to demographic information, speed or duration of desired experience, and familiarity with the topic or organization through varied and intentional methods of communication and engagement.

Overall, heuristics provide a simple and effective method for anticipating client needs as well as testing the environment of the experience. They can be applied in the planning stage to help target desired participant outcomes as well as used as an iterative tool during testing. The four heuristics chosen for their relevance to the arts provide a guide for ensuring that the design of marketing, space and programming is accessible, usable, matches participant expectation, and eliminates possibilities of error or frustration that could disengage participants from the experience.

Affinity Diagrams and Card Sorting

Affinity Diagrams are a simple tool that arts organizations can use in almost any area of operations, from planning to design to reflection. While it seems deceptively simple, it is a strategy for identifying patterns or connections that might not otherwise be obvious (Goodwin,

2009). Historically this method has been used to make sense of large amounts of data, and it has since become a staple of planning and research (Hartson and Pyla, 2012). Traditionally, note cards or sticky notes are used because they can be moved and sorted into categories. When used for planning purposes, outcomes or goals can be the anchor cards, and then supplemental cards can be created and sorted to think of tactics for achieving those outcomes [fig. 6]. In Figure 6, the main areas of responsibility or planning are represented by the light blue boxes. Items relating to these areas are then grouped together. The outcome is a clear picture of what the event's purpose and goals are, which can then inform job delegation and strategy for event success. It can also identify areas of need, key resources, and potential challenges. Using an Affinity Diagram for brainstorming makes the process more collaborative and involved.

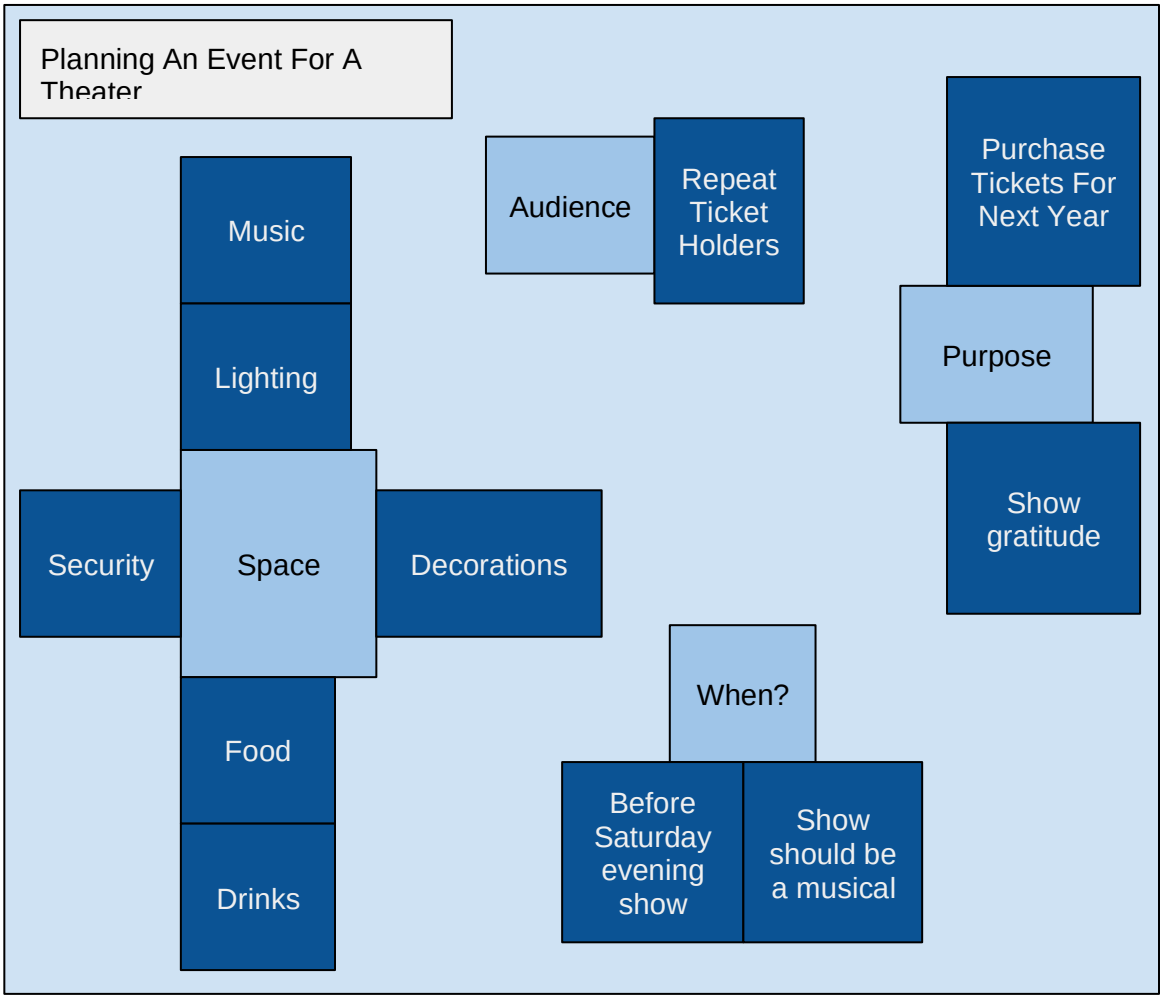

Figure 6 - An example of affinity mapping for brainstorming an event at a theater using sticky notes or cards

When used as a reflective tool or a way to sort through data, Affinity Diagrams can help with the breakdown of participant data in order to feed other UX tools, such as mental models or empathy maps [fig. 7]. The trends identified through sorting by affinity help the design team prioritize features and identify pain points. In Figure 7, the main areas of focus are represented by the yellow boxes: Space, Content, Staff, and Miscellaneous. Then the rest of the brainstorm results can be grouped around those four boxes. The outcome of this Affinity Diagram is a clear picture of where the pain points and positives are from the participant feedback. Trends can point toward priority items to solve first, and feedback that is irrelevant to the iterative process can be saved for quantitative record-keeping but excluded from problem-solving strategy.

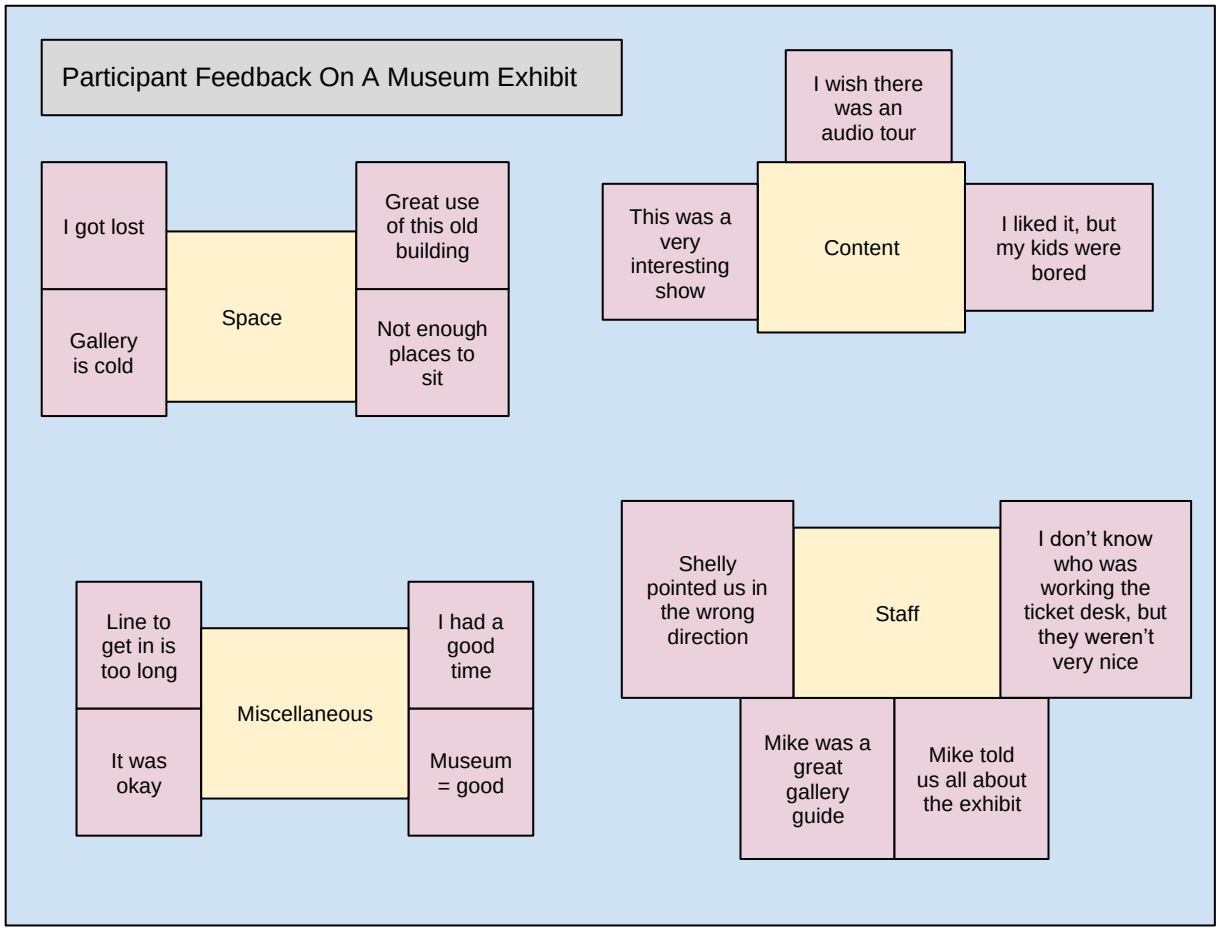

Figure 7 - Affinity Diagram for museum exhibit participant feedback using sticky notes or cards

Similarly, Card Sorting is the process of recording how participants group or organize information and can be particularly useful to arts organizations in the process of rebranding, restructuring, or evaluating programming [fig. 8]. Figure 8 depicts a sample card sort activity as

it would look to a participant being observed for feedback on a theater website rebrand. The participant would follow the instructions in the white box while the researcher observed their sorting process and results. The outcome is an intuitive model of how a user might interact with the website, what they prioritize and what they find irrelevant. It can help organizations slim down designs for usability and relevance, identifying what users actually need or want from an experience, service, or product.

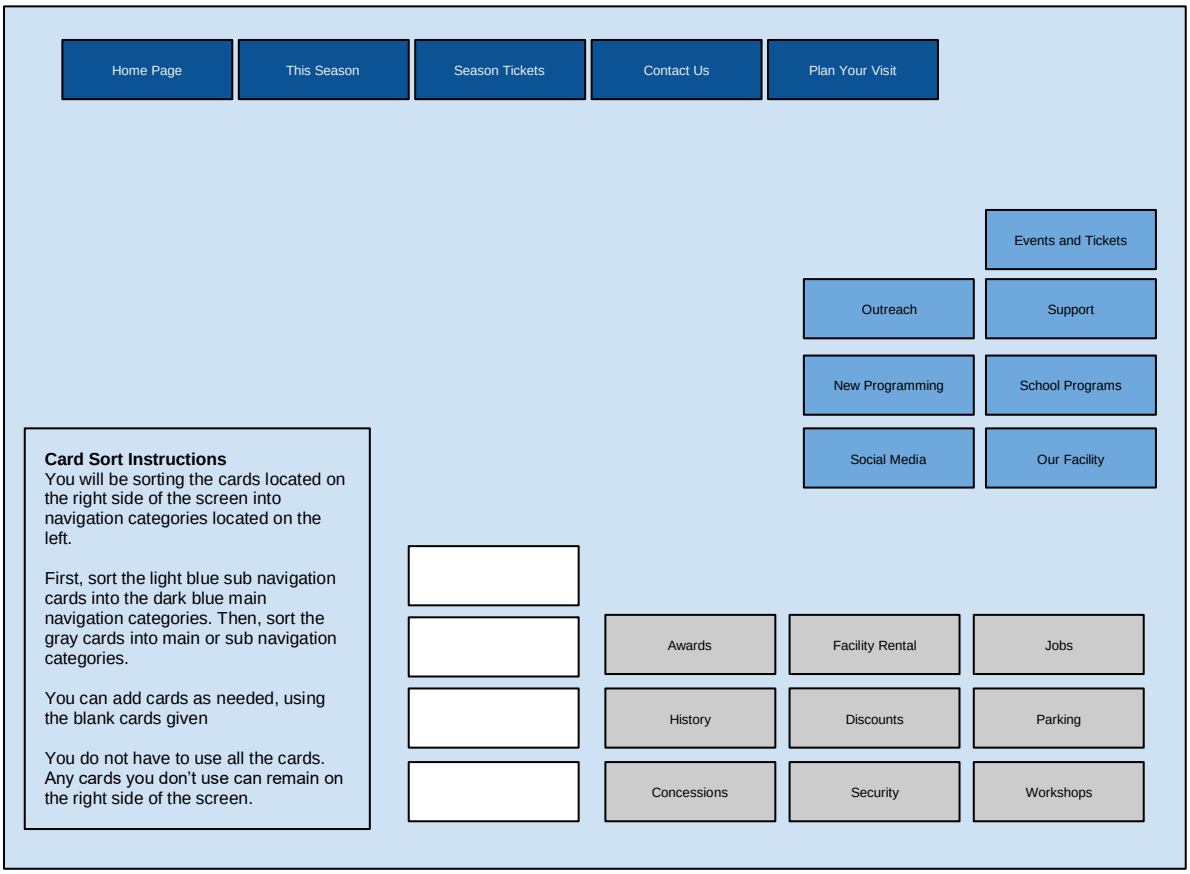

Figure 8 - An example of a card sort activity to gain information about a theater website rebrand

Card Sorting is commonly employed when assessing the usability of websites, however, it can be translated into physical spaces by sourcing feedback from participants on if programming or exhibitions are meeting needs and expectations. Both Affinity Diagrams and Card Sorting are tools that can be used to break down data and make sense of the information that either design teams or participants are providing.

Mapping

Mapping is both a planning and design tool that is primarily concerned with understanding participants. It is also a process of designing or observing an experience matching to expectation through a series of steps or systems (Lidwell, 2015). If the effect corresponds to expectation, then the map is considered sound, and if it doesn't, then it's time to return to the iterative process until the map is effective. According to the Nielsen Norman Group, there are four key types of UX maps: Empathy, Journey, Experience, and Service (Gibbons, 2017). Szabo (2017) adds three more types of maps, the user story, solution, and ecosystem maps, and posits that mapping can be done in any area of design because it is a key tool for working toward desired outcomes [Table 3].

MAP TYPE	DESIRED OUTCOME
Empathy Map	Understanding the participant's mindset in the context of an experience
Customer Journey Map	Visualize the customer's interaction path through an experience
Experience Map	A macro view of a participant's experience within an ecosystem, rather than tied to a specific interaction
Service Map	Understanding the participant's experience journey from the perspective of an organization and staff
User Story Map	A visual of what goals individual participants set for interactions or experiences
Solution Map	A route to a solution for a problem affecting the experience of an arts organization
Ecosystem Map	A map of a system of interrelated processes that demonstrates the connections between functions or actions

Table 3 - A table charting different types of UX maps and their desired outcomes

For most of the maps explained here, one important feature is the development of milestones. Szabo defines Milestones as the stages of experience, from audience identification to first interaction to getting the participants in the door, then detailing their experience within the arts context and how they reflect on the experience. This scope might be larger or smaller, depending on the type of map being created. Some of these maps, such as the User Story Map and Solution Map, may only have the simple milestones of start and finish. However, milestones are important to develop because they can serve as a metric of achievement for the design team [fig. 9]. In the example below, milestones of achievement or activity are used to chart the participant's journey as it relates to gallery merchandise purchases. The gallery could choose to encourage or disrupt the observed patterns to drive up merchandise sales, as indicated by the orange 'sale?' star.

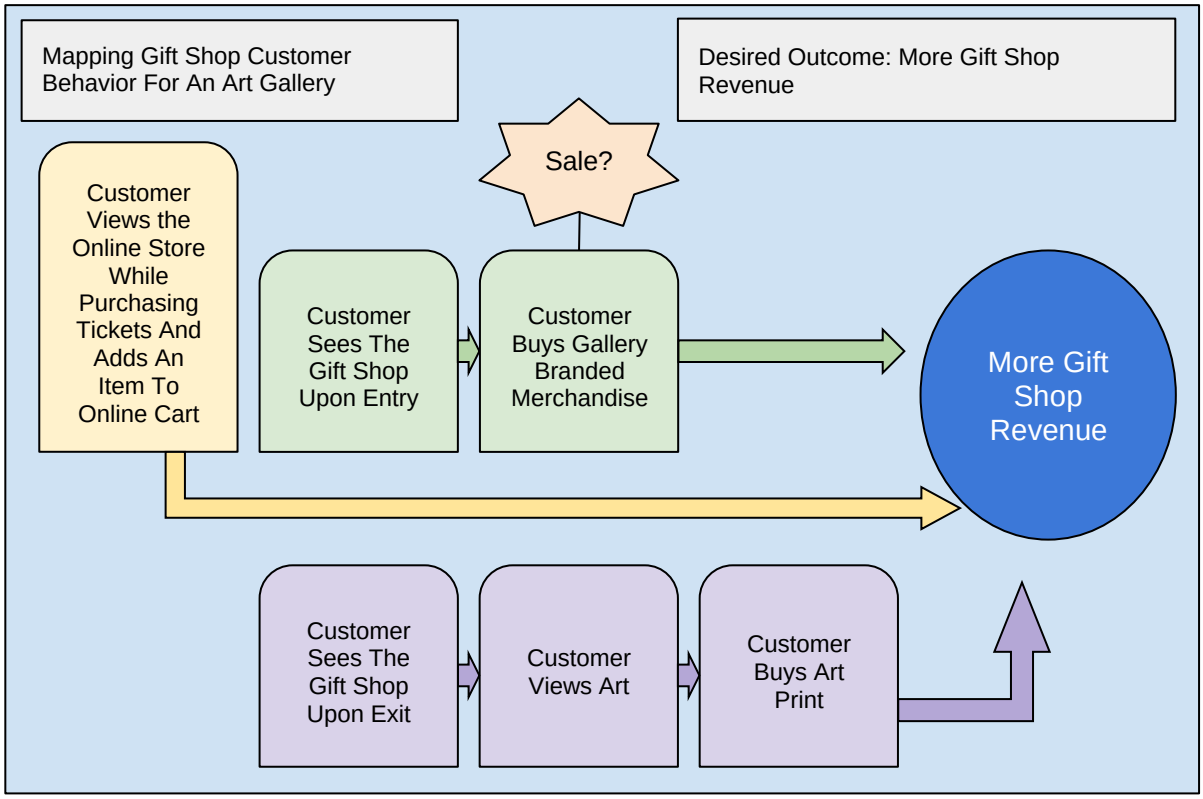

Figure 9 - A milestone map of participant behavior relating to purchases in the gallery gift shop based on observed trends

Empathy maps don't usually take advantage of milestones because they focus on the mental state of the participant, what they say, do, think, and feel (Gibbons, 2017). This tool

exists between an affinity map and a mental model and can be used to inform either of those other tools, or a persona in development. Empathy toward the mental and physical state of the participant is a necessary piece of Lean UX and design in general, because the designer must feel empathy towards the needs and obstacles that participants face to effectively design products or experiences that participants will want to interact with (Gothelf and Seiden, 2021). To create an empathy map, center the participant and then source what they say, do, think, and feel, either through direct feedback or through a detailed observation of how they interact with the arts [fig. 10].

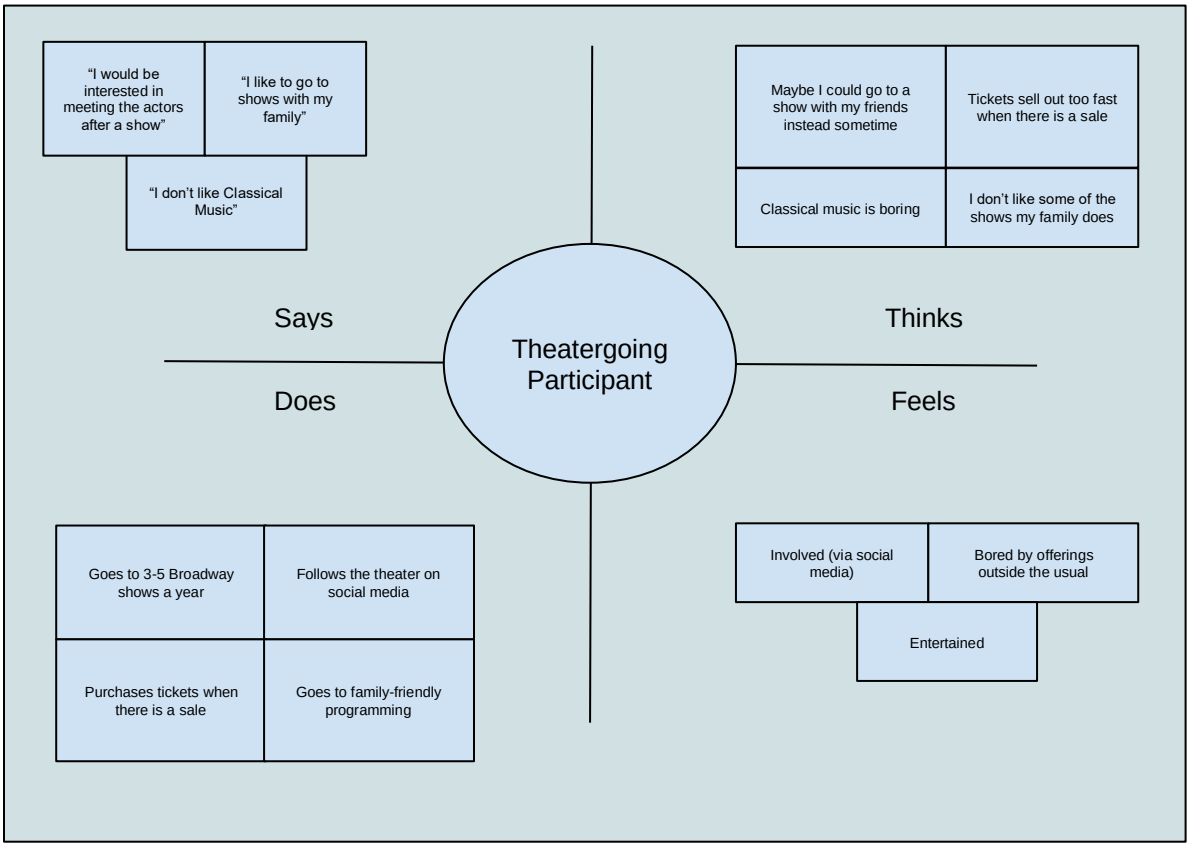

Figure 10 - An example of an empathy map created for the persona of a theatergoing participant

While the Empathy Map is most useful in the planning phase, the Journey Map can be used throughout the entire design process. Szabo (2017) defines the Journey Map as "the plan we create to guide users throughout the solution, to solve their problems with a series of interactions. To be able to create such a path, we need to understand the needs of different user groups". The tool can be used internally to track how participants interact with the space [fig. 11]. In Figure 11, the map is built around the participant's information and expectations, then a map of their

path through a museum is created to visualize how their experience matched with expectations. The information gathered in the map can reveal possible pain points or challenges, such as when Patty discovered the new exhibit is too crowded at the moment and she cannot engage with the experience as expected.

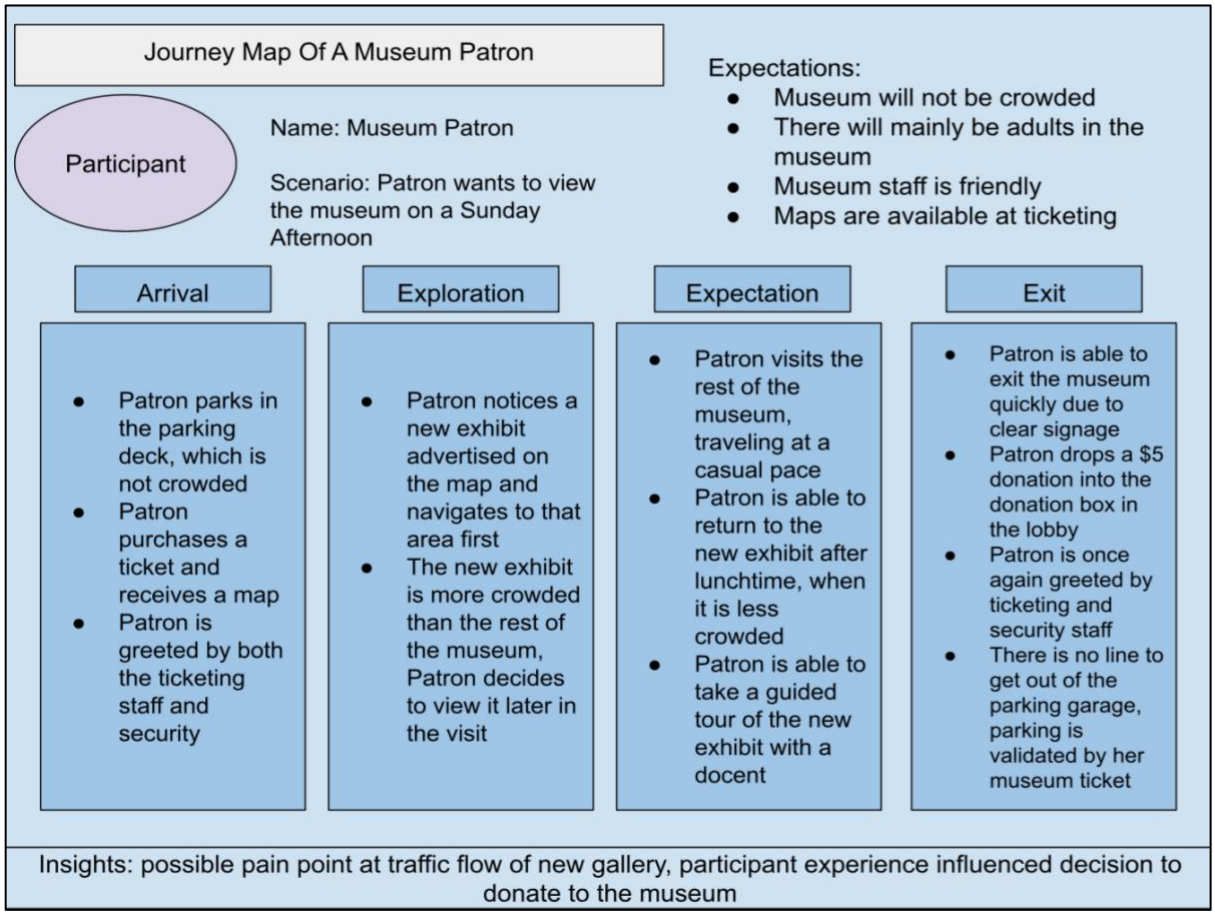

Figure 11 - An example of a journey map for a museum patron

Journey maps for participant paths within an experience are useful for problem-solving and understanding how audiences are interacting with physical spaces, but the tool can also be used to show how a participant gets to the point of patronizing an arts organization and its programming [fig. 12]. In Figure 12, the journey map visualizes the participant's path from determining a desire for entertainment to choosing a museum experience. There are four stages, as recommended by Nielsen Norman Group: Define, Compare, Negotiate, Select (Gibbons, 2018). In the Define stage, the participant determines the core desire and begins to explore options for meeting their need. Next, the participant compares options for entertainment and

discards any options that are lacking in usability or do not meet the desired criteria. Next, final comparisons are made based on positive and negative information, in this case, negative reviews for a museum despite a positive interest versus positive reviews for two theater organizations where there is negative interest in the programming. The final phase is making the decision to patronize the museum, despite the risk of a bad experience. Throughout the entire process, the participant's feelings and thoughts are logged in the thought bubbles to center their feedback throughout their journey.

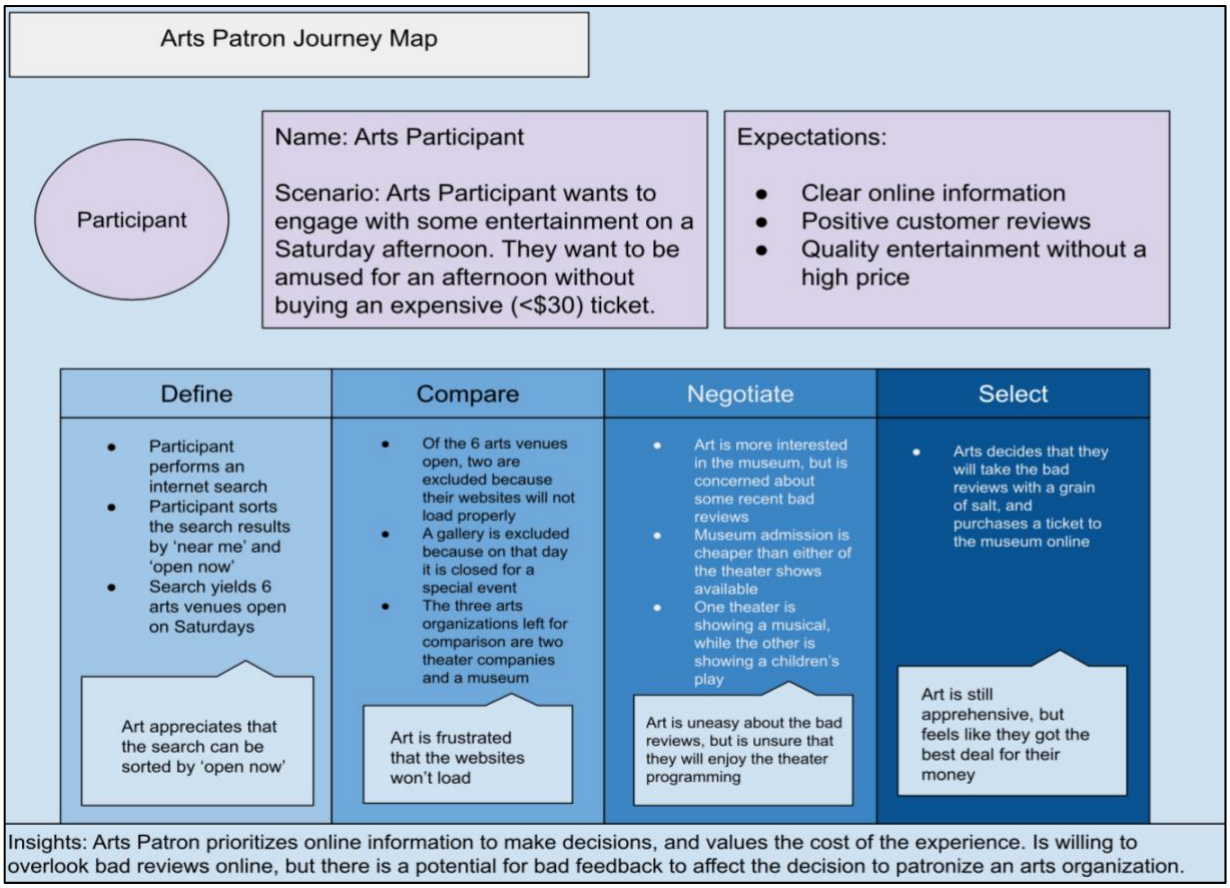

Figure 12 - An example of a larger scale journey map depicting the participant's journey to get to the point of patronizing an arts organization

The main advantage of a journey map is that it is easier to visualize participant pain points or frustrations or anticipate where possible obstacles may arise. Nielsen Norman Group recommends accumulating a series of user goals and actions (potentially from another tool, such as the empathy map or persona), and using them to create a skeleton of the map. Then that outline can be filled with participant information to create a clear narrative of how and for what

purpose something is navigated, whether the arts practitioner is looking for internal or external information on participant journeys (Gibbons, 2018).

To get a better understanding of exactly how a participant is engaging with an experience, an Experience Map can be used. According to the Nielsen Norman Group, Experience Maps are a "visualization of an entire end-to-end experience that a [participant] goes through to accomplish a goal," and that this tool is mainly used to understand general human behaviors in a space or framework (Gibbons, 2017). Nielsen Norman Group recommends using it before the journey map to understand the baseline of a product or service, but arts practitioners may find it helpful on its own or user in a different phase of design from the Journey Map. The Experience Map is more generalized than the other types of maps, preferring to focus on participants within a context as a whole instead of categorized by participant type [fig. 13] (Gibbons, 2017).

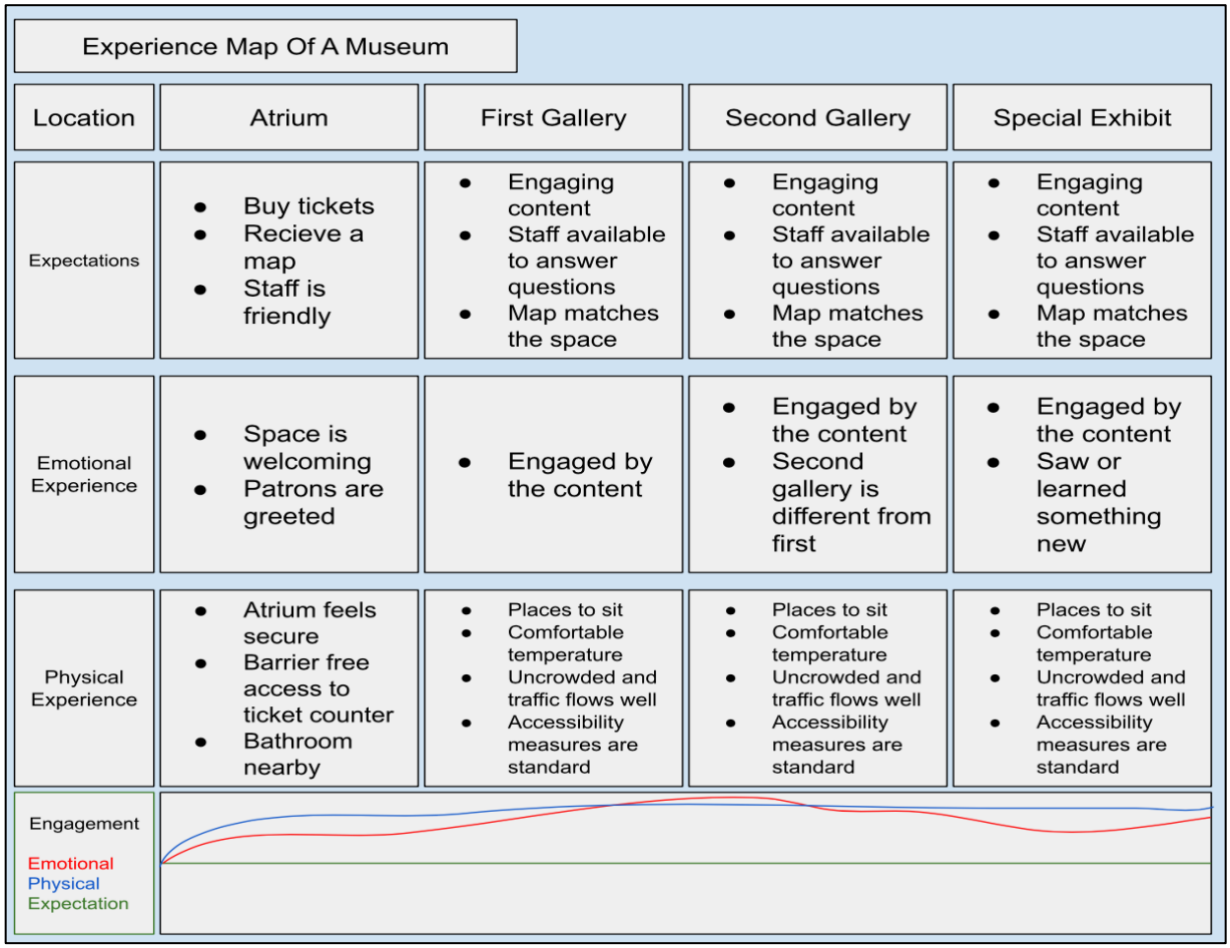

Figure 13 - A map of patron expectations compared to their emotional and physical experiences

Service maps are a counterpart to Experience Maps, however, they show the participant experience in partnership with the organization's internal systems to show the complete interconnected experience. Service maps can be particularly useful in identifying pain points for either participants or staff within a space, to better address the needs of both the organization and the audience. Nielsen Norman Group recommends thinking of this map as the second stage of the customer journey map, because it fills in the other side of the experience from the organization's perspective without the extra participant information (Gibbons, 2017). Service maps can be used to identify weaknesses or opportunities for the organization, to problem-solve staff or participant needs, and to get the entire team on the same understanding level about the effectiveness of the programming or space in question. Before beginning the process of this map, three things must be considered: whether this map is showing things as they are, or as they ideally should be in the future; whether the information is sourced based on accumulated data or hypotheses about participant behavior; and finally, how detailed the map will be (Gibbons, 2017). The advantage of an extremely detailed map is that it will be easier to visualize and understand for the wider audience of your staff and board [fig. 14], though the downside is that it will take more time and resources to actualize.

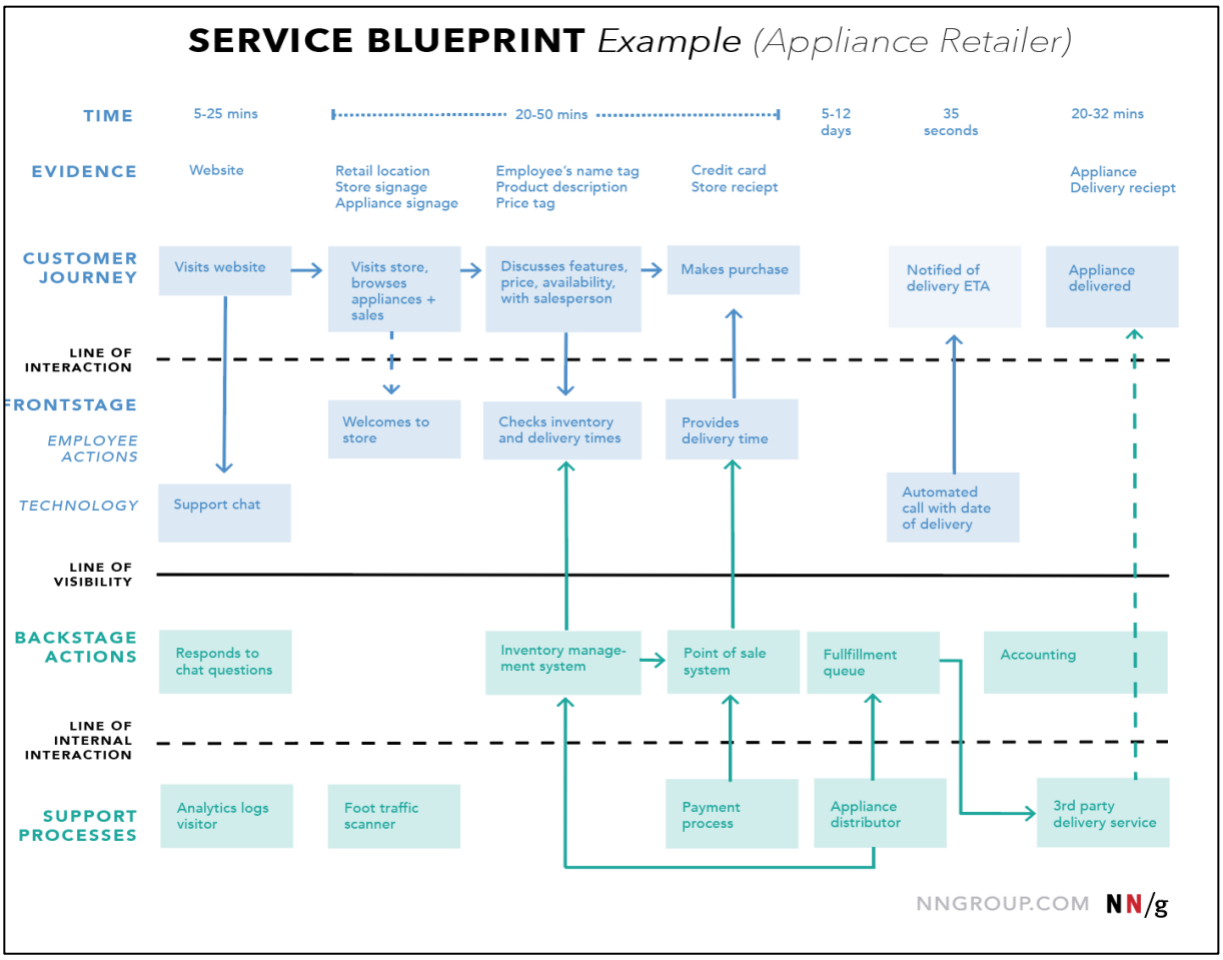

Figure 14 - A service blueprint example using an appliance retailer, from Nielsen Norman Group

Figure 14 shows an example of a detailed “service blueprint” for an appliance retailer from Nielsen Norman Group (Gibbons, 2017), while Figure 15 shows an example of a lower detail but still relevant arts organization map. Even if the actualized map is lower in detail, the result of the service map should be a gained understanding of what the organizational touchpoints are, and how the participants engage with each touchpoint [fig. 15]. One of the challenges of this map, however, is that the detail can become convoluted and confusing. As seen in Figure 15, the arrows begin to track over each other as the overlapping systems are filled in.

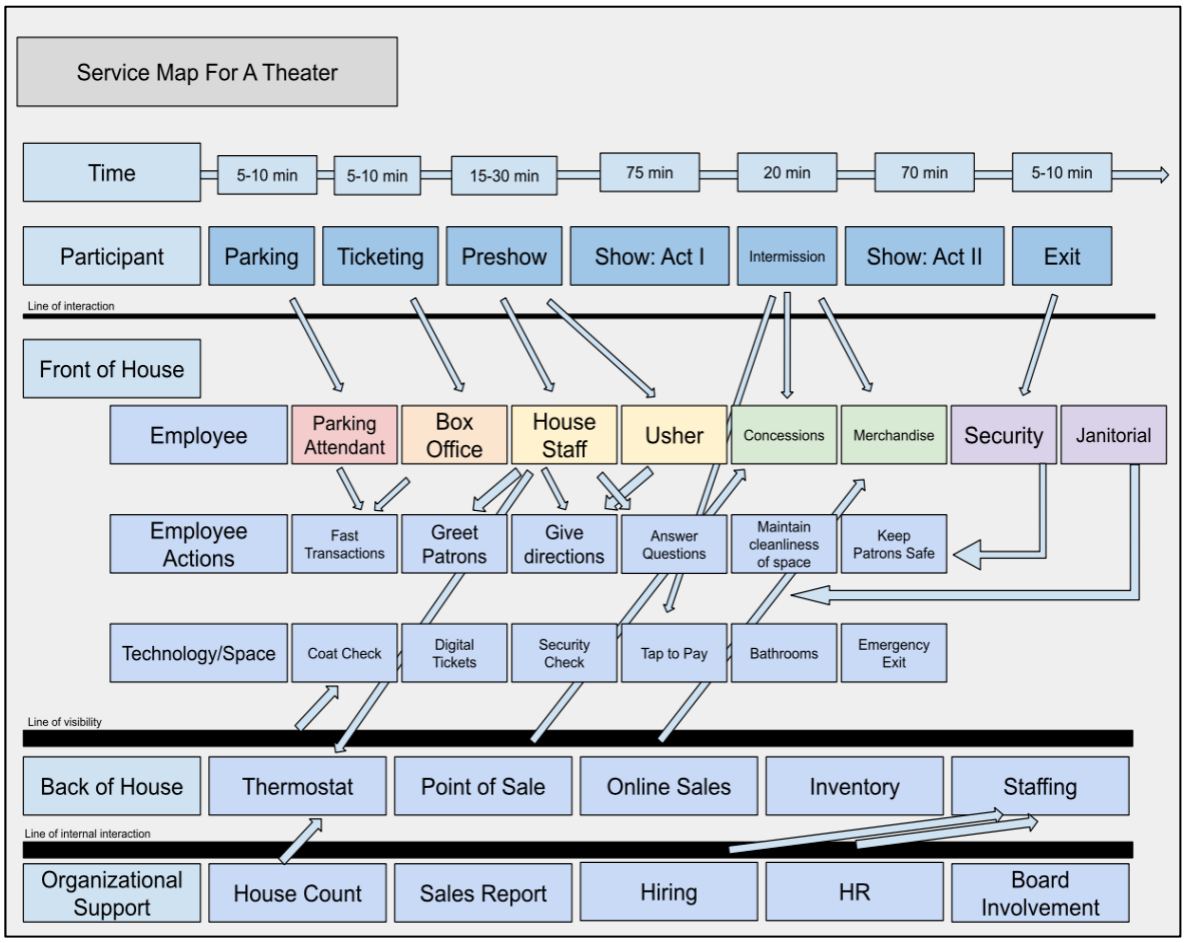

Figure 15 - A service map for a theater; more arrows and connections can be added as relationships are identified

Removing connections that are unimportant to the process or problem at hand can eliminate confusion within the map [fig. 16]. In Figure 16, any arrows, or boxes unrelated to the problem of "patrons are complaining about long lines" are removed in order to focus on the tasks, actors, staff, and resources involved. This can allow practitioners to pinpoint root problems and begin to provide solutions.

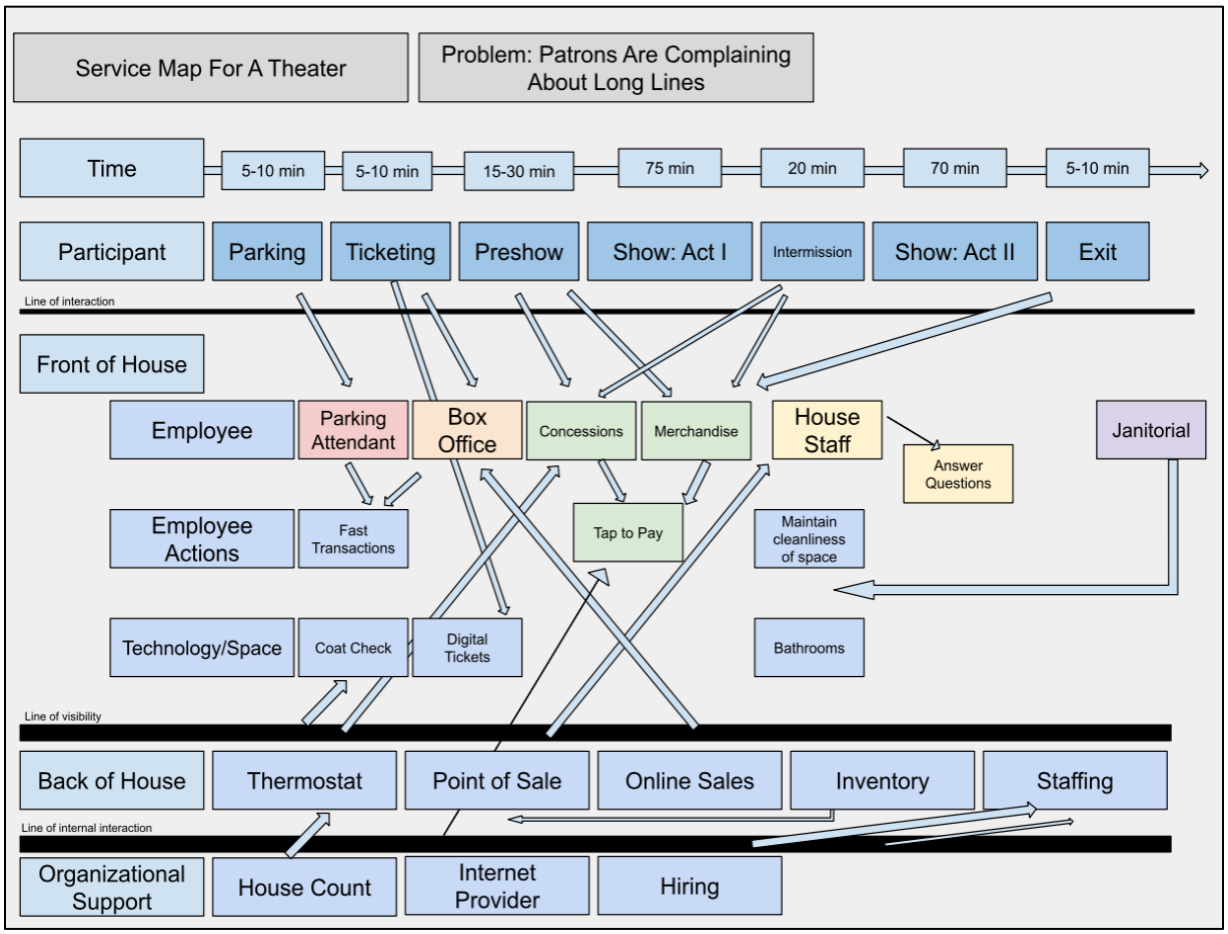

Figure 16 - Service map from Fig. 15, revised to show only systems pertaining to the outlined problem at hand

To further interpret the maps already exemplified in this section, User Story Maps can be used to create a condensed snapshot of the desired outcomes based on participant needs and wants. This tool, which Szabo (2017) cites as being able to help practitioners throw less resources at a problem, maps user profiles through discussion. The formula is “as a (role/persona), I want “requirement/output), so (reason/outcome)” (Szabo, 2017) [Table 4]. Though Lean UX theory would advise leaving off the persona information, it is necessary for arts practitioners to keep that piece in, so that the participant remains at the center of the mapping exercise. Having a complete understanding of the participant is vital to understanding who the participant demographics are and how to engage them.

ROLE/PERSONA	WANT	OUTCOME
First time theatergoer	An entertaining experience	To see if I like this enough to attend again
Infrequent theatergoer	To see a well-designed show	To see if I want to patronize this theater over one nearby
Season ticket holder	To see something I haven't before	To find out if I will renew my season ticket membership again next year

Table 4 - an example of user story mapping, using a table to organize data into stories

According to Szabo 2017, Solution Mapping is "a tool that will help us find solutions and communicate them." Practitioners analyze current programming or operations to find common patterns and problems, then will map a solution for solving them. Szabo also lays out the process for solution mapping: First, is to put issues on the map, but not if they are only hypotheses. Only put test data here, drawn from either existing reflection practices such as surveys and interviews, or from observations of participants in the space. Once the data is collected, practitioners can apply affinity diagramming to group issues together linking issues causing other problems together. By continuing to group problems until reaching an issue that has no root cause, the original problem is revealed. The final step is beginning to solve the root issues, adding potential obstacles to the solution, and then brainstorming how those obstacles will be navigated [fig. 17].

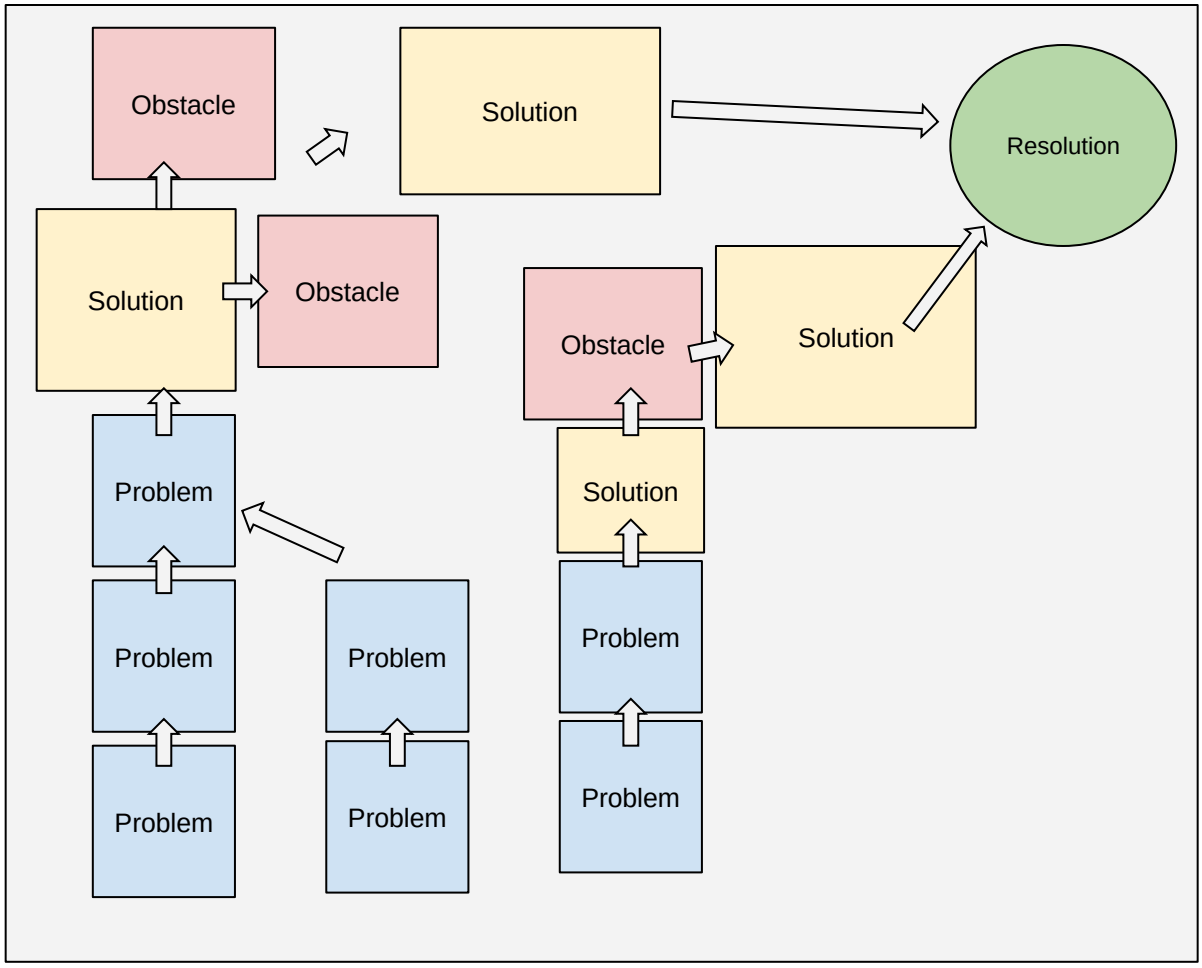

Figure 17 - An example of a solution mapping template

Szabo (2017) recommends a final type of map as a powerful tool for facilitating communication and the decision-making process [fig. 2]. Arts organizations can benefit from Ecosystem Maps because the map can frame the organization as a solution to a given need within the ecological landscape, and then place that solution into the greater context of user experience. Szabo defines a UX ecosystem as a "sum of all discrete but interdependent components that function together from the perspective of the user interacting with our solution," which is not that different from how ecosystems are organized in the natural world, or the arts ecosystem model discussed in chapter one [fig. 1]. The ecosystem map is organized around a central solution, which in the case of the arts can be the organization itself at the core, but the center can also be the solution to a problem, or the programming being idealized by the design process [fig. 2]. Szabo then recommends asking "how, who, what, when, where why" to create six categories of

the map. Distance from the core radiating outward defines the small to large scale of each of the six slices. Szabo (2017) and Polaine et al. (2013) recommend hexagonal shapes for this map because of the way that they radiate outward and create patterns, though any shape will work. The desired outcome of an Ecosystem Map is a visual representation of the arts landscape surrounding an organization and its programming. The map can help create a holistic strategy for programming and engagement, and drive innovation within the organization.

Mapping is one of the most useful tools that can be borrowed from the UX toolbox because it can be applied to any area of an organization, in any phase of design from planning to reflection. Szabo (2017) posits that "strategy is the root of all maps, ask why, what, how much, and how long, usually in that order" to encourage reflection and insight on what the map is offering the design team. Nielsen Norman Group also supports introspective analysis on mapping exercises, further claiming that "map effectiveness within organizations were seriously undermined when the journey maps were simplified to leave out the insights area" (Gibbons, 2018). Analysis of findings is key to the mapping process, otherwise the resources and effort of map design are wasted. If done correctly, maps can serve as participant guides for every stage of the design process and will help practitioners solve problems at a faster pace because the visual can help recognize possible pain points before they present themselves in the user experience.

Mental Models

A mental model is an internal representation or understanding of something, or the sum of what a participant knows and/or assumes about an experience (Hall, 2019). Mental models are representations of systems and environments derived from experience, and participants interact by comparing the outcomes of their mental models in comparison to the systems and environments they are engaging with (Lidwell, 2015). They give you a deep understanding of a participant's motivations and thought processes, as well as context from the landscape and their emotions (Young, 2008). Young also adds that the advantages of mental models include confidence in the design or programming, clarity in the direction of outcomes or goals, and continuity of strategy.

Mental models can be used as a planning tool, pulling from interviews, personas, or other data that has been sorted via affinity map, or as a reflective tool when comparing mental models between participant demographics or between participant and designer models. According to Szabo (2017), this process does not start with outcomes, rather with a desire to understand more about why participants interact with experiences in the ways that they do. Problems in the design or interaction of experiences can also be identified before they present by combining mental models with mapping. The gaps between the models sourced from the design team and from the participants can inform the team where potential areas of frustration or disengagement can be addressed. While the mental models process can become a very detailed research endeavor, arts practitioners should follow the process to the point of getting a clear snapshot of the mental state of the participant. If time and resources allow, in-depth interviews will yield the best data for building a Mental Model. However, data can also be drawn from surveys, personas, observations, and shorter participant discussions. Once the relevant data about participant actions and processes is collected, Affinity Diagramming can be used to sort and interpret it, resulting in an organized mental model [Table 5]. In the first column should be the "mental space" or the starting point of the participant's mindset as it pertains to the experience in question. The next column should include the "task tower" or the root of the tasks the participant completes to participate in the experience. Following the task tower are the baseline tasks that the participant enacts to engage in an experience, and then the final stage is the outcome or goal of the experience based on the mental model and tasks.

MENTAL SPACE	TASK TOWER	TASK	OUTCOME
Enjoy the sound of a song from a Broadway musical			
	Buy the soundtrack to the Broadway musical		
		Listen to the soundtrack on repeat	
			Learn the words of the soundtrack, generate desire to see the show
	Buy ticket to the Broadway musical when it tours nearby		
		Attend show	
			Generate desire to attend other musicals at this venue
		Purchase a t-shirt at the show	
			Expose friends and family to the show
			Begin collecting memorabilia related to this show
		Read in playbill that the composer has created music for other Broadway shows	
			Generate desire to listen to another show by the same composer

Table 5 - An example of a mental model build using a spreadsheet

Mental model maps as described by Young (2008), and Szabo (2017) take the mental models and then map them to help practitioners to find new ways to support users. The Mental Model Map is a visual representation of a participant's thought process and patterns related to a

subset of the world, relevant to solutions (Szabo, 2017). The model shifts focus from designing a solution to understanding the user's state of mind and how we can support those states. To map this, Szabo recommends observing data over a longer period of time with the same users. Although this might not necessarily be possible for arts practitioners with limited budgets, long-term data can be used to inform the habits and decisions of participants. Alternatively, the Mental Models can be translated using tools such as Affinity Diagrams and then a map will begin to emerge as patterns, opportunities, solutions, and obstacles present themselves [fig. 18].

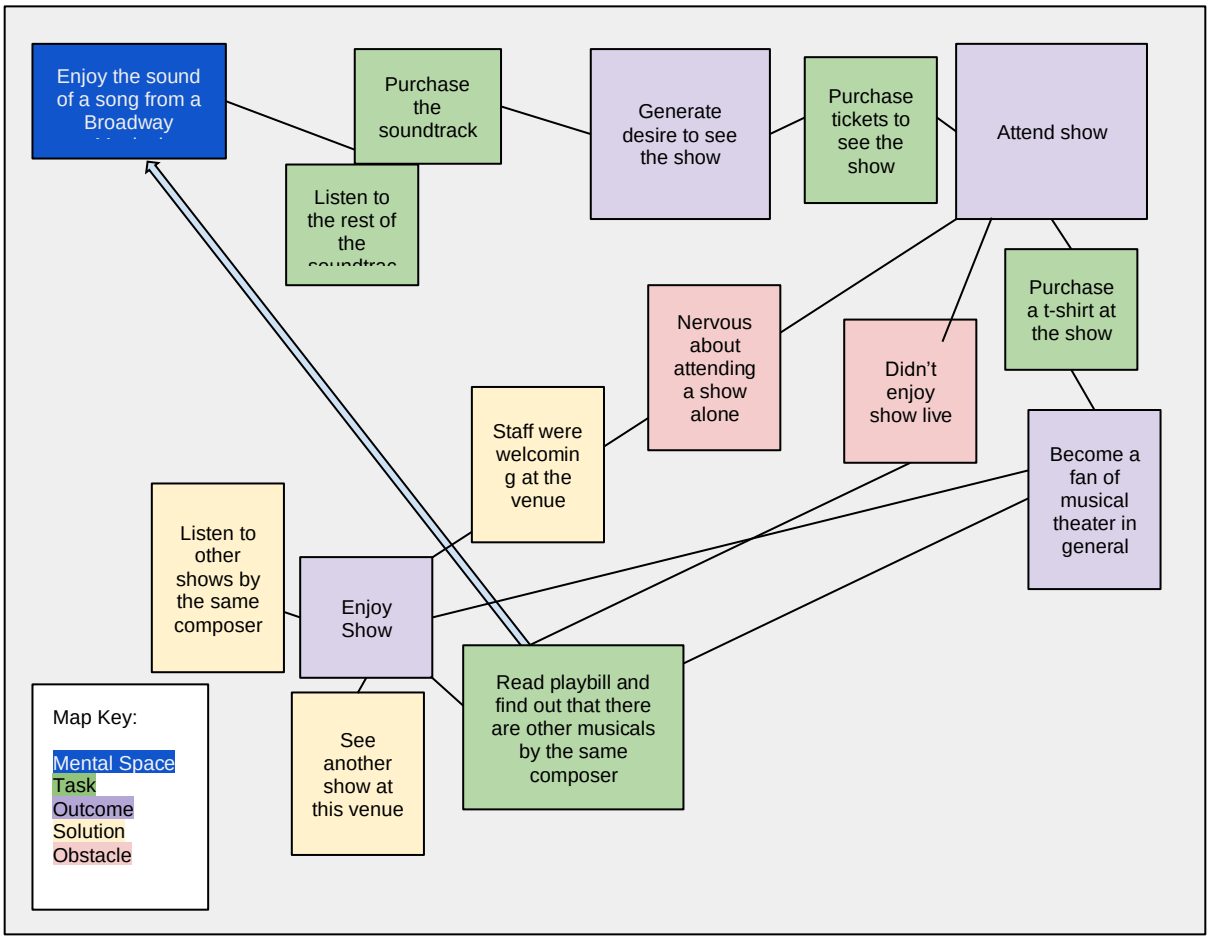

Figure 18 - An example of a Mental Model Map depicting the process of a patron's experience with musical theater

CONCLUSION AND NEXT STEPS

Using the ecological model to contextualize arts organizations within a greater landscape will gain leaders an increased understanding of the environment in which their organizations are operating within. Additionally, leaders can apply UX tools as a methodology for achieving desirable organizational outcomes. The toolbox and framework provided in this research can be adopted, adjusted, and translated to suit the needs and outcomes of the individual organization. While some organizations may find the UX toolbox more useful for updating digital methods of communication and engagement, others may find iteration and design useful for architecting the physical space they inhabit. Museums may use UX research in order to design more interactive exhibits, galleries can use tools such as mapping to make the space as impactful as possible for the artist and viewer. UX is flexible to the needs of the practitioner, especially when Lean/Agile UX and iteration are at the forefront of the design process. Now that the ground has been laid, it is now necessary for arts leaders to step into the role of UX practitioner or designer to apply the methodology and tools for the desired effect.

Using The Toolbox

The tools listed above can be used on their own, in partnership with existing ACMS methods, or in combination with each other to help arts organizations develop their awareness of participants and their needs. They serve as tactics for achieving focus on the participant at every level of an arts organization, with the desired outcomes of positive experiences for all participants and resulting organizational stability. The following model categorizes the toolbox at different stages of the ecological experience for easy translation and adoption [fig. 19]. The model demonstrates both the internal and external ecosystems of the organization and the tools and systems at work on either side. As the organizational planning and design move through the process of examining the arts landscape all the way to the point of ecological sustainability and survivability, UX tools can be applied at different levels to achieve desired outcomes of participant engagement and awareness.

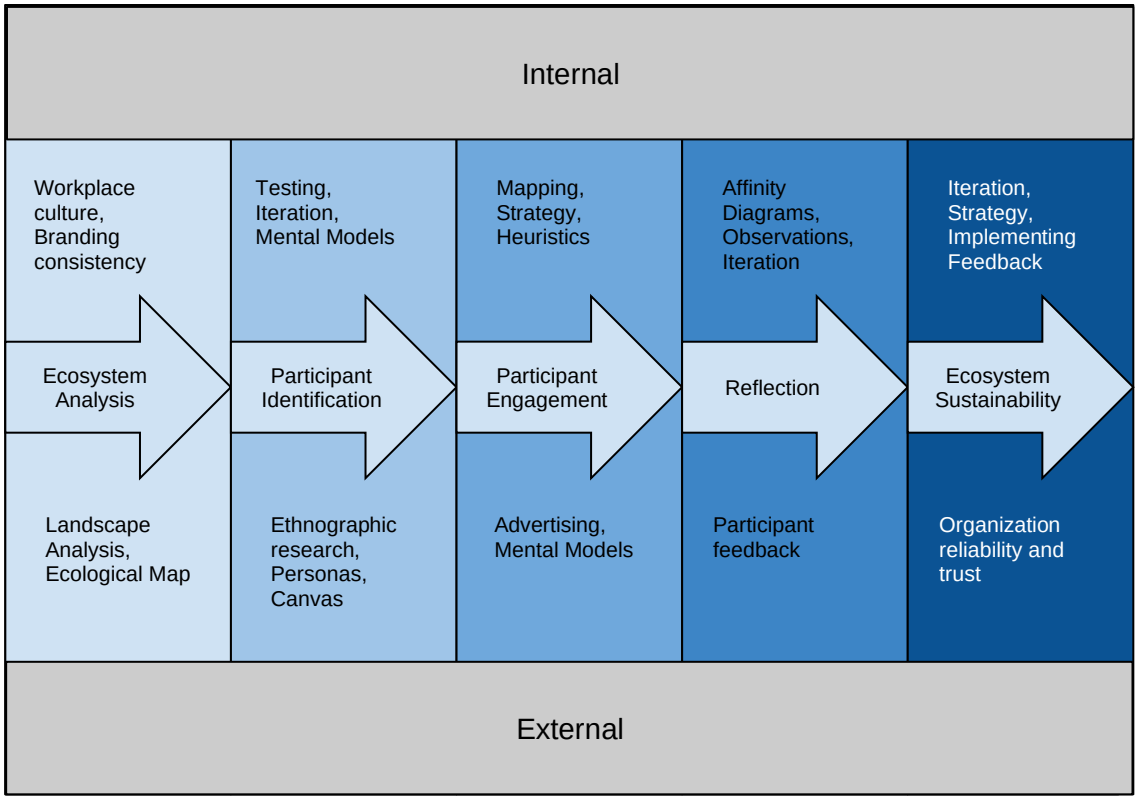

Figure 19 - Proposed model of UX research techniques in an arts ecology framework

This framework and toolbox are meant to aid arts practitioners in curating their spaces, events, programming, and overall operations to serve the needs of the participant. It is rooted in the practice of Agile methods and Lean UX, which are applicable to an arts context because they aim to remove barriers to access for non-traditional designers. Arts leaders often step into the role of subconscious UX practitioner without a concrete background in design, and there is a need for more accessible design resources for non-traditional designers such as these. By participating in UX research techniques adapted for an arts framework, practitioners can better understand participants, resulting in opportunities to engage better with existing audiences as well as attracting new audiences. This can result in a more stable organizational ecology and a better foothold in the larger arts landscape. Arts organizations must maintain both internal and external balance, while also pushing for innovation, entrepreneurship, and continued evolution to provide participants with the best possible experience. One vital tool for achieving this balance is the use of strategy outside the usual boundaries of Strategic Planning, where it usually is employed in arts organization management. Strategy, informed by research, mission/vision,

innovation/entrepreneurship, and design, is the method of achieving participant engagement and organizational stability within the arts ecosystem [fig. 20].

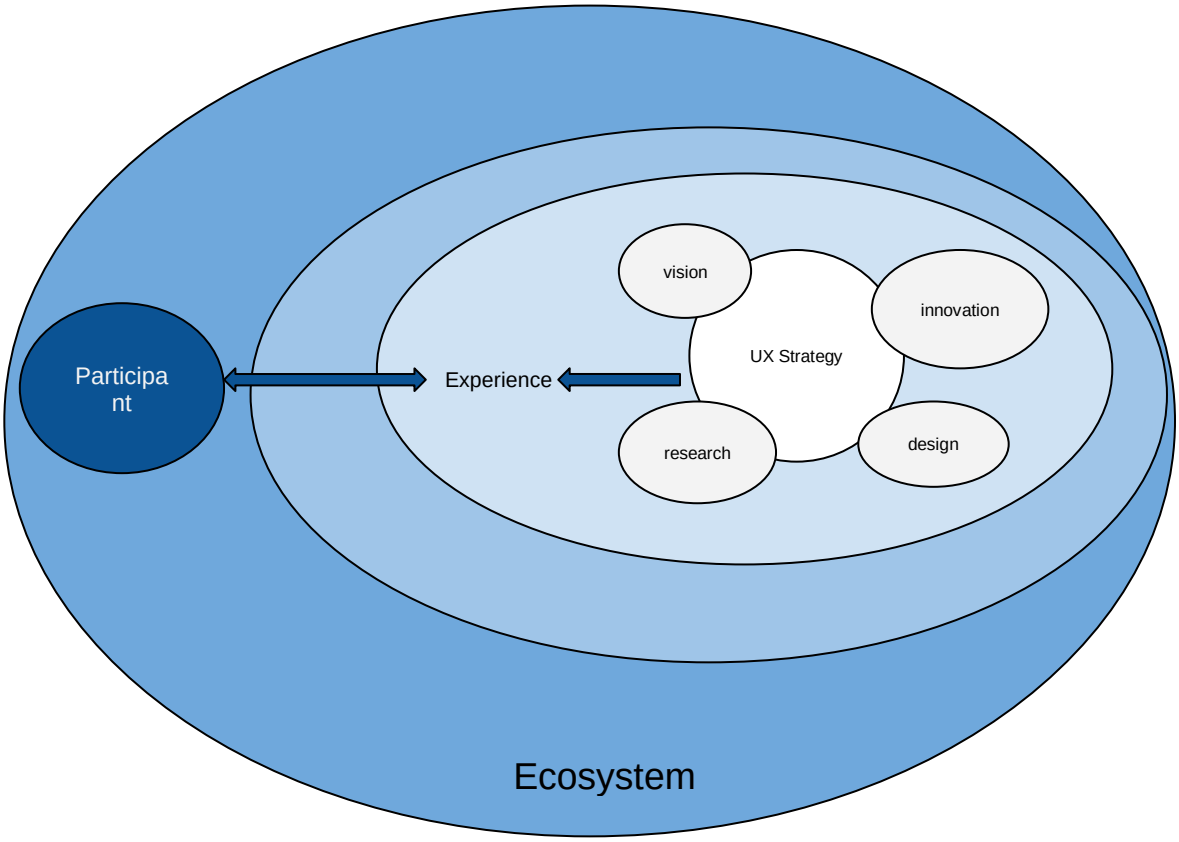

Figure 20 - Szabo's Kaizen-UX strategy model adapted to an arts ecosystem model

Next Steps

This research provides the arts ecologies of experience framework in chapter one, a needs analysis based on a survey of the existing literature in both the ACMS and UX fields in chapter two, and a toolbox for solving identified needs using principles of UX research and design in chapter three. Though this research is by no means comprehensive, it is a starting point for the continued study of two interrelated fields: arts management and user experience. The foundation for UX design already exists in the arts because the survival of arts organizations depends on the experience of audiences to achieve sustainability. The goal of this research is to go one step further by designing participant experiences to gain even higher levels of audience engagement to maintain competitive advantage in an arts ecosystem. This research was interested primarily in developing the arts ecologies model, then prescribing UX theory as a solution to needs identified

in the arts field. The toolbox developed in this research includes tools which can be applied in partnership with a Lean UX approach. Lean UX is an adaptable framework for ACMS organizations because it allows non- traditional designers to step into that role in a structured way. Norman (2003) posited that emotional, empathetic design processes allow anyone to become a designer. The arts are steeped in this kind of design, and the foundation for user-centered ecological operations is already being taught through the works of Wolf (2022) and Stein et al. (2022). The next step is enacting the processes outlined in chapter three, such as landscape analysis, personas, and mapping, to better understand the participants and the greater ecosystem.

In conclusion, navigating the complex arts landscape and the ecosystems contained therein requires a new, user-focused set of tools. This research recommends first that arts leaders take on the role of user experience researcher, then make use of a participant-centered approach for planning and organization at all levels of operation. While this research was limited in scope and approach, investigating literature and theory that were directly applicable to the ecologies of experience model. Future research could investigate more concretely the ways that the arts and UX can overlap to fill the needs of the ACMS field. In particular, future research could be done on how UX communications strategy could be translated to ACMS to expand the communications toolbox of the field. The fields of ACMS and UX have a budding relationship because of the natural and vital relationship between the arts and its audiences, further collaborative study on the combined fields will benefit both the audience engagement of the arts and the creativity of UX as both fields continue to develop.

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