Cultural Atlas Users

A User Experience Research Project for the Mosaic Atlas

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A User Experience Research Project for the Mosaic Atlas

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CHAPTER ONE

INTRODUCTION

Introduction

This report will discuss the user experience research project I performed for Mosaic America and the Mosaic Atlas. For this project, I worked with Mosaic America, a non-profit organization that seeks to connect different cultures and communities in the Bay Area through shared artistic and cultural experiences. Mosaic America was working to build a cultural atlas called the Mosaic Atlas to aid its mission as a non-profit art and culture organization. The Mosaic Atlas is a tool that uses mapping software to place organizations and artists on a map of the Bay Area. It provides information on the artists and organizations while also providing methods of contacting them. The Mosaic Atlas aims to facilitate better communication between less visible communities and organizations through an interactive map and to help Mosaic America in its mission of connecting communities of the Bay Area through arts and culture. My objectives as a researcher on this project were to identify potential use cases for the Mosaic Atlas and identify the problems and opportunities it creates for its users. I then worked with the lead developer on the Mosaic Atlas, Judi Heher, to implement changes to the Mosaic Atlas based on my research. I also presented my findings to Mosaic America in a presentation.

The first chapter of this report will focus on the background of Mosaic America and the Mosaic Atlas project. I will then discuss my involvement in the project as a member of the ethnography team and as a user experience researcher. Then I will discuss the literature relevant to this project. The second chapter will act as a stand-alone article about the project using the guideline for Practicing Anthropology. I will go into further detail about how I conducted my user experience research for the Mosaic Atlas, including

my methodology, analysis, and conclusions for the project. In the third chapter, I discuss additional findings that did not fit into chapter two, limitations for the project, and future research possibilities. I conclude by reflecting on my user experience research for the project and as an anthropologist.

Geographers and anthropologists consider the San Francisco Bay Area an exceptionally culturally diverse part of the United States. By extension, Silicon Valley, located within the South Bay Area, is an excellent example of this cultural diversity. Silicon Valley is an important and historic area for the development of the technology field, which houses the headquarters of numerous famous and highly successful companies, including Google and Apple (English-Lueck 2017). Along with these major players in the technology field, the area is a site for developing one's ideas in the form of startups (English-Lueck 2017). All of this is to say that the Bay Area and Silicon Valley are popular places for people to move to from all over the world to participate in the tech industry. However, not everyone in the Bay Area and Silicon Valley is here to work directly in the technology industry, and not everyone finds the same level of success. Many people who live in the Bay Area and Silicon Valley take jobs in other industries and do not have the same experience as those working in technology (Cooper 2014).

People brought their cultures and experiences from all over the world with them.

These cultures have all made their mark on the Bay Area and Silicon Valley, and in addition, living in the Bay Area and Silicon Valley has created new cultures for the people who move to and live in the area. Deep diversity helps explain that identities are more complicated and intersect with the places people live and their experiences (English-Lueck 2011). Deep diversity is beneficial when discussing the complicated

overlapping of identities in Silicon Valley and the Bay Area (English-Lueck 2011).

Despite this overwhelming diversity, the non-profit organization, Mosaic America, noticed that most people tended to stay within their cultural communities. Compounding this issue was the issue that other organizations have difficulty identifying and connecting with many of the artistic and cultural communities in the Bay Area and Silicon Valley.

Mosaic America partnered with geographers and anthropologists from San Jose State University to help fix this problem by developing an online cultural atlas of the Bay Area known as the Mosaic Atlas.

Mosaic America is a non-profit organization created by Usha Srinivasan and Priya Das, two artists and tech workers from India that moved to Silicon Valley because of its importance to the tech field. As mentioned above, they noticed that, while there is a significant amount of diversity in the Bay Area and Silicon Valley, people largely stick to their communities and neighborhoods. Usha Srinivasan and Priya Das founded Mosaic America as a nonprofit organization to organize events and artists together to bring different cultures and communities within the Bay Area and Silicon Valley together to create and learn with one another. To do this, Mosaic America partnered with other organizations to develop unique performances and events that showcased the combined efforts of artists and cultural educators from different communities through their program Mosaic Engage. An example is an event organized by Mosaic America in which Indian folk dancers and Mexican Folklórico collaborated to create a performance that incorporated elements of their disciplines. What the artists and Mosaic America found in this event was the similarities between the two disciplines that allowed a collaborative performance to form between the two communities.

Despite the success of Mosaic America, they found that it was not always easy to find and make contact with artists and cultural educators in communities throughout the Bay Area and Silicon Valley. Many communities were not visible to the larger Bay Area community, and Mosaic had trouble reaching these communities. Mosaic America developed the concept of the Mosaic Atlas as a way to facilitate this form of connection. Priya Das described the concept for the Mosaic Atlas as a map of the Bay Area with the functionality of both LinkedIn and Wikipedia. It would be able to connect organizations and communities by creating a network similar to LinkedIn. The tool would provide information about the various groups featured on the Mosaic Atlas in a similar way to how Wikipedia presents information. The Wikipedia and LinkedIn model for the Mosaic Atlas helped me conceptualize the Atlas into the informative and networking parts.

Mosaic America partnered with San Jose State University to facilitate the development of the Mosaic Atlas. Mosaic America began working with a team of geographers and ethnographers headed by Dr. Jan English-Lueck and Dr. Kerry Rohrmeier.

To begin with, we developed a database that collated data about the different people and organizations featured in the Mosaic Atlas. The information in the database included location data, the type of organization or the form of work the person does, the languages spoken by these people, how they identified themselves, and links to images and websites. The other parts of the Mosaic Atlas project could then draw from the information in the database. The other primary aspects of the Mosaic Atlas are the explorer map and the StoryMaps. Participants also viewed these two parts as similar to the LinkedIn and Wikipedia model I mentioned previously. The explorer map acts in a similar way to LinkedIn, providing a profile of the points on the map, and the StoryMaps

acts as the Wikipedia side of the Mosaic Atlas, providing deeper information and a narrative. It is important to note that there is overlap between the two sides as both provide links to each other and the organizations on the Mosaic Atlas. The explorer map provides demographic information about the different parts of the Bay Area and points denoting different organizations and people within arts and culture. Mosaic America does not feature content not agreed to by the organizations and people that appear on the Mosaic Atlas. These points on the map would provide information about the organizations and individuals that drew from the database we developed at the beginning of the project. The second section involved a series of StoryMaps focused on showcasing specific communities and neighborhoods in greater depth. The ethnography team developed the StoryMaps using data from oral history interviews conducted with artists and cultural educators who were a part of the communities we were focusing on. We structured the StoryMaps around an overarching narrative that described the history of the neighborhood or community and continued with the current reality of the neighborhood. We supported this narrative with pictures of the area, including images of the organizations and events, and quotes with matching audio that we pulled from the oral history interviews done by the ethnography team. We used these quotes and photographs to aid the stories we were telling about these communities and neighborhoods. The ethnography team employed two anthropology students with experience with photography to document the Mosaic Atlas project. We pulled the photos for the StoryMaps from the library of images they created.

I joined the project as part of the ethnography team. We started by developing a proof-of-concept map focused on Japantown San Jose. Building this proof-of-concept

started by collecting survey data from Mosaic America events about the people who came to those events, touring Japantown to get an idea of the area we were working in, and meeting and interviewing people in the community. We used the software ArcGIS for the Explorer map and the StoryMaps. This software allowed us to tie the data we collected to specific points on a map. For StoryMaps, we used ArcGIS to develop web pages with embedded maps to show where the places that we featured on the map were located. We could then connect the StoryMaps directly to the Explorer map to provide greater insight into the communities featured in the Mosaic Atlas.

In addition to working as part of the ethnography team, I joined this project to study the user experience of the Mosaic Atlas. Because the rollout date for the Mosaic Atlas 1,0 was not until June 30, 2023, I could not directly study the completed Mosaic Atlas. Instead, I was able to use prototypes and early proof-of-concept demos to help with early-stage development. As a result of this situation, I needed to do extensive research on Mosaic America as a key stakeholder to help them identify their mission. As developers of the Mosaic Atlas, Mosaic America is critical to understanding the project's goals. Mosaic America governs users whose interaction with the project directly affects all other users as the stakeholder in charge of developing and maintaining the Mosaic Atlas (Youngblood and Chesluk 2020). Because Mosaic America is the chief developer of the Mosaic Atlas, they act as generative users who alter the product (Youngblood and Chesluk 2020). In addition, Mosaic America is a direct user of the Mosaic Atlas because they developed it in part to help facilitate their own work as a non-profit arts organization (Youngblood and Chesluk 2020).

In order to research Mosaic America and the Mosaic Atlas, I used a design model focused on generative research (Dubberly and Evenson 2010 and Blomberg and Darrah 2015). I met with and interviewed Mosaic America to determine their goals and outcome for the Mosaic Atlas and their views on how it would affect users. I then studied the process of developing the Mosaic Atlas by participating in its development as part of the ethnography team and by meeting regularly with the head developer Judi Heher. I then interviewed potential users about the Mosaic Atlas in its unfinished state to ascertain their views of the project and how the developers could improve it. Generative research involves repeating these processes to refine the project further until it is ready for release (Dubberly and Evenson 2010). My job was to research two specific aspects of the project. The first was to identify all potential users for the Mosaic Atlas. This process included more than primary users of the Mosaic Atlas but all potential parties affected by the Mosaic Atlas. I identified potential primary users, including people working in the arts, public health, local government, and education. I also identified the people living in the communities included in the Mosaic Atlas as potential users due to the effect the atlas might have on their lives. The second aspect I researched was what the specific user experience of the Mosaic Atlas meant to the user groups that I had identified. I worked in the conceptual and prototyping stages of development to gain insights on potential use cases for the emerging tool that I could take back to leadership and the Explorer Map development team. I obtained information on usability that I brought back to the Mosaic Atlas developer, Judi Heher. I urged participant-users in my research to imagine scenarios in which the map could be helpful or harmful.

To do this research, I conducted a series of user experience interviews with potential users, including members of Mosaic America, mined oral history interviews and surveys conducted as part of the development of the Mosaic Atlas, and participated in developer meetings and events. I then coded and analyzed the data gained from these processes and presented my results to Mosaic America. I developed my codes based on the work of Michael Youngblood and Benjamin Chesluk's work in Rethinking Users and my discussions with Mosaic America and the developer of the Mosaic Atlas Judi Heher (Youngblood and Chesluk 2020). My first set of codes identified potential use cases from my data, such as arts and education. I also identified different types of users as defined by Youngblood and Chesluk based on how they interacted with the product (Youngblood and Chesluk 2020). I developed my codes on users and use cases from a combination of the literature on users and from working with Mosaic America. Mosaic America helped me identify specific use cases they were interested in, such as organizers and public health. I also identified concerns about equity and security based on my discussions with my interviewees. I worked closely with Usha Srinivasan on this project, who used her connections through Mosaic America to put me in touch with many of the people I interviewed over the course of my user experience research project. I go into greater detail about my methods in Chapter 2 of this project report.

Literature Review

In the process of developing my user experience research project for the Mosaic Atlas, I reviewed the relevant literature. In this literature review, I looked at literature about the study of online and offline space, mapping, users and use cases, non-profit organizations, and access to new technology. I used this literature to help me develop my

approach to the project, develop research and interview questions, inform my analytical codes, and structure how I communicated with Mosaic America and the development team.

Space and Mapping

The Mosaic Atlas, as a project, seeks to bring real physical world communities together through an online digital tool. To understand this concept, one needs to understand space in terms of digital and physical contexts. Space and community online are recursive spaces (Kelty 2005). What happens in a recursive space defines it (Kelty 2005). Christopher Kelty (2005) argues that the internet is a space defined by the meaning and actions of people. Social imaginaries define communities and the internet (Kelty 2005, 200-202). Coppélie Cocq (2013) conceptualizes space and community on the internet by making analogies to geography in the physical world. Cocq (2013) argues that digital networks create space out of the different websites connected by a shared understanding of a specific topic or place. Digital networks mirror how people understand geographical location. The contents of the network create boundaries in digital space, not physical features (Cocq 2013, 9). In a different approach, Kris Cohen (2005) argues against the understanding of the "online" as being defined as spatial. Cohen (2005) uses the model of online publics, which are places online that people designed to be public; however, Cohen (2005) argues that it is unimportant that they are places, but rather, it is more important to understand how they became public as activities create them and are unpredictable.

The concept of online space provides challenges in how ethnographers position themselves in their research (Jordan 2009). Defining a place of study online is difficult,

as what community or place is online is somewhat unclear (Kelty 2005; Cocq 2013). Brigitte Jordan (2009) argues for the hybrid nature of online space, which complicates the doing of ethnography further as sites of study extend to both offline and online areas. Jordan (2009) argues for hybrid ethnographies, which require a multi-sited approach to ethnography. Here the sites are the places online that are relevant to the subject and the offline realities of the people who act within that online space. The understanding of online interactions and how they affect and are affected by offline space connect offline and online spaces. (Jordan 2009). Blurring the boundaries between online and offline space provides a path to deal with the challenges of ethnography online. While most of the processes for developing the Mosaic Atlas focus on the communities of the physical world, the tool, the Mosaic Atlas, is online. Mosaic Atlas blends the functions of Wikipedia and LinkedIn to build community connections. In this way, the Mosaic Atlas is a hybrid space, and anthropologists should interrogate how it blends physical and digital space (Jordan 2009).

In discussing space, it is important to understand mapping concepts to develop the Mosaic Atlas. Swedish ethnographer Coppelie Cocq conceptualizes networks similar to mapping geographic areas. How people present themselves online can define space and borders (Cocq 2013). Mosaic America and the ethnography team developed the StoryMaps for the Mosaic Atlas in a similar way. The StoryMaps feature networks and communities Mosaic America places on the explorer map. The information placed on the StoryMaps and the Explorer maps about these networks and communities becomes a part of the digital presence of those groups. Mapping as a tool for ethnography and the public good is also essential to this project. Maps are tools that allow people to engage with the

world around them and inform them about their surroundings (Dalstrom et al. 2022).

Despite its usefulness as a tool, mapping is not a perfect process. People do not follow the strict lines that mapping can place them in. Neighborhoods interconnect, and people move between them, which makes it hard to define areas perfectly (Dalstrom et al. 2022).

Users and Use Cases

The focus of this project was on identifying who the users of the Mosaic Atlas are and the potential use cases for the project. In terms of the Mosaic Atlas, a use case is a situation where the Mosaic Atlas could be used by different stakeholders in the organizational ecosystem. In Rethinking Users, Michael Youngblood and Benjamin Chesluk argue that broadening the term user is important for user-based design (Youngblood and Chesluk 2020). They argue that anyone who interacts with or is affected by the product is a user. Youngblood and Chesluk include those who actively use the product or service differently and those who may not actively or consciously use the product or service but are nonetheless affected by it in their definition of a user. Using this understanding of the user, we understand that products and services are not necessarily developed with every kind of user in mind. Kris Cohen similarly develops this idea. According to Cohen, a user is a person who uses a particular product. Cohen further states that researchers usually study users to design products because they are both previous and possibly future buyers. Cohen disagrees with this approach to users and their part in design research by stating that one should not only study the user when researching a product. Users are more than just their relationship to a product as they are people, and one should look at people who are often excluded from being users. Like Youngblood and Chesluk, Cohen argues for a broader definition of a user. I used the idea

of a broader definition of the user to bring concerns of security and equity into the discussion of users surrounding the Mosaic Atlas. Specifically, when talking about developing a map, Dalstrom argues that researchers should consider both the community and the people developing the map as users. This definition includes the user researchers as well (Dalstrom et al. 2022).

Multidisciplinary Ethnography and Non-Profit Partners

The Mosaic Atlas requires working with many communities within the Bay Area and with people from different backgrounds, such as geographers, anthropologists, artists, and tech workers. The internet provides new opportunities for anthropologists to do multi-sited ethnography (Faulkner and Melican 2007) and multidisciplinary studies (Fortun et al. 2014). Because the internet connects people worldwide, it is often impossible to capture a good picture of a particular topic without doing multi-sited studies (Faulkner and Melican 2007; Jordan 2009). At the same time, the internet helps facilitate multi-sited studies. Studies over the internet can take advantage of it to connect to multiple sites easily (Jordan 2009).

Regarding multidisciplinary studies, the internet provides a way to create databases that can synthesize and share knowledge across disciplinary boundaries (Fortun et al. 2014). The Mosaic Atlas project combined teams from different backgrounds and pulled data from communities across the Bay Area and Silicon Valley. We used the internet to facilitate our different teams and data gathering through technologies such as Google Suite and Zoom.

Mosaic America and the San Jose State team worked together from different backgrounds on the Mosaic Atlas. Working with nonprofits and community-based

organizations has been a common practice within applied anthropology (Dalstrom et al. 2022; Hyland and Bennett 2013). Working with community-based organizations provides benefits for both anthropologists and organizations. Working directly with local communities provides inroads for anthropologists to effect direct change and provide expertise in data gathering and analysis while also learning from the specific perspectives of the organizations and communities they work with (Hyland and Bennett 2013; Zebracki and Bekker 2018).

Access

When discussing how people interact with technology, it is important to discuss access to it. Not everyone has access to the internet (Cohen 2005), and not everyone who has access to the Internet has equal access (Kelty 2005). Kris Cohen problematizes the notion that people who do not have access to the internet are not affected by and do not affect it. Using the broader definition of user discussed earlier; researchers should still consider users without access to the internet when discussing use cases.

A way of getting around problems of access comes from the concept of open source and open access information (Fortun et al. 2014). In these places, knowledge is made public, so access to it on the internet is free. This case is similar to how wikis work; however, in the case of wikis, unlike the work of Fortun et al. (2014), there is little in the way of vetting the knowledge on the platform. For the Mosaic Atlas to be a helpful tool, the Mosaic Atlas team needs to ensure it is accessible. To access the Mosaic Atlas, a person will need to have access to the internet; however, we need to consider how to make the Mosaic Atlas accessible to people without rigorous digital literacy.

CHAPTER TWO

USER EXPERIENCE RESEARCH OF THE MOSAIC ATLAS

Abstract

The non-profit organization Mosaic America partnered with San Jose State University to develop the Mosaic Atlas, a tool for learning about and connecting with different artistic and cultural communities in the Bay Area, amplifying cultural arts, and co-creating a sense of belonging in the Bay Area. I performed a user experience study in order to determine potential use cases for the Mosaic Atlas and to understand the potential positive and negative impacts that the design of the Mosaic Atlas could have. I employed a broad definition of the user that extended past the person directly interacting with the Mosaic Atlas in order to help Mosaic America develop appropriate modifications to their emerging product, the atlas itself, and the outreach services that would accompany the atlas.

Keywords: Users, Equity, User Experience, Mapping

Introduction

I performed a user experience study for the Silicon Valley-based non-profit organization Mosaic America. Mosaic America's mission is to work with and bring together communities in the Bay Area through intercultural art. Mosaic America organizes events to bring different communities together to create art. To further their mission, Mosaic America began developing the Mosaic Atlas. The Mosaic Atlas is an online map that provides information on artistic and cultural communities in the Bay Area and demographic information about the area surrounding these communities. I joined the Mosaic Atlas Project in the early stages of development. Mosaic America needed information to help them develop their strategic outreach and identify direct users

to help them redesign interfaces. I also worked with the three parts of the Mosaic Atlas. The three parts of the Mosaic Atlas are the database, the Explorer Map, and the StoryMaps. The underlying database holds information about the people, organizations, and communities featured within the atlas, including contact information. The other two parts are the Explorer Map and the narrative StoryMaps driven by the mapping program ArcGIS. The Explorer Map pulls data from the database and places it on a map of the Bay Area, and the StoryMaps go in-depth on specific communities and neighborhoods. The StoryMaps provide a detailed history of the neighborhoods and communities featured on the map, along with photographs and quotes with audio from members of the communities.

User experience research and design have often focused largely on the experience of the assumed primary user. In the case of a map, this is the person reading it; however, other users are essential to consider in this design. These users include the experience of the places featured on the map and those who work or live in those places or others navigating the same area. Many different people interact with maps, so some organizations and businesses try to make themselves more visible to "put them on the map" or do the opposite and do not want that same sort of attention. Map readers include people who need to get around an unfamiliar area or are trying to find interesting places to visit. Equally possible is that some map users, such as policymakers or organizations interested in outreach, might be interested in using a map to effect change in the same area (Youngblood and Chesluk, 2020). My role in designing the Mosaic Atlas was to identify the different kinds of users, document use cases, and capture user experiences once Mosaic America created a prototype. In this case, the definition of a user extends

not just to the person viewing the Mosaic Atlas but also all of the groups and people that are affected by what the Mosaic Atlas is showing. These groups are as varied as the potential primary users involved. These other users could include people living in a neighborhood that the Mosaic Atlas is featuring who are not artists or organizers. For example, many people live in San Jose's Japantown who are not connected to the artists and organizations featured on the Mosaic Atlas; however, the use of the atlas could bring more people to the neighborhood, which in turn could affect the lives of these people. They are not primary users; however, using Youngblood's definition of a user, the effects of the Atlas on their lives qualify them as one (Youngblood and Chesluk 2020). Youngblood and Chesluk extend the definition of a user past people who directly and consciously interact with a product or service. People living in San Jose's Japantown may not directly interact with the Mosaic Atlas. If other people use the atlas as a tool to effect change in the area, then changes might affect other Japantown residents who are not involved in the arts or represented in the atlas.

Working with the non-profit organization Mosaic America I conducted a series of user experience interviews focused on determining the usability and potential use cases of the Mosaic America Cultural Atlas Project. I did this work in tandem with a team of geographers and anthropologists who worked to develop the Mosaic Atlas alongside Mosaic America by developing the online Mosaic Atlas Explorer Map and a series of StoryMaps dedicated to providing in-depth information about neighborhoods and communities featured in the Mosaic Atlas. In order to develop both the Mosaic Atlas and the StoryMaps, we used software called ArcGIS. Working with Mosaic America, we developed a database of points of interest and people that would appear on the Explorer

Map and the StoryMaps. This database provided information about the points of interest, including people who worked for them, what cultures they identified with, what languages were spoken there, links to the online presence of these points, and photographs. The Explorer Map then drew the information from the database and transformed it into points of interest on the map. By clicking on a point on the Explorer Map, the information from the database would appear, including the photos and a brief blurb about the location. ArcGIS allowed us to build websites for the StoryMaps with a map embedded in it. On this map, we placed important landmarks within the neighborhoods for which we built StoryMaps. We could then add more in-depth information about the location along with audio pulled from oral history interviews and links to websites about the landmarks. The StoryMaps also included broader information about the neighborhoods and communities in order to provide additional context.

The user experience research focused primarily on developing potential use cases for the Mosaic Atlas rather than a deeper understanding of what changes Mosaic would need to make to meet current use cases. I developed my understanding of users based on the idea that they are more than just those directly interacting with the products or services but all groups affected by its creation and implementation (Youngblood, Chesluk, and Nadeem 2021 and Cohen 2005). I also pull from the ethnography of services (Blomberg and Darrah 2015) and understandings of online space and mapping (Cocq2013 and Dalstrom et al. 2022).

Background

In 2019, the founders of the non-profit organization Mosaic America began developing the prototype of a cultural atlas focused on providing connections and

information about communities in the Bay Area that lacked visibility. Priya Das, one of the co-founders of Mosaic America, described the goal of the Mosaic Atlas as a map of the Bay Area with aspects of Wikipedia and LinkedIn built into it in order for organizations, communities, and artists to connect and learn from each other. This model for the Mosaic Atlas would mean that the Mosaic Atlas would have the background information and context provided by a Wikipedia article for the elements featured on the atlas, as well as ways to connect and network with other featured organizations similar to LinkedIn. For example, each year, Mosaic America puts on a festival at the Mexican Heritage Plaza in San Jose. This festival brings together performers from across the Bay Area and from different cultural backgrounds, including Brazilian Capoeira performers, members of the Muwekma Ohlone Tribe of the San Francisco Bay Area, and Scottish Dancers. The Mosaic Festival allows communities to connect on equal footing as performers.

Usha Srinivasan and Priya Das, two artists with experience working in the Silicon Valley tech world, founded Mosaic America. They founded Mosaic America based on the observation that, while the Bay Area is highly diverse, people tend to stay within their communities and groups and, as such, separate themselves from each other. Mosaic seeks to bring different communities together through collaborative artistic and cultural displays and events. They initially conceived the Mosaic Cultural Atlas as a tool to help facilitate this goal with funding by the Hewlett Foundation. The Mosaic Atlas would have a public front-facing site that anybody with internet access could use to discover and learn about artistic and cultural events in the Bay Area. Artists and organizations could

use the Mosaic Atlas to meet and communicate with each other in order to promote collaboration.

In 2021 Mosaic America partnered with a team of geographers and anthropologists headed by San Jose State University professors Kerry Rohrmeier and Jan English-Lueck to work out the processes needed to create an atlas, create a proof-of-concept tool, and develop the 1.0 version of the Mosaic Atlas. I began work on the project as part of the ethnography team headed by Dr. Jan English-Lueck. We developed a proof-of-concept of the Mosaic Atlas focusing on the San Jose Japantown. We worked on developing surveys for the visitor experience of people who went to Mosaic events. We also developed interview protocols to interview people for oral histories targeted to specific categories, such as artists, cultural advocates, curators, art services hub staff, and more. During this time, we spoke with the Mosaic team about the need for user experience research to understand the people for whom the atlas was being made and what it needed to work for those users.

In January 2022, the focus of the Mosaic Atlas began to shift and evolve. While artists and cultural organizations were still important to the Mosaic Atlas as a tool, the focus shifted to include how the Mosaic Atlas can help connect organizers and funders to underserved communities. This shift came in part due to a realization that the Mosaic Atlas had the power to help people in public health and local government. Mosaic America chose to prioritize these new use cases. This shift allowed Mosaic America to develop grants by increasing its scope to include the public sector. Much of my early user experience research focused on investigating the use cases of organizers and public health

and working with the Mosaic America leadership to clarify how their strategic outreach goals were changing.

In March of 2022, I began interviewing individuals from various backgrounds who we believed had a potential interest in the project. This interview process was completed in October of 2022 and was followed by an analysis of my findings and a presentation to Mosaic America on November 15, 2022. Mosaic America took my findings to heart and is working to address the various concerns that participants brought up in the user experience research process.

Methods

My primary method of data collection was a series of user experience interviews. However, I also collected data from mining the oral history interviews created by the ethnography team, analyzed recordings of public events that discussed the atlas, and participated in developer meetings. The data collected from the oral histories and the public events helped to provide more data to supplement the interviews, while the developer meetings provided additional context for my data. I began my sampling with Mosaic America itself in order to develop an understanding of their expectations and assumptions about the project. After Mosaic America, I collected data from many different sectors that both Mosaic America and I had identified as potential use cases. These use cases included community advocacy, the public sector, education, public health, art, and art education. Sampling for my interviews began with a discussion with Usha Srinivasan, the president of Mosaic America. Interviewing members of Mosaic America and, specifically, Priya, Usha, and Judi, who were heavily involved in its

development from early on, helped significantly in identifying themes to look for in the interview process.

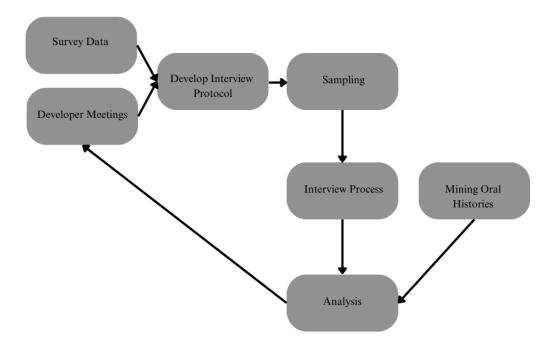


Figure 2.1 Research Process

In addition to interviewing members of Mosaic America, I participated in numerous development meetings with Mosaic America and the ethnography and geography teams. By meeting with Mosaic America, I was able to discuss the user experience of the Mosaic Atlas as I was still developing my user experience study. These meetings also allowed me to understand Mosaic America's current goals for the Mosaic Atlas. These interviews and meetings provided me with a guide to the issues they were struggling with and a way to compare their ideas for the Mosaic Atlas with its usability within different potential use cases. Usha Srinivasan provided me with contacts to members of Mosaic and used the

connections of Mosaic America as an arts services non-profit with extensive existing connections to put me in contact with other people who might have insight into the project. I continued to find potential interviewees through purposive sampling, snowball sampling, and contacting individuals who had added their contact information on visitor experience surveys the ethnography team conducted earlier in the project. I also used oral history interviews performed by the ethnography team and recorded Mosaic Atlas development meetings to add further user experience data. I had little trouble finding organizers and people in public health to interview; however, I found it more difficult to get responses from artists and cultural educators.

Early surveys conducted by the ethnography team helped develop interview protocols, sampling, and, eventually, project analysis. I conducted nine semi-structured interviews with artists, community organizers, arts educators, students, and public health experts. I also included people without specific expertise relating to the project who nonetheless participated in cultural events in their communities. These interviews focused on determining use cases and people's own user experience impressions of the Mosaic Atlas. The interviews began with questions about the interviewee, including who they were, what they do professionally, and their experiences as participants and observers of arts and culture. The interviews continued with a demonstration of the Mosaic Atlas, followed by a period where they would ask questions about it and clarify. Finally, I would ask questions about their reactions to the Mosaic Atlas, including what they were concerned about and what uses they could see for it. These questions were guidelines for the interviews as they often led more deeply into specific topics regarding the Mosaic Atlas. In the early stages of the user experience research, I struggled to find a way to

explain easily and clearly the functions of the Mosaic Atlas to my interviewees. As we did not have a working demo of the program when conducting these interviews, I worked with Judi Heher to create a short video dedicated to showing off the functionality of the Mosaic Atlas prototype and providing a visual aid during the interview. As the Mosaic Atlas developed alongside my user experience interviews, there were several times when I updated the video and information I provided as geographers added new features and as the scope of the project changed to focus more on its impact in the public sector.

In addition to the user experience interviews, I mined the oral history interviews that the ethnography team conducted for the StoryMaps. These interviews, done with artists and community organizers in the Bay Area, were particularly useful in identifying how these groups of people thought about connecting with each other and the communities they served. Chris Esparza, the Director of Community Development for the School of Arts and Culture, discussed the complicated nature of community in Silicon Valley in this oral history interview.

"The things that we want to cultivate, there is a sense of two worlds, right? There is a sense of an immigrant community, a low-income immigrant community that has some beautiful things happening. There's definitely, if you know, the neighborhood, the joy that's here in food and, and arts and culture and, and the people. At the same time, we have Bart coming, we have Google coming, and we have, we live in one of the most expensive regions in the world."

Chris Esparza explains the duality of living in a low-income immigrant community in Silicon Valley.

My analysis began as a heavily exploratory process in which I developed themes based on my line-by-line text coding. These themes included discussions of equity, security, education, public health, community, networking, and access. Themes focused

on education and public health came from Mosaic America's interest in the sectors, while themes of equity and security appeared after exploring the user experience interviews I performed. These themes were prevalent in almost all of my interviews. I identified access, networking, identity, and community themes through the literature on developing online tools and user experience. I developed these themes based on the concept of online and offline hybridity, which argues that people's use of online tools affects their offline experiences and vice-versa (Cocq 2013; Jordan 2009; Cohen 2005). After analyzing the data from interviews and other sources, I developed a combination of general comments and concerns. Then I looked at the themes shared between users from similar backgrounds and themes brought up across the board, such as security concerns.

Equity and Security

Table 2.1 Identified Issues

Issue	Recommendation	Impact
The Mosaic Atlas holds much data, and how it is managed and protected is important to those who provide it.	Mosaic America should be more transparent with its security protocols to reassure users that the tool is safe.	Mosaic America was receptive to the recommendation and acted to be more publicly clear about how they protect the data they collected.
Users feared that the Atlas could harm equity, bringing attention to communities that would rather be left alone and by allowing the exploitation of communities by outside influences.	Mosaic America should work with the communities they are featuring to ensure that the Mosaic Atlas will be used equitably.	Mosaic America clarified its goals to the communities they work with and began working with Data Science for Social Good to ensure that the Mosaic Atlas will be used equitably.
Users felt the Mosaic Atlas was extractive and did not bring anything to the community.	Mosaic America needs to explain the project to be clear that it will give back to the community.	Mosaic America took these concerns to heart and reframed the project so that community partners understood it was collaborative.

Equity and security appeared as the most prevalent concerns for users of the Mosaic Atlas. Users were worried about how the Mosaic Atlas might be used by people looking to exploit it and the processes Mosaic America used to acquire data for the atlas. Table 1

describes these concerns, the recommendations I provided to Mosaic America, and the impact on the project. I go into detail about each of these issues below.

One of the primary concerns expressed by users across the board was the security and management of the large amount of data gathered on the Mosaic Atlas. Users were concerned about how Mosaic America planned to keep the data they collected confidential and out of the hands of unauthorized users. Security was a valid concern as the Mosaic Atlas contains data not only on arts organizations and demographics of the area but also some personal information together with information on at-risk communities. While all the groups and people who appear on the Mosaic Atlas consented to appear there, there is a responsibility on the part of Mosaic to understand who has access to this information and how they might use it. While Mosaic America agreed and worked toward being more transparent with their security protocols, participants articulated a deeper concern. They worried about who has access to this data and how it can be used. One of my interviewees, the executive director at the School of Arts and Culture, expressed this concern: "There's a lot of data to be mined. And if you're asking for arts organizations to share their data and demographics, if it's not the aggregate, right, that's a lot of potential power."

People saw the Mosaic Atlas's potential for promoting equity but were also concerned about how it could potentially harm equity. Many interviewees, especially those in the arts education sector, were particularly interested in discussing the Mosaic Atlas' potential impacts on equity in the Bay Area. Interviewees in the public health, community advocacy, and artistic sectors found the use of the Mosaic Atlas as a valuable tool to connect communities to each other and to connect people within a community. In

this way, the Mosaic Atlas fulfills its goal to connect people outside their usual circles.

Artists especially saw the Mosaic Atlas as a way to connect with communities they identified with;

"...as a Middle Eastern artist, it has been a lifelong challenge of trying to find my community, trying to find where we congregate, where we make art, and there are some great organizations in the Bay Area. But it's not easily accessible, especially as a young person."

The artist found it difficult as a young person to have the cultural capital to access the Middle Eastern artist communities in the Bay Area on their own or through these organizations. They felt that the Mosaic Atlas could be a useful tool for them to find a community they could connect with culturally to make art.

The StoryMaps section of the Mosaic Atlas was especially helpful in forming and showing these connections as they provided a voice to communities that have often had difficulty being heard. At the same time, interviewees worried that the Mosaic Atlas could harm equity. Interviewees from the community advocacy and arts education sectors expressed concern that the Mosaic Atlas does not do enough to ensure that communities that do not want to be seen are not shown on the map. One interviewee was specifically concerned that Mosaic America and the Mosaic Atlas were using these communities without giving much back.

"And so, like, in a way, you are coming into this community as a tourist yourself. And so I think that's what's really hard for me to be like, hey, let me open up, you know, my network and my connections when I don't necessarily see a lot of that deep awareness. Or maybe the respect is there, but deep awareness of what is currently going on in this community."

This interviewee felt that Mosaic America and the Mosaic Atlas team were not working with the community but coming across as tourists. Further into development,

Additionally, Mosaic America took to heart the concerns surrounding equity and reframed the project to ensure that community partners knew the efforts were collaborative and not extractive.

As a whole, these are the major pitfalls experienced by the Mosaic Atlas as a tool. The potential of the Mosaic Atlas as a networking tool for the communities, artists, and cultural educators who appear on the Mosaic Atlas is a major step in helping give back to these communities. Additionally, the end goal of the story map section of the Mosaic Atlas, which uses information provided from the oral histories done by the ethnography team, is for these to be eventually developed voluntarily by the groups and people featured on the Mosaic Atlas. These community-focused steps could help to alleviate the concerns regarding the project's equity. Mosaic America is taking steps to address the problems found in this research. Mosaic America has reached out to community organizations. They are creating cultural convenings of BIPOC artists to shape the direction of the StoryMaps and advisory groups to identify concerns about the project earlier. In addition, Mosaic America has begun working with Data Science for Social Good, an organization dedicated to ensuring that organizations use data to promote equity.

Users and Use Cases

Using the data I gained from my research, I also looked to identify major use cases for the Mosaic Atlas and what their wants and needs for the Mosaic Atlas would be. The first use case I identified was that of public health workers. Public health workers saw the Mosaic Atlas as useful in disaster preparedness as a way to develop community action

during a disaster. The demographic aspects of the Mosaic Atlas were especially important for this use. In addition, the Mosaic Atlas has the potential to provide public health workers with a way to identify potential hubs for communities that do not have a strong, unified presence. One interviewee described the difficulty contacting members of the native Hawaiian community in the Bay Area around issues of suicide due, in part, to a lack of knowledge on where to start working with said community. Nonprofit and public organizations could use the Mosaic Atlas, in this case, to identify these community hubs, not just for cultural engagement but for health as well.

Artists and cultural educators found the Mosaic Atlas useful for connecting communities their shared identity with. For example, the young Middle Eastern artist mentioned earlier saw the potential for the Mosaic Atlas to aid in connecting with her community. In addition, the artists were excited by the idea of using the Mosaic Atlas as a tool for telling their own stories through the StoryMaps and connecting with others. However, one artist was concerned that people involved in the arts might have difficulty interacting with the technology. The artist pointed out that not all artists are as technologically literate as the developers of the Mosaic Atlas. This lack of technical and geographic literacy made the use of the Mosaic Atlas somewhat intimidating. One suggestion to address this issue was to include features encountered in more commonly used online tools, such as a search bar within the Mosaic Atlas, to make navigation easier. Organizers and policymakers saw potential in the Mosaic Atlas as a tool to help them reach out to communities. Combining the StoryMaps with the Explorer Map helped them understand whom they were working for and with. The StoryMaps provided context for the data-heavy, demographically focused atlas.

Conclusions

User Experience research has been especially important for this project to understand the full impact that the Mosaic Cultural Atlas might have. Mosaic America is discussing plans for more user experience work as the project moves forward. The most important aspect of developing this user experience study was understanding a broader concept of the user when researching potential use cases. Studying Mosaic America itself was especially important to understand the context of the project and, from their perspective, to understand where what they found useful about the Mosaic Atlas differed from other potential users. This allowed for the ability to identify many potential pitfalls this tool could have in terms of equity and finding ways to combat the same. After identifying the potential issues that the Mosaic Atlas presented, tracking how Mosaic responded to the criticisms was important. This research identified just how far-reaching the Mosaic Atlas can be as a tool. The primary focus for future user experience research is ensuring that the data compiled in this atlas is used to promote equity and communication rather than harm it.

Biography

Graham Wade (gduncanwade@gmail.com) is a Research Assistant at and graduate of San Jose State University. He conducts user experience research focusing on online space and interaction and how people identify themselves online. He earned a B.A. in Anthropology from Saint Mary's College of California in 2019.

CHAPTER THREE

CONCLUSION

Introduction

The user experience research that I performed for this project focused primarily on the potential use cases of the Mosaic Atlas as well as concerns around equity security and public health. These focuses came about through a combination of topics that my partner, Mosaic America, were most interested in, such as who could be considered potential users and what they wanted out of the Atlas, as well as s specific interest in public health and policy making from local government. The focus on security and equity came about from an overwhelming interest in the project's effects and understanding of these topics from almost every source of data I analyzed, including those sourced from within Mosaic America. As such, I focused primarily on these topics in this project report. I will discuss some of the unexpected use cases that I found throughout my research, such as student use, as well as limitations to the research and possible future research connected with this project.

Students

Students found a use for the Mosaic Atlas outside the focus on connecting artists with the community, equity, and public health. The students I spoke with imagined they could use the Mosaic Atlas as a research tool and as a way for them to learn more about their current environment. Students believed the Mosaic Atlas would be useful as a tool for researching and exploring the area in which they lived. They saw potential in the Mosaic Atlas's use through the connection between the StoryMaps and the more demographically oriented atlas to provide context for what they were researching. The Mosaic Atlas was

particularly useful to those studying the social sciences. Students felt that they could use the Mosaic Atlas to identify topics to research around their area and as a place to pull demographic information for research assignments. What was interesting is that students explicitly identified these potential use cases. Students also linked these potential use cases for the Mosaic Atlas, with uses less focused on education. These same students felt that they could use the Mosaic Atlas to connect with their own communities. One student talked about using the tool to learn about parts of their city they did not know well.

"So I think that it's very educational. But thinking back, you know, I have lived in San Jose my whole life, and I also don't spend that much time downtown. So even in that area, I feel like as a student who's not so familiar with the area, I think that that would also be useful, just so that you can kind of see what's available downtown"

They specifically imagined that the Mosaic Atlas could identify festivals, events, and venues in the area that students found fun and exciting. As many students move away from their homes for school, many find it challenging to connect with their new surroundings. They identified Mosaic Atlas as a tool that could both help educate students about and connect students with their new surroundings. This use of the Atlas could bring up concerns about tourism and taking from the communities rather than working with them; however, it is a way to connect and bring students into their new community. By using the Mosaic Atlas for these ends, students also identified a use for the Mosaic Atlas as a tool to connect higher education institutions to the communities they exist in and serve. In this way, the university becomes another point of connection on the Mosaic Atlas, similar to the other communities and neighborhoods that Mosaic America had identified.

Access and Public Use

A common theme early in the Mosaic Atlas research was access to and ease of use of the atlas. This discussion was more common early on when discussing the potential of the atlas as a tool for the general public. As the scope of the atlas shifted to include use cases outside of the more public tool, I began to focus on these new use cases as a researcher and for the people I interviewed who understood the Mosaic Atlas's new path. A question that an interviewee asked me earlier on was,

"I could see doing research, maybe. But as a consumer, as a user, I think that people tend to search are looking more for, like, kabuki theater or, or a restaurant that serves dim sum, you know, your traditional Indian dance, or I was trying to think why just the basic regular everyday person would be wondering about or thinking about cultural experiences in Japantown".

They brought up an important question: how do we convince people that the Mosaic Atlas is more helpful and convenient than a quick web search? People were concerned that the Mosaic Atlas would not be convenient enough for the average person to use over larger and more popular systems. Mosaic America was hesitant to use social media for advertising the Mosaic Atlas, as it is hard to control how information spreads on social media. One potential solution was to develop and place QR codes in community hubs to provide information and context similar to brochures. This solution ran into similar potential issues of catering to tourism rather than the communities that the Mosaic Atlas serves.

Working with Non-Profit Organizations

Working with a non-profit organization such as Mosaic America brought with it unique opportunities and challenges that I had not experienced in previous research I have done. Working with Mosaic America provided me with access to their extensive

network of artists, performers, and other non-profit organizations. I was able to learn and work with people from many different backgrounds who all wanted to improve their communities. I was able to sit in on developer meetings, talk with artists and organizers, and learn from discussions with members of local government all through Mosaic America's connections and willingness to work with me on my user experience research. In addition, I worked as a part of the ethnography team that helped to develop many of the research protocols for the Mosaic Atlas and developed the StoryMaps section of the Mosaic Atlas. As a member of the ethnography team from early in the project, I gained another separate perspective yet still connected with my work as a user experience researcher for the Mosaic Atlas. I was able to provide insight from my user experience research in meetings with the ethnography team and Mosaic America as a whole as I was performing my research, not just when I presented my final findings. The familiarity with the Mosaic Atlas that I gained working as part of the ethnography team and by working closely with the geography team was invaluable for developing my research and analyzing my data. Working with Mosaic America also led to challenges regarding the often-changing nature of the Mosaic Atlas. While the overall concept of the Mosaic Atlas stayed the same throughout the project, it had many changes that affected the focus of my user experience study. Non-profit organizations are chaotic and require a great deal of organizing. I found that when compared to my previous experiences as a researcher in a more academic setting, the chaotic nature of non-profit work was different. I had to learn how to adapt not just my user experience project to the changing focusses of the project but also myself to the changes in plans that went along with the everyday work of the non-profit. This adaptation included changing the dates of events and changes in the

processes by which we collected data and processed data for the Mosaic Atlas. The chaotic nature of non-profit work is nothing new to the field. However, it required adjustment on my part to match the challenges and advantages it presented.

Limitations

There were three primary limitations to my research. These limitations were the small sample size of the interviews, the lack of a fully functional demo of the Mosaic Atlas that the interviewees could use, and the lack of follow-up interviews on my part after the issues that my research brought to light. Mosaic America and the Mosaic Atlas team addressed and acted upon these concerns. The small sample size came about from a lack of response from potential participants in the interviewees. Reluctance to participate was more common among the artists and educators that I attempted to contact rather than organizers and policymakers. I tried multiple modes of communication, including email, social media, and meeting in person at arts-focused festivals such as First Fridays in the SOFA district of San Jose. My attempts at contacting people for interviews that were not successful stemmed from people stating a lack of time or no response at all. While I did interview some artists, the lack of response meant that in my data gained from interviews, there is more of a gap from the perspective of artists compared to people of other backgrounds. I offset this limitation by mining the oral history interviews done by the ethnography team, primarily done with artists and cultural educators.

The second limitation that I encountered in my research was the lack of a fully functional demo of the Mosaic Atlas that my interviewees could directly use. I developed and performed my research alongside the early development of the Mosaic Atlas and was reliant on its development to demonstrate the Mosaic Atlas to the people I interviewed.

Due to this issue, I worked with Judi Heher, who built the Mosaic Atlas within ArcGIS, in order to create a video that showed off the functionality and look of the Mosaic Atlas in its current state. While I believe this was a good stand-in for a fully functional demo of the Mosaic Atlas, an actual demo could have allowed the people I interviewed to gain more insight into what the Mosaic Atlas could do and, in turn, provide me with more data about the user experience of the data. In addition, the Mosaic Atlas changed and developed as I was performing my interviews, which meant that the information I was able to provide my interviewees at the beginning of the process was different from what I was able to provide at the end. I updated my demo video multiple times in order to keep up with the changes.

Finally, I would like to address the lack of follow-up interviews for this project at the time of this project report. It is common and important in user experience research to interview users again after the first set of issues identified in the research has been addressed. Mosaic America is still in the process of addressing the changes that they need to make to the project. They are not yet ready to perform another set of user experience interviews. Despite this limitation, there are plans already in development by Mosaic America to perform another set of user experience interviews in the future after the tool is publically available in July 2023.

I was able to use my anthropology to make a unique contribution. My anthropological approach allowed me to identify users as a social system rather than disassociated individuals. Artists, cultural educators, organizations, and community members all make up a user's shared role with interconnected use cases. As an anthropologist, I was not only

able to identify these groups as users; I was able to document how they articulated with each other through their shared experiences.

The Anthropological Difference

My anthropological approach meant I could focus on the lived experiences of the people involved in this research. I understood that people had different experiences with objects and services and would have different concerns about the Mosaic Atlas. I identified specific potential concerns through this approach. For example, an artist was concerned about how accessible the Mosaic Atlas would be to artists who did not have high digital literacy. I developed better interview and research questions by understanding their experiences with technology and services. That insight enabled me to give better feedback to the organization.

As an anthropologist, I recognized the roles of organizations in the Mosaic Atlas project. Mosaic America both developed the Mosaic Atlas and directly uses the platform. I identified their dual roles. I demonstrated how each distinct purpose translated to project development. Mosaic America, as a non-profit organization, needed to develop the Mosaic Atlas to be financially viable. As an organization, Mosaic America needed to focus on developing grant proposals, promoting the Mosaic Atlas, and creating the tool. As an anthropologist, I was able to see research arenas that extended beyond this goal. I gained insight into the thoughts of potential users that would not have been included had Mosaic America been directly conducting the research.

Further Research

In the previous section, I have already discussed the primary form of future research for this project. The follow-up interviews for the Mosaic Atlas are important to the

project to evaluate the effectiveness of the recommendations I made after analyzing my data and for further developing the user experience of the Mosaic Atlas. In addition to more research about the Mosaic Atlas, I found numerous compelling topics for future research regarding working with communities and user experience through an anthropological lens. Future research questions about working with local communities include:

- How do communities understand their visibility, and how do people within these communities decide what is visible and what is not?
 - How do people define the boundaries of their communities?
- How do people develop and maintain relationships with organizations that seek to work within their communities?

Future research questions about user experience and the development of maps include:

- How do we define and compare use cases to the effects of a product or service?
- What forms of boundaries do we set when discussing neighborhoods and communities?
- How do we balance the needs and wants of primary users with that of other users that are affected by the product or service that is being developed?

Closing Remarks

User experience has a broad definition often boiled down to "how can we make this product better and more usable for the person in direct contact with it." My two most important takeaways from working on this project were the broadening of the definition

of user and the broadening of my view of what sorts of products could benefit from user experience research. These two concepts transform the basic simplified idea of what user experience is into a tool that helps the greater good. By understanding that user experience better develops a project such as the Mosaic Atlas, user experience researchers can intervene early in the development process to fix and alleviate problems.

Just as significant is the broadening of the definition of who a user is. It is important to change the idea of whom user experience researchers and designers do this work for. It transforms user experience into a field working for the greater good of people rather than specific direct users. Anthropologists can do this work well due to our study of human culture and behavior. It is my hope that user experience research continues to focus on this broader definition of the user.

WORKS CITED

- Blomberg, Jeanette, and Chuck Darrah. 2015. *An Anthropology of Services: Toward a Practice Approach to Designing Services*. San Rafael: Morgan Claypool Publishers. https://doi.org/10.1007/978-3-031-02209-8
- Cocq, Coppélie. 2013. "Anthropological Places, Digital Spaces, and Imaginary Scapes: Packaging a Digital Sámiland." *Folklore* 124 (1):1–14. https://doi.org/10.1080/0015587X.2012.753695.
- Cohen, Kris R. 2005. "Who We Talk About When We Talk About Users." *Conference Proceedings (Ethnographic Praxis in Industry Conference)* 2005(1):9–30. https://doi.org/10.1111/j.1559-8918.2005.tb00005.x.
- Cooper, Marianne. 2014. *Cut Adrift: Families in Insecure Times*. Berkeley: University of California Press. https://doi.org/10.1177/0891243215572260
- Dalstrom, Matthew, Abigail Hawley, Onsrud Katie, Zimmerman Kristine, and Manorama M. Kahre. 2022. "Using Maps to Promote Physical Activity in Rural Communities." *Practicing Anthropology* 44(2):21–26. https://doi.org/10.17730/0888-4552.44.2.21
- English-Lueck, J. A. 2017. *Cultures@Siliconvalley. 2nd ed.* Stanford: Stanford University Press. https://doi.org/10.1515/9781503602991
- 2011. "Prototyping Self in Silicon Valley: Deep Diversity as a Framework for Anthropological Inquiry." *Anthropological Theory* 11(1):89–106. doi:10.1177/1463499610397115.
- Evenson, Shelley, and Hugh Dubberly. 2010. "Designing for Service: Creating an Experience Advantage." *Introduction to Service Engineering*, 403–13. doi:10.1002/9780470569627.ch19.
- Faulkner, Susan, and Jay Melican. 2007. "Getting Noticed, Showing-Off, Being Overheard: Amateurs, Authors and Artists Inventing and Reinventing Themselves in Online Communities." *Conference Proceedings (Ethnographic Praxis in Industry Conference)* 2007(1): 51–65. https://doi.org/10.1111/j.1559-8918.2007.tb00062.x.
- Fortun, Kim, Mike Fortun, Erik Bigras, Tahereh Saheb, Brandon Costelloe-Kuehn, Jerome Crowder, Daniel Price, and Alison Kenner. 2014. "Experimental Ethnography Online: The Asthma Files." *Cultural Studies* 28(4):632–642. https://doi.org/10.1080/09502386.2014.888923.
- Hyland, Stanley E., and Linda A. Bennett. 2013. "Responding to Community Needs through Linking Academic and Practicing Anthropology: An Engaged Scholarly Framework." *Annals of Anthropological Practice* 37(1):34–56. doi:10.1111/napa.12016.

- Jordan. Brigitte, 2009. "Blurring Boundaries: The 'Real' and the 'Virtual' in Hybrid Spaces." *Human Organization* 68(2):181–193. https://doi.org/10.17730/humo.68.2.7x4406g270801284.
- Kelty, Christopher. 2005. "Geeks, Social Imaginaries, and Recursive Publics." *Cultural Anthropology* 20(2):185–214. https://doi.org/10.1525/can.2005.20.2.185.
- Youngblood, Michael, Benjamin Chesluk, and Nadeem Haidary. 2020. *Rethinking Users: The Design Guide to User Ecosystem Thinking*. BIS Publishers.
- Zebracki, Martin, and Dirk De Bekker. 2018. "Public Art for an Inclusive City: Producers and Publics on the Social Potentials and Problems of Flagship Vis-à-Vis Community Art." *City & Society* 30(1):14–44. doi:10.1111/ciso.12153.