

How can we Design Social Media to Better Respect the Boundaries of Third-Culture Users?

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Abstract

This honors thesis examines the ways in which the 21st century design of our social media platforms can disrespect social boundaries for its third-culture users. Third-culture users (TCUs) are people who are raised in a culture other than their parents' (Useem & Useem, 1967). Our platforms are currently designed to connect the world together, but not all users want to be connected. For some, such as TCUs, this connectedness can lead to context collapse resulting in high consequences. Through semi-structured interviews of nine TCUs, a design exploration with a research lab, and a follow-up focus group with participants from the interview, the social boundaries set up offline are investigated as they transfer online through social media. The interviews revealed four main themes including (1) connection and disconnection with cultural identity, (2) filtering, (3) social media mitigation, and (4) shared experiences online. The design exploration provided technological design solutions such as a new app, a recall window, and a way to block co-tagging. Lastly, the follow-up focus group offered insight into the technological design solutions and how well they worked for TCU's ongoing experiences and boundaries. This paper concludes by offering insight into three different design solutions that would reduce the harm brought to third-culture users when their boundaries are disrespected. These solutions are (1) adding small group features, (2) allowing users more control of their notifications, and (3) mimicking the values of third-culture user's offline communities.

Introduction

“Where are you from?” is a simple question in theory. If someone in the US were to answer, they would likely state their hometown, where they grew up, and the state in which they were born. For others, this can require some additional questions such as, “Do you mean where I grew up? Or where my family is from?”

Cultures around the world value their individual traditions, beliefs, and norms that make them unique. Within the United States, communities have held onto these values across the nation through various celebrations and festivals. The rise of social media has brought people together, regardless of cultural or geographical boundaries. Growing up in a multiracial family, I became interested in this topic of social media boundaries and how being a part of multiple cultures influenced one’s online identity.

Third-culture users (TCUs) are people who are raised in a culture other than their parents’ (Useem & Useem, 1967). They are particularly adept at building relationships with other cultures while not possessing a cultural identity of their own (Moore & Barker, 2012). I wanted to better understand what differences they experienced compared to mono-culture users (MCUs) and how they managed multiple different communities on different online platforms.

This research focuses on the way our current design of our social media platforms disrespects our social boundaries, specifically through the way our content is seen and shared. This study will investigate the interplay of TCUs and technology focusing on when we want to be connected and when we do not.

The study aims to answer the following four questions:

- (1) How do third-culture users navigate being connected to others?
- (2) How do these encounters impact their social lives?

(3) What social boundaries are our social media failing to disrespect?

(4) How can we design technology to better respect the boundaries of third-culture users?

The overall objective of this research was to suggest design solutions, so that our technology could better respect the boundaries TCUs, and all users, have created online. To answer these questions, my methodology included (1) in-depth semi-formal exploratory interviews with participants about their encounters with multiple audiences online, (2) a design exploration where a broader spectrum of social media users were able to take part in exploring technical design solutions, and (3) a focus group to engage previously interviewed participants with an opportunity to participate in evaluating the technical design solutions.

Social networking sites (SNSs) host a diverse range of people with roots from around the world. There are differences in the way that people who identify with different cultures, based on both national identity and gender, manage their communicative behaviors within SNSs (Rosen, Stefanone, & Lackaff, 2010). Being cognizant of how our social media's focus of connecting people together can be harmful is critical for people, specifically TCUs, who have higher or different consequences than their counterparts (Pollock & Van Reken, 2017). It is not to say that it is bad or wrong to connect everyone, but merely that not everyone wants to be connected online, similar to the ways in which people do not want to be connected to everyone offline.

Comprehending the positive and negative contexts behind people's offline social groups and the online consequences of those social groups meeting is an open question and one of the focuses of this project. The secondary focus of this project is to offer new guidelines of how to better design social media platforms to respect the boundaries already set by TCUs.

Related Work

In this thesis, I situate my empirical investigation within the context of existing work on third-culture kids (TCKs), impression management, and context collapse to articulate my findings in order to suggest technical design solutions that can better support TCU's varied experiences online.

The study of TCKs and technology draws on research from the sociology field in which the original concept of a third culture kid was termed. Current existing literature has described third-culture student's identities online (Wisniewski, Xu, Lipford, & Bello-Ogunu, 2015), their transition from a high school outside of the US to an American college (Weigel, 2010), and interpersonal sensitivity (Lyttle, Barker, & Cornwell, 2011).

In regard to social boundaries, previous work has focused on user's experiences through context collapse on SNSs (Marwick & Boyd, 2011) and the multicultural use of technology (Vitak, The Impact of Context Collapse and Privacy on Social Network Site Disclosures, 2012). While all of these works aid our awareness of how different users, specifically TCUs, manage their identities and relationships online, there is a gap of knowledge in TCUs and their mitigation of social boundaries both online and offline.

Third-Culture Users

The concept of a Third Culture Kid (TCK) was first introduced by Ruth Hill Useem and John Useem (Useem & Useem, 1967). A TCK is a person who has spent a significant part of their developmental years outside their parents' culture (Pollock & Van Reken, 2017). Elements from each of a TCK's cultures may be assimilated into their experiences, but a primary sense of belonging can stem from a TCK's relationship to others of similar background (Moore & Barker,

2012). TCKs live in two realities: being raised in a genuinely cross-cultural world and being raised in a highly mobile world. Yet TCKs actually live in different cultural worlds as they travel back and forth between their passport (parent's culture) and host cultures (secondary cultures) (Useem & Cottrell, 1996). This makes TCKs more apt to possess multiple cultural identities than a confused singular cultural identity (Moore & Barker, 2012). A key finding in Moore and Barker's research is how TCKs have integrated different elements from each culture, thus forming one multicultural identity to which they adhere consistently regardless of the country, context, and culture they are in (Moore & Barker, 2012).

This relationship with their multicultural identity may be exacerbated by social media, when a TCK's many connections are brought closer together. The spread of technology has made our SNSs readily accessible to a larger demographic of people allowing for cultures to be connected quicker than before. However, this connection may not always be good if these current systems remain ignorant of the different cultural norms that shape how TCKs migrate between and connect to multiple cultural groups.

Impression Management

A key concept in this research are the ways that people present themselves and manage other's impressions, which Goffman refers to as "impression management" (Goffman, 1959). Goffman presents the metaphor of a stage where people present themselves. Much like a theatre production, actors appear and work on both the front stage and the backstage. Goffman describes these performances the actor holds as an "activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers" (Goffman, 1959). These interpersonal interactions the actor has are

performances for others, where ‘others’ are the audience. The front consists of a setting, appearance, and manner. These are all pre-selected and are typically established by the time the actor assumes their role (Goffman, 1959). Meanwhile, the backstage can be anywhere and can even lead to another front stage (Hogan, 2010).

This front and backstage metaphor translates easily to online platforms. Our social media allows individuals to tweak their behavior selectively, whether it’s asking for a friend’s opinion on a photo before posting or choosing when and how to share certain posts. This identity management is self-conscious in situations of intense scrutiny, such as at a job interview, but can become habitual in relaxed social situations. In this study, the front stage involves continual adjustments for self-presentation and the audience and actor are all bound to the same space and time. Unlike an offline scenario, the notion of a backstage fails to capture the role of a third party in regulating who has access to information about an individual (Hogan, 2010).

In my research, I use the frontstage and backstage metaphor to focus on what TCUs were intending to present on stage to all of their audiences. Social media can mess with a TCU’s presentation by putting all of their different audiences in the same theatre. Similar to TCUs, MCUs typically have multiple audiences as well. However, TCUs not only have a multitude of different audience members, but a wide range of different cultural backgrounds to work with meaning there can be less overlap between audience members.

Offline Networks

Many people’s experiences are shaped vastly by their social status. Lyttle, Barker, and Cornwell’s research focused on third-culture individuals (TCIs), referring to both adults and children (Lyttle, Barker, & Cornwell, 2011). They completed a study and found that a TCI’s

interpersonal sensitivity, specifically their social and emotional sensitivity, is different than their mono-culture counterparts. While mono-culture individuals (MCIs) reported higher *emotional* sensitivity, TCIs were found to have significantly higher *social* sensitivity (Lyttle, Barker, & Cornwell, 2011). The main cause of their higher social sensitivity was TCI's intercultural exposure and adaption, which more often than not led to enhanced intercultural communication competence. For example, many emotions are culture-specific. Adjusting to unfamiliar social settings requires a reduction of uncertainty through careful emotional cue reading (Lyttle, Barker, & Cornwell, 2011). Meanwhile, the cause behind MCI's higher *emotional* sensitivity score was hypothesized to be due to the lack of intercultural experience (Lyttle, Barker, & Cornwell, 2011). This enhanced competence allows TCIs to better adapt to their different social environments that can assist them as they work with their mixture of their first two cultures.

Along the lines of TCK's identity, Weigel researched the transition TCKs experienced when entering their first year of college in the US after residing in another country in comparison to their peers. The qualitative themes that demonstrated a difference between the two groups were identity, relationships with peers, culture shock, support, and the concept of home (Weigel, 2010). A noteworthy factor to consider in these findings was that the majority of the students in the study were a part of the hidden immigrant cultural domain during their first semester of college. In other words, these students possessed the *physical* resemblance of their American peers but thought differently in terms of norms, values, and beliefs, typically following their home culture's norms, values, and beliefs. By sharing the physical resemblance of their American peers, some TCK's assimilated differently than those who portrayed fewer American cultural standards.

Weigel's work also reported a correlation between the expressed levels of differentness and the reported degree of difficulty students had assimilating. The majority of the participants reported that they did not fully identify with the American culture or felt different from their American peers in terms of values, beliefs, and norms (Weigel, 2010). Comprehending the ways in which TCU's identities are shaped by their first two cultures is integral for understanding how they identify when they're with their different communities, such as their American peers.

Context Collapse

Context collapse occurs when SNSs flatten multiple audiences into one (Marwick & Boyd, 2011). Participants must contend with groups of people they do not normally bring together making a verifiable, singular identity near impossible. Typically, self-presentation changes based on audience factors like friendship ties, status, and race. Additionally, this self-presentation leads people to emphasize or de-emphasize certain things responding to further feedback in a dynamic, recursive process (Marwick & Boyd, 2011).

Every day, we dress ourselves in a set of clothes that conveys something about our identity - what we do for a living, how we fit into the socio-economic class hierarchy, what our interests are, etc. This is identity production. (Vitak, The Impact of Context Collapse and Privacy on Social Network Site Disclosures, 2012)

Context collapse can be seen when a parent comments on a picture without any or the correct context. This picture could involve someone wearing certain clothes or show a person at

a specific location. For MCUs, their parents may be aware of the cultural context behind that photo, even if they believe it to be a poor image. However, a TCU's parent might be coming from a different culture with different norms, leading to a complex understanding of the context. Due to the larger difference in culture, this collapse can be greater in that the misunderstanding can lead to disapproval of the content ultimately leading to higher consequences.

Current Design Solutions

As a large player online, Facebook boasts a substantial number of users. In a 2015 study done by Wisniewski, Xu, Lipford, and Bello-Ogunu, it was acknowledged that integrating more interactive features similar to tagging could increase a user's frequency of Facebook and thus create more additional attachment to the site (Wisniewski, Xu, Lipford, & Bello-Ogunu, 2015).

A further solution offered encouraged designers to find a way to balance promoting engagement with friends and protecting user privacy. While Facebook users were found to have a fairly high level of concern for privacy, that didn't stop them from using the site almost daily (Wisniewski, Xu, Lipford, & Bello-Ogunu, 2015).

Furthermore, Marwick and Boyd's research showed that managing a networked audience required monitoring and responding to feedback, watching what others were doing on the network, and interpreting other followers' interests. Thus, the network was a collaborator in the identity and content of the speaker (Marwick & Boyd, 2011). Establishing what is currently suggested is necessary to explore how these (default) solutions are still allowing for context collapse to occur for users. This also demonstrates what particular part of the design could be causing the most difficulty for TCUs who are not wanting to be connected.

Study Design

The design of this study involved three phases: interviews, a design exploration, and a focus group. I began with interviews in order to obtain individual accounts of the various ways that our social media has harmed people by aiming to connect them to too many people at once. Following the interviews, I conducted a design exploration in collaboration with fellow researchers at the University of Colorado Boulder. The researchers were given personas and scenarios and asked to brainstorm technological design solutions to help mitigate those scenarios. Finally, I chose to conduct a focus group to bring the ideas from the design exploration back to the target audience. The focus group allowed participants to compare experiences and discuss possible solutions in a group setting.

In what follows, I report on each study in turn. For each, I provide detailed information on the objectives, methods, and solutions/analysis. After reporting on each study, I discuss the collective insights from across the three methods.

Interviews

The purpose of these interviews was to gather rich personal experiences and perspectives of participants while maintaining the flexibility to adjust questioning to account for context. These interviews also served a purpose in offering insight into TCU's communities both offline and online. Ultimately, the interviews provided an in-depth understanding of people's offline boundaries which were later found online. This knowledge of offline boundaries was vital to inferring how our SNSs were currently disrespecting social boundaries.

Methods

A total of nine interviews were conducted, recorded, and transcribed with the average interview lasting 45 minutes long. The participants were recruited via a text asking any TCU with social media if they'd be willing to interview about their experiences and relationships with technology- more specifically their relationship with social media when it connected them when they didn't want to be connected. The interviewees were primarily South Asian and Middle Eastern college students from the University of Colorado Boulder.

One interviewee identified as male, six identified as females, and two identified as non-binary. Their ages ranged from 19-22. At the end of the interview, participants were asked to share their email if they wanted a follow-up of this research and if the researchers could contact them again to participate in a follow-up focus group.

For these interviews, I focused on exploring what community meant to TCUs, their offline social network, and how these groups transferred into online communities. I then had interviewees share experiences of times they had their boundaries being crossed online. I began each interview by introducing myself and the study before providing a study information sheet (Appendix A). From there, I obtained verbal consent from each participant to record and transcribe the interview. All of the interviews were conducted in person at a time and location of the interviewee's preference. Private rooms were reserved in order to ensure clarity of the interviews and for transcribing purposes. Two interviews were taken in more public areas due to the interviewee's preferences. I received verbal consent from each participant to take notes on a laptop while having the skeleton of questions up to ensure that all crucial questions were asked. The interviews were recorded via an audio phone recorder. The skeleton questions are attached in Appendix C.

After asking demographic questions, I separated the interview into two sections: offline and online. Within each section, I started by asking the participant about their social network in order to understand what communities they were a part of. I then asked what “being a part of” meant to them as a way to gather their level of involvement within each community. Because each participant volunteered their time to tell their individual stories, it was anticipated that there wouldn’t be many uncomfortable reactions. The interviewee was informed beforehand that the interview was a lay discussion and they could choose to not answer a question or leave if the interview became too overwhelming.

The offline section offered the participants a chance to dive into their involvement with their culture and identity living in the US. The second half of the interview began with the same question, what are some of the connections you have, to prompt the participants to consider who they were networked with online. Originally, the study was designed to only focus on Facebook connections, but all of the participants naturally discussed their more used platforms, such as Instagram and Twitter. This section also offered another chance for participants to discuss their connectedness with their culture while online. Unlike the offline section, I focused more questions on the unwanted connections they had with people they did not care to be connected to, even if they still talked to them. To wrap up the interview, I asked the interviewees if they had any further questions or anything they wanted to add. I thanked them for their time and asked if they were willing to follow up with a secondary focus group interview.

Once the interviewee left the room, I stayed back to conduct a five-minute post-interview write-up to reflect on what worked well, what to improve for the next interview, and any key points the participant had mentioned. Each interview was transcribed using temi.com, an online speech recognition software used to transcribe speech to text.

Findings and Analysis

I conducted a thematic analysis by reading through all of the transcripts and focused on examining themes or patterns across all of the interviews (Nowell, Norris, White, & Moules, 2017). Using Microsoft Office tools, I coded the transcripts with Microsoft Word's comment feature to capture general themes or initial ideas that stuck out. After the coding process, I categorized the codes into five main themes: filtering, disconnect, shared experiences, dealing with culture, and online connectedness. I used two quotes to back up each theme, explained the circumstances, and wrote how each quote was an example of the theme. As the interviews became more catered, I found it difficult to stick to this method and changed to an affinity diagramming approach.

Affinity diagramming is a brainstorming tool that allows one to organize a large number of ideas into their natural relationships and is the organized output from a brainstorm (ASQ.org, 2020). The affinity diagramming approach involved writing out each code on a separate sticky note in order to organize and re-organize the codes in different ways. I was able to better cluster the sticky notes to identify patterns between each of the participant's experiences and create four new themes: connection and disconnection with cultural identity, filtering, social media mitigation, and shared experiences online. The affinity diagram can be found in Appendix F.

These four themes captured the mixed audiences online and offline that the interviewees were describing along with their own salient identity within those groups. Two of the smaller themes I created were stakes and audience mixture. I originally had these two together but realized that they were two separate ideas. The stakes were the end result of either someone not filtering enough or context collapse occurring. Audience mixture was sometimes inevitable and

at times welcome, based on who was mixing with who. Because audience mixture had both positive and negative impacts while stakes did not, I chose to keep those as two separate ideas.

Connection and Disconnection (with Cultural Identity)

A cultural identity formation pertains to people who form part of a majority culture but who still have exposure to other cultures as well (Jensen, Arnett, & McKenzie, 2011). My theme of connection and disconnection describes the ways in which TCUs found themselves connected or disconnected to their many cultures offline.

It is of significance to acknowledge what makes a TCU's offline community different than a MCU's offline community. When asked about the different people in their lives, the main people that came up were their nuclear family, their extended family, and different groups and communities of people they socialized with at school through academics and extracurricular activities. Within these people, TCUs offered a key distinction they experienced. Their nuclear families were all a part of a larger local community, a *home community*. This home community was made up of other families who had immigrated from the same country and sometimes even from the same city. To add, many of these home communities were networked with similar home communities in other states, expanding into a larger national community within the US. These home communities became a fundamental influence within all of the interviews as it played a large part in their offline identity.

These home communities that TCUs come from are often very tight-knit as they're made of multiple families who have all immigrated from the same location abroad and therefore share many of the same cultural values. P02 shares their experience with their own Tamilian community:

Within our TAMILIAN community, we're all the same. So, we come from the same background and we have parents with similar values, like similar cultural values... I've grown up with probably a lot of the same people from first grade... I used to have singing, dance classes, all of those classes, just like the typical Indian thing. And then school...I've went with the same people from middle school all the way up until high school.

Furthermore, because many of these families immigrated, they also had to assimilate into the more dominant culture, while upholding a lot of their own cultural values.

Coming from a family of immigrants who are trying to assimilate and stuff, I have to keep up with them...my parents moved when they were in their twenties and so their assimilation, like their process of doing that also affected me...But when I came, the assimilation, it was more like learning what my family did differently because of our culture and what family means in India and how it's a little more, um, strict and kind of harsh than it is in those other places. (P04)

This was not always the case, as some participants, such as P03, explained how they didn't assimilate at the same time as their parents and thus understood the disconnect of experiences differently.

I think that's just part of living in America and going to school in America. And so for them (the parents) they didn't have that growing up. Like all of their friends were composed of people who were Indian. And so for me to say, Oh yeah, like I have African friends, I have Hispanic friends, I have other Asian friends who aren't from India. That's a little hard for them to grasp (P03).

The shared or understood experience of assimilating into another culture also connects not only individual families but these communities closer together. A secondary trait that comes with assimilation is the maintenance of your own culture. For many TCUs, these communities are the backbone for not only themselves, but for their parents as well. P04 talked about their involvement with different parts of the community and where connection occurred:

We're not very religious, but we do involve ourselves in the religious community kind of only for the community. So, I'll learn about the food and the traditions and how I'm supposed to use my right hand instead of my left hand and religious things. And they don't really affect me, but it's good to know about because it's where I came from. And it's what my parents grew up with, so to be more connected. I'm more connected to my parents through that culture. And more connected to the culture through my parents.

Through these shared religious and cultural events, TCUs often find that they are already a part of a tight-knit community solely based on their home community offering them knowledge about their own heritage.

The attention and care that is put into knowing one's own culture is valuable and can be maintained in different ways through TCUs. One instance is through cousins residing in both a home country and in the US. Any TCU with a cousin of a similar age no longer endures the potential generational gap of misunderstanding of a culture, but sometimes a regional gap instead.

One example comes from participant P02 who had a picture of themselves with a bunch of boys that ended up on social media. P02 talked about getting messages from their cousins who saw the photo and questioned why they were standing with so many boys in that picture. At first,

they were frustrated that their cousins were asking so many questions about the picture, but it came down to the awareness that *“they [the cousins] grew up that way. Like that's the way they grow up there [India]. So, I can't really judge them for it”* (P02). P02's cousins who are of a similar age grew up in India. While P02 isn't experiencing any generational gap issues with these cousins, they are experiencing some disconnect between what is deemed appropriate and what is not. While they have similar upbringings in some ways, P02 is aware that those cousins are experiencing their Indian culture in a vastly different way than they are in the United States, and thus feels they can't judge their cousins for asking particular questions about the picture. Even participant's cousins who are also TCKs living in the US don't share all of the same experiences:

A lot of my cousins grew up in New Jersey, California, Texas and there's a lot more Indians in those areas. So, I feel like I definitely have more of a confusion about my Indian American identity and I feel like they, because they grew up around other Indian Americans, they're more content with their whole identity.
(P05)

Being conscious of the depth of these cultural, tight-knit roots even when miles apart further proves where there is closeness in these communities. To elaborate further, these extended family members are a gateway into other versions of TCU's own culture, and sometimes their identity, too.

Being actively involved in their home community while attending a school outside of that town does not seem to be required by any parents or family nor is it looked down upon. However, many of the TCUs continued to maintain their culture through a variety of clubs and activities, including cultural student associations and numerous cultural events. Eight of the nine participants were attending the university from in-state. I predicted that these participants could

be coming into school carrying the same connections of people from their home community. Yet for TCUs who aren't as active in their communities back at home, they are still considered a part of it by other members of the community and their family, regardless of their involvement. One of the participants, P08 who isn't as involved with their community while they're at school shared the way in which they specifically are still known but not connected:

I don't always go to that stuff...It's been really sad. After the last Diwali thing, I cried. I was like... that was terrible... it felt bad because I haven't been able to feel connected to many of these people and I'm like I could go to that event, but it just feels so hollow cause I'm not connected to these people anymore.

P08 who is not out yet to their family and home community chose not to stay connected to the community at school due to the closeness that those people shared with their home community.

While at school, many of the participants were able to explore new parts of their culture. P04 was able to learn more about their own culture through others in different student groups who were connected in different ways to the same or similar cultures:

Yeah, it's a good way of being connected to people who are more connected to that part of their culture than I am. So, they'll bring up little pop culture references and I'll learn about that through them. (P04)

P09 also talked about the learning curve they experienced being around other students:

Even though I did have a home Indian group, I didn't feel like I was very heavily into the culture and I knew a lot of things and so jumping into the [Cultural Student Association], I feel like there was a learning curve for me to be like, what information do I need to know? How can I relate to others and actively be a part of this association? (P09)

At the same time, other clubs and activities offered participants an option to be more a part of their American side. P07 discusses their use of academics to ground them to their American culture. *“I explored my American culture more through things that interested me academically, so things like STEM groups, medical association, stuff like that”* (P07). As P04 simply states, *“I think the American side was a lot easier to be connected to because I’m like right here. It’s what I am around.”* Regardless of whether a participant was trying to connect to the American culture or their own, the sense of belonging ebbed and flowed:

But there’s definitely, I guess, imposter syndrome with some things. Like I’m an officer for [cultural student association] and sometimes I’m like, am I supposed to be doing this? And I’m the treasurer for [academic science club] and I’m not planning to do anything in [that field]. Like I’m not pursuing that as a career. So, there are definitely aspects about each club that I’m, I feel like I do belong, and I don’t belong at the same time. (P05)

Imposter syndrome can happen to anyone, not just TCUs. For TCUs, having more involvement with their culture at school along with their ties to a tight-knit home community sometimes pushes their identity back to their home community.

Yeah, I feel like it’s [joining cultural student associations] definitely honestly changed my outlook and my identity of who I am. I feel like it’s made me more in touch with my culture and made me more in touch with my parents, too about what I can ask them and what I can talk about. Because I think the great thing about being in these groups is that you get to talk to so many different people. And you got to learn from them, so I got to also go back and ask my parents things and things like that. (P09)

Something that MCUs do not experience is the “-American” attached at the end of another culture:

Yeah, I think it, it's really weird. Um, something I notice here as a big difference or just like a feeling is a different feeling of being Arab-American and being just Arab...International students that come here, they don't consider a lot of Arab-Americans, you know, full Arab because their concept of what is Arab is only like those like kind of wealthier Arab countries where they're from. (P06)

Third-culture individuals all share a hyphen that splits where they are from and where they currently reside. Despite the confusion participants shared about their mixed identity, this mixture has its perks. P03 discussed the ways in which culture for them was thought to be moldable:

I think honestly, culture is what you make of it...I think like I've kind of like tried to craft it to my own personality. There's like certain aspects that I'm like, oh yes, this makes sense with what I do with my life. So, I'm going to incorporate this into my life. And then there are other things that I'm like, well this doesn't make sense to me. Like, I don't, I don't understand how or why you would justify this. I'm not, that's not going to be a part of my life.

On top of that, many of the participants are aware of their representation between these cultures.

P03 continues:

I have so many different pieces to my own personality that overlap in that way and all my friends are accepting of all the different parts of me...But I feel like I kind of act as this bridge between the two different communities.

P07's comments summarize what I heard from every participant, *"I owe it to kind of keep those [cultures] a part of my identity just because they all hold value in a different way. And they've all made me who I am today."*

As TCUs mix and mold their third culture, their communities they are a part of, based on interest and location, along with the pre-built, cultural home communities creates a variety of people for TCUs to interact with on a daily basis.

All of these communities come into play when discussing one's identity as they all hold different values for each TCU. When asked whether these clusters of people were kept separate, the majority of them stated that there was overlap, but there were definite times when certain people, such as parents and certain friends would not meet. Because of the rooted cultural communities, participants found it challenging to not categorize some of their groups by race. P07 offers a common example of what happens when their groups were intentionally mixed:

Not purposefully [trying to separate them], but I guess more out of consideration for all the groups in general. I guess the best example is when my birthday comes around and it's like, okay, birthday, dinner time. That's when all of my groups kind of start coming together. And it's always really interesting to see that interaction because a lot of them aren't familiar with each other, but they're all like, you know, they're having friendly conversation, but you can tell that there's kind of a missing connection. And because I have that understanding with each of those different groups, it's really easy for me to get along with all of them. But because, you know, like if my white friends, for example, hang out with my Arab friends, there's sometimes like a little bit of a language barrier just because their accents tend to be a little stronger. Um, or just like a sense of connection of like

what to talk about. And like in general, like do we talk about school, do we talk about culture? Like there's just that missing aspect of a common thread to talk like, of, of like a topic to talk to them.

P04 brings up a similar point:

I don't actively try to keep them separate, but I wouldn't know where to start if I were to try to combine them. I do have friends who come to dance shows and stuff, but that's kind of for me, and not for them to learn about the culture. So yes, they're separate, and I would not know how to combine them. So, I guess I like keeping them separate in a sense.

At times, this separation can stem from a desire to keep them separate, but other times, it stems from a need. For P08, who hasn't come out in all of their communities, there's a real fear of being outed to their family, and thus their community:

I want to keep them separate for safety, like staying in the closet in certain spaces and around certain people who are connected to my family... But I think the greatest, like even worse than me being gay to my parents would be my parents finding out that I'm gay from someone else. So, it ends up being that I don't really hang out with a lot of Indian people very often, but I still know them, and I'm still connected to that community. Um, but I definitely don't want those communities meeting in person.

While some TCU's experience high consequences of mixing groups, this isn't always the case:

I probably would introduce more of my family to the cultural groups. Like as in more of our [cultural dance] community and [cultural student association], um,

just because it is an easier influence and my parents can directly relate to everyone who is in it. (P09)

In this scenario, P09 describes how a common thread, such as a lack of a cultural barrier makes the transition much easier for them to bring friends home to introduce to their family. While social media links people around the world regardless of geographical boundaries, these mixtures of communities are sometimes inevitable. P05 shares the ways in which their community isn't necessarily a Venn diagram but an overlapping of concentric circles:

Yeah, I guess I do kind of keep them [different groups] separate a little bit. But like, the [cultural student association] and [cultural dance team] kind of merge. Like, I know people who are in both groups. Right? So those ones I don't try to keep separate cause they're kind of part of a bigger community. (P05)

The ultimate emotion expressed when some of these groups are merged is confusion.

Yeah, there's definitely like a huge culture shock when you do combine different groups together just because like your identity in these groups is so different and how you show yourself and like how you talk is different and sometimes like merging that it's like you know, this like converging force of like who am I around these people? Like how do they know me and what information do they also know and can contribute to that group aspect. (P09)

TCUs balance multiple audiences offline, which include their home community and whatever other communities they choose to be a part of, whether cultural, academic, or something entirely different. The ties to their home community can influence the interests TCUs possess. Offline, the mixture of these different cultural audiences, while not always bad, can be daunting and confusing to navigate, seeing as there is typically no

good starting point unless there is a form of cultural knowledge or background for people to relate to. In the next theme, I address TCU's proactiveness for times when these different audiences do end up mixing online.

Filtering

The second theme aimed to look at how a user's social identity was filtered online due to their connection with a variety of people. This theme describes the ways TCU's were proactively managing their content online. As P08 describes it, "*Yeah, like my Facebook, I post pretty kosher stuff on there. Like, I feel like I'm friends with former teachers, too.*" Multiple participants, such as P07, described similar standing:

Yeah, so I think for Facebook specifically, I have a lot of family... I'm posting things that I feel more comfortable with, um, that aren't necessarily as conservative... On Facebook, everything's very conservative. Like, my hands are covered, my legs are covered, I'm saying all the good things about me. So, on Facebook, I'm impressive me....

These users describe who they're connected to on Facebook, specifically- their friends and family, but also other people like former teachers or high school friends. Like many users, TCUs are very aware of the interconnectedness and overlap occurring on these platforms. Because of the family and home community connection, TCUs are very proactive and mindful in ensuring that everything they post is impressive or deemed appropriate by their parents and/or home culture. As P02 describes it, "*but it really sucks...you have to be so mindful of people because we do live in such a diverse world where you have to be mindful of everyone's feelings. And being mindful all the time is exhausting.*"

In contrast, most people seem to balance their content online due to societal norms. For example, the divide between social life and work isn't uncommon. P06 shared:

None of my siblings are going to post pictures of them with alcohol or going out on social media because that's generally not good for your self-image and potential employment opportunities or future things like that. (P06)

However, unlike MCUs, P07 described the higher stakes that TCUs risk:

But you know, like the way that gossip spreads is the entire family knows by the end of the day, the whole family knows. And by then your reputation is kind of on the line because they're like, pardon my language, they're shit-talking you.

For many TCUs, their reputation within their entire extended family is on the line, which can make things difficult if content were to unknowingly pass boundaries. On top of that, TCU's societal norms turn into multiple cultural societal norms with varying degrees of appropriateness.

I feel like everyone goes on Instagram, like to judge people a little bit. Um, but yeah, I would say you know, just cause there's like the generational gap you know, parents are a little bit more conservative and they have a different idea of what should be shared and what shouldn't. (P04)

Having multiple cultural norms means there are varying degrees of formalities that can often be unknown to the other culture. P07 shares their experience of wearing typical beach clothing, such as shorts, at a beach and getting tagged in a friend's photo:

So, there is an instance where someone tagged me in a picture and I was wearing shorts and that just blew over and that person called my mom and was like, do you know your daughter's wearing indecent clothes?...after that, you know, you learn to know what to

post and what not to post or what to kind of hide and what other people might see if you're tagged in something.

For many TCUs, their reputation within their entire extended family is on the line, which can make things difficult if content were to unknowingly pass boundaries. Furthermore, for these cultures, residing in your non-native country means you become the default representative. For TCUs living in the United States, the majority of the population are white Americans. TCUs therefore automatically get put into a role as an ambassador for their non-American first culture. As P06 explains within the context of their Muslim culture:

So, I think in general within Muslim culture...if someone wears the hijab and she posts something risqué on social media, people would talk about it like, oh, you know, she's like Hijabi. She's visibly Muslim, so she's representing the face, the religion. So, she shouldn't be posting things that are as risqué.

This additional task of becoming the representative of your culture and community can leave one with a sense of pride but can also cause damage if it's represented in the wrong way.

Alongside the higher stakes coming from within the family and community, TCUs must also consider the consequences at play. P02 shares the example of getting taken out of school, “*Big [consequences] as in like there's always that option where they go back to their traditional values and if they see that I'm partying too much, they're gonna make me transfer or something crazy like that,*” while P05 described what a relationship could look like:

I had a cousin who had been dating someone for four years and no one knew about it until finally on Insta or on Facebook she posted her engagement photos. Um, and so that was a really interesting thing because to my parent's generation and her parents, that was the right thing to do because it was like, you know, no

one should know about a relationship until you get engaged. But then she's also I would say like five, six years older than me. And so, for my generation it was like, why are you hiding your boyfriend?

Where MCUs are filtering their content for their singular culture, TCUs must be mindful and always take into consideration their other culture's norms in order to avoid higher consequences such as risking their reputation to their family, home community and extended family overseas. On top of this, TCUs involuntarily become ambassadors to their country, which leads to further judgement if done wrong. Balancing all of the different cultural values can prove difficult, especially when the home community's values are stricter to adhere to than the residing culture. In this next theme, I discuss how TCUs manage content that has already crossed social boundaries.

Social Media Mitigation

The theme, social media mitigation, describes how TCUs must mitigate content online when the context collapses in ways they weren't expecting. In contrast to filtering, which focuses on the *proactive* choices TCUs make when sharing information online, the mitigation describes the practices TCUs engage in when content crosses boundaries even after the filtering process. For example, following up P07's experience with their family member seeing the picture of them in shorts:

Things that don't seem like a big deal might affect someone else. Like that person tagged me in that picture because I was in it and to that person, me wearing shorts is nothing to them...to most people it isn't. And no one bothered about it, but that one person saw it and it was a family member and it was like, you've,

you've done some dishonor here...I had to untag myself. I had to message that aunt and be like, I was at the beach, you know, I can't wear pants at the beach. It doesn't work and kind of explained myself, which is ridiculous...So now I approve my pictures, but this was when Facebook would tag you in things and it was automatically tagged. So yeah, unnecessarily difficult.

A current solution that MCUs typically use is unfriending. For anyone who does not want to be connected with someone outside of their family or home community, the most popular current solution is to unfriend them, block them, or leave them hanging in the friend request zone.

I see them in person every day, so I would feel my conversations with them in person would be friendly and cordial. So, I'd feel uncomfortable blocking them even if I felt like, hey, I'm not really getting anything from this friendship and you're not getting anything either. So, I'm just gonna leave them out there until they like a photo of me. And... then I decide. (P04)

These current solutions are not exactly the strongest for getting anyone out of sticky situations. However, the majority of the participants chose to keep their social media, despite the overlapping audiences. As P05 puts it:

It's interesting cause it's like you're not [offline] friends with them anymore. You're not like hanging out with them anymore. Um, but you're also kind of a little bit curious about their life.

When it comes to their home community and family however, there's a tension between TCUs and their family online. If one were to try to unfriend one relative, your whole family would

know, and you'd be pestered and pressured enough to re-friend them. When asked if they could remove a family member online, multiple participant's responses followed these lines:

Like to them Facebook is something so sacred and they use it as such a big time pass that not being active on Facebook isn't really an option. Or like at least not letting them or not accepting their friend requests is not an option. (P07)

The content that is typically passed along boundaries are tagged photos or posts. To work around already uploaded content being seen by family members, the majority of participants are quick to untag themselves and verbally ask the creator to take it down. P02 who was out after a graduation party was tagged in a picture of them and their friends late at night. *"Like I know I was only in the back but like I still got tagged and I said at least a) untag me or b) like just take it off and they're... It was a close friend, so she took it off immediately."* (P02)

A final tool of social media mitigation are fake Instagram accounts, otherwise known as Finstas. These come in handy for TCUs who want to post certain content but only for close friends.

I try to like maintain people who I'm closer with on my Finsta or just people. I'm like, much more, I would say I'm much more outspoken on my Finsta and then also I'm much more private in terms of like who can see that stuff...on my Finsta, I'm more comfortable speaking about my minority identity. (P06)

For P06, their Finsta is used for very close friends in which they can be more outspoken without reaping the consequences. These friends involved in a Finsta are not only close but can be very trusted to not share the content in specific scenarios or without permission.

A task that TCUs most also complete to mitigate context collapse is regaining trust from their family and home community. As mentioned in theme one, the connection most TCUs have

with their home community is very close, partly due to the close-knit addition, and therefore it's a strong connection that TCUs typically want to maintain. In the final theme, I address the ways that TCUs share their experiences living between two cultures.

Shared Experiences Online

The final theme, shared experiences online, describes how TCUs manage their shared experiences online and offline. Online, TCUs have found and fostered their own digital communities to share about their experiences. P09 mentions the use of a Facebook group called, "The Little Brown Dairy" which allows them to navigate some traditional practices while living in the US.

There is a group called the Little Brown Dairy, which is for I guess just like for Brown women within the United States. And a lot of these people didn't grow up in South Asia, they grew up in the United States. And so, they're kind of trying to navigate that. And I feel it connected me a little more because a lot of people struggle with like, oh like how do I make this dish? Or like how do I drape a sari? Or how do I properly talk to like aunties and uncles about this sort of thing or like navigating the dating world while being Brown.

Two other commonly mentioned pages were Subtle Curry Traits and Subtle Asian Traits. Both are online communities that celebrate and connect Asians (or more South Asians in Subtle Curry Traits) in a humorous manner.

Yeah, so it's (Subtle Curry Traits) basically just like a group on Facebook where people post memes and gifs about just funny Indian jokes. I think it's more like commentary on the Indian- American experience. And I think it's really cool

cause I think social media is very much like, here I am and I'm so perfect and whatever. And I think it's very like self-centered and things like Subtle Curry Traits. It's kind of like this like one meme and a million people relate to that one meme and it's kind of more like a community. (P05)

As P05 describes it, these pages are run by and curated by other users and have evolved into spaces where people can come to collectively enjoy about and learn about other similar experiences people have shared. For some, like P07, they've even been able to learn more about a different South Asian culture that their partner is a part of.

Yeah, I think it's (the page) fun. And also, kind of seeing, because I'm not Persian so like kind of seeing Persian memes is like for me it's interesting cause I'll just be like, Oh okay. Like this is a specific dish that they really like. Or like there's this thing called Tahdig and it's like, for me it's burnt rice. I think it's awful. And it's something they crave and there's so many memes about it like 'when your mom makes Tahdig.' I'm like, when your mom makes burnt rice, I can't connect to it because I didn't have the upbringing where when my mom made burnt rice and I got excited. Like it was just not something that was a part of my upbringing. But so many people like that and they'll like it, they'll comment on it, they'll think it's funny and I'm like, I don't get it. So, it's specifically curated for a Persian person to understand that and relate to it. (P07)

These large online groups are valuable in encouraging TCUs to broaden their own insight of their home culture and more deeply connect with it by relating to more people. Along the way, they gain the privilege of learning about similar upbringings from people who, like their cousins, are experiencing their culture in a slightly different way.

Offline, many TCUs turn to other TCUs to share dissonances between their home culture and their American culture. P03 shares their frustrations with another friend who is also a TCU:

Like someone I share my stories with, like for example, Meera, like one day my parents didn't let me go out and I just was really frustrated. Like sometimes I just wish I wasn't so restricted. I told her I couldn't wait to go to college because I'll have all the freedom. And we both have very similar, like our parents were really great friends so they do have very similar values. So, it's like sometimes I wish I didn't have those cultural barriers because I look at other people like, oh they can do this, and they can dress like this, they can do this, they can have fun. Or it's like I'm stuck at home doing this. (*pseudonym)*

Moreover, P08 describes the boundaries that TCUs already know, which makes it easier to filter offline, and thus prevent mitigation in the first place. In their scenario, not all communities P08 is a part of are aware that they are out.

I think people have a real thing of like, oh this is an Indian person. They might not be able to be out to their parents. I think that's like a thing that people know...I feel like it's like an everyone thing... because people ask me like, oh, do your parents know? It's not an assumed thing that my parents do know.

In stories like these, having a one-on-one conversation is purposeful due to the number of specifics or details the story possesses. Whether these specifics or details are what make up the story or just the social cues that are necessary to tell the story, smaller groups were always much better in supporting such experiences.

Based on these interviews, I was able to better grasp the communities that TCUs were connected to offline, how the intermingling of those different communities influenced their lives,

and what social boundaries were being disrespected in the act. These themes also reveal possible implications for how to design better SNS platforms, leading to the following two studies.

Design Exploration

The experiences from the interviews explored where the boundaries were being crossed, which allowed me to better acknowledge where our current designs were allowing this intermingling to happen and how to fix that so TCUs could do less mitigation. I chose to complete a design exploration in order to ideate and design technological solutions to combat scenarios specific to TCUs. I utilized a journey and empathy map tool to identify certain places within the scenarios to focus on. Following the maps, I asked How Might We (HMW) questions to brainstorm possible solutions to those places.

Methods

The design exploration consisted of seven researchers who were not TCUs but could offer their strong experiences in design-based research focused on identity. Of the seven researchers, five were graduate students and two were undergraduates in which two were people of color and the remaining were of European descent. There were four females and three males.

Prior to holding this exploration, I created three different personas and scenarios showcasing the various experiences TCUs had while interacting with mixed audiences on social media. The personas were created by pulling pieces from the interviews that were most common. For example, of the nine interviews, four participants were a part of a cultural student association, so I incorporated this smaller background detail in order to build up the persona's background and differentiate them from MCUs. The scenarios were also created by mixing different experiences

from the interviews. The persona details were included in order to fine tune the frame, so researchers could better comprehend the persona and *why* it was a big deal that this scenario happened. For example, clothing was brought up in six of the interviews where the interviewees talked about their experience with different clothing standards influencing what could be posted online. The personas and scenarios were as followed:

Tanvi

Persona: Tanvi is a 20-year-old college student in Colorado studying neuroscience. She grew up in Denver with her parents and younger sister, but her family is originally from India and she has lots of family still there, which she visits on occasion. She is involved in multiple cultural groups at school, such as the Indian Student Association (ISA) and the South Asian Student Association (SASA) as a way to stay connected to her heritage and to hang out with those friends. A few of her cousins live in the states as well, and she is very close to them.

Tanvi has a boyfriend that she met her first year in college, who is not Indian. They've been dating for 2.5 years. People at school know about them, and her younger sibling knows, but her parents and her extended family are a bit more conservative and dating before marriage isn't typical or common. Because of this, Tanvi has never posted anything about her boyfriend online. She has told her boyfriend beforehand about her family, which he understands, so they keep their relationship very private. When they are out with friends, they are sure to only have pictures in groups of people as not to raise suspicion.

Scenario: One day she and a bunch of friends go out to a midnight premiere of a new Indian movie. Her parents are aware of her whereabouts and know she'll be home late. The group takes a picture to commemorate their experience outside of the theatre. One of her friends decides to

upload it to her Instagram and Facebook and tags everyone so she can share it with her friends. A couple of Tanvi's cousins see the picture and send it in their cousin group chat. They recognize all but one guy in the picture and begin drilling Tanvi about him. Tanvi is aware that exposure of her dating can have serious consequences. She also knows that because she is dating a non-Indian person, she assumes the risk of being kicked out of the family.

Meera

Persona: Meera is an 18-year-old college student. Her family is from Bangladesh and is religious and fairly conservative. Growing up, she attended temple, was involved with her community through helping organize Hindu celebrations, like Diwali and Holi, and completed her Bharatanatyam Arangetram, a formal ceremony and performance after years of training with her guru (teacher).

She loves keeping up with people on social media, especially those from her Indian community back at home and her extended family. She knows her extended family is a bit more conservative, so she is sure to make sure everything they see shows her more conservative side, too. She always makes sure she is wearing long pants and appropriate tops. Anything she wants to post to just her friends goes onto her Instagram stories, and even then, it's through Instagram's close friend's feature.

Scenario: Freshman Meera decides to go to a beach-themed party hosted by one of the sororities on campus, complete with a pool and DJ. She goes with Marie, a girl she just met from her dorm. The two dress in shorts and swimsuit tops. At the last minute, Meera grabs a t-shirt to put on over her top so she doesn't have to walk to the house in her swimsuit. Once they are at the beach party, Meera and her friend run into some other dorm friends they know and start taking

pictures. At this point, there are more people and it's early in the afternoon, so the sun is beating down on them. Because of this, people start jumping into the pool and so does Meera.

As the party goes on, more pictures are taken, and more friends are made. By the end of the party, Meera has become friends with all of these new people on both Facebook & Instagram and goes home to nap and shower.

Later that night while eating dinner, Meera checks her phone only to realize she has been tagged in multiple pictures of her in her shorts & swimsuit. Meera stops eating and races to untag and delete the photos. She quickly texts Marie to see if she can take down the picture of them and also asks Marie to help relay the message to the people they just met.

Ayush

Persona: Ayush is a 22-year-old college student attending school in-state. His family is from India, but he lives in the US with his parents. In high school, Ayush was very involved with this home community and likes to keep in touch with his family back in India. When coming into college, Ayush found that many other kids from his home community would also be joining him. Like most other college students, he aims to do well in school, is involved in some clubs and enjoys sleeping in.

At the beginning of college, Ayush found a lot of academic clubs to join and also came out his freshman year. However, that decision was kept in a certain circle, as Ayush wasn't ready to come out to his parents or family yet. Because of this, he chose not to stay close to his hometown friends/ community as he knew too many of them were close to his parents.

Online, Ayush ensures that people know very little about his identity. He keeps a highly academic-focused profile and only posts pictures about his school work.

Scenario: Ayush follows a lot of nonbinary people on Instagram and joined communities that allow people to talk about their experiences. However, he is still not out to his parents or his extended family. He is friends with his family on Facebook because they like to see what he's up to. Because of this, he can't post anything about his identity and he must be careful about what groups he follows and friends he has. Anything that shows that he is a part of the LGBTQ community could have dire consequences.

Ayush and his partner attend one of these LGBT community events that they find very interesting and valuable. This is a space where he feels like he belongs and is comfortable expressing himself. This is the perfect thing to share with his other queer friends who attend other universities. Ayush refrains from sharing anything, however because it would risk his parents seeing something and suspecting that he is gay. Even worse, family friends might see it and tell his parents.

In addition to creating the personas and scenarios, I combined a journey map and empathy map in order to further guide the brainstorming process (Appendix E). A journey map is a visualization of the process that people go through in order to accomplish a goal (Gibbons, Journey Mapping 101, 2018). Meanwhile, an empathy map is a collaborative visualization used to articulate what we know about a particular type of user (Gibbons, Empathy Mapping: The First Step in Design Thinking, 2018). As found in the interviews, the online experiences of TCUs can be frustrating from having to constantly filter *and* mitigate as need be. By combining the two

maps during the design exploration, I could better grasp the change in emotion throughout the different processes TCUs went through.

At the beginning of the design exploration, I provided a brief summary of the interview findings in order to provide relevant background knowledge of the target user population, TCUs. I shared insight on the closeness of the home communities and the ways in which extended family differed from TCU's nuclear families. I also spoke on the current ways that TCUs navigated their mixed audiences online. For example, I shared how TCUs often experienced a disconnect between audiences that originate from being in different cultures. Lastly, I spoke on the importance TCUs had of being proactive in order to filter their content. By sharing these insights, I wanted these researchers to recognize where their own experiences may be similar but also stress the ways in which TCUs have greater consequences and higher stakes.

Following the interview findings overview, I provided the three different personas and scenarios to the researchers, allowed them to ask any follow up questions, and then had them pair off into teams of two and pick a persona and scenario to focus on, based on which one they felt they could relate to more or had an interest in exploring. After providing them some time to discuss critical factors of the persona and scenario, I led them through a How Might We (HMW) brainstorming session. How Might We's are short questions used to support and launch (design) brainstorming. They fall out of your point-of-view statement or design principles as seeds of inspiration (Crowd Research). For these scenarios, the HMW's I asked were:

- (1) How might we support Tanvi in maintaining who knows about her relationship?
- (2) How might we allow Meera to block this content from specific people?
- (3) How might we help Ayush find better resources without outing himself?

I then provided hard-copies of the combined journey and empathy map to the small groups and asked them to work out the timeline of events happening in each scenario. The conventional journey map planning (Gibbons, Journey Mapping 101, 2018) was designed to separate the scenario into three phases. Within each phase, the researchers were asked to consider what their person might be thinking and feeling as well as brainstorm what needs and opportunities they may need along the way. The empathy map portion was attached at the bottom to provide the researchers with a space to fill in the emotions that the person might be feeling within each phase.

After roughly 30 minutes of brainstorming and ideating as pairs, the group was asked to come back together to share their journey/empathy map and the needs and opportunities, or solutions they had come up with.

Findings

Each small group's journey/empathy map provided the scenario split into three or four different phases. As the small groups continued to work, some found it more advantageous to work down the columns (phase by phase) while others chose to work through the rows (phase 1: thinking, feeling, needs and opportunities, emotions). Not all of the boxes were filled out, but all of the small groups brainstormed more than one idea to go with the different phases. Many of the ideas stemmed from the first or second phase, which led to the third phase not existing, and therefore not needing its own solution. The maps are as followed:

Tanvi

Phase	Out together in public	Photo is taken	Photo is shared/seen by family
Thinking	<ul style="list-style-type: none"> - Anxious - Possibility of seeing friends and family - No PDA 	<ul style="list-style-type: none"> - Do we look like we are together? - Standing/doing in photo - Do I look good? - Are my friends acceptable? 	<ul style="list-style-type: none"> - World is ending
Feeling	<ul style="list-style-type: none"> - Anxious - Excited - Self-satisfied 	<ul style="list-style-type: none"> - Anxiety increases - Self-aware 	<ul style="list-style-type: none"> - So much anxiety
Needs & Opportunities	<ul style="list-style-type: none"> - Not to be seen as a couple, privacy - Friends to be aware and respectful 	<ul style="list-style-type: none"> - Friends to be aware, stand between them - No added-on indications of romance 	
Emotion Charts	<ul style="list-style-type: none"> - Fun - Anxiety - Relaxed 		

*Table 1: Journey/Empathy Map for Tanvi**Meera*

Phase	Decide to go	At the party	After the party	Boom!
Thinking	<ul style="list-style-type: none"> - Wants to go to party being appropriate and conservative 	<ul style="list-style-type: none"> - More friends + social 	<ul style="list-style-type: none"> - Awesome! 	<ul style="list-style-type: none"> - Ahh!

Table 2: Journey/Empathy Map for Meera

Feeling	- Excited and trying to fit in outside her comfort zone	- Comfortable and pressured	- Awesome! - Included	- Exposed - Vulnerable - Context collapse - Scared
Needs & Opportunities	- Needs to feel control and comfort	- Make more friends on her terms	- More social connections	- Pics to be gone - Not to be tagged
Emotion Charts			Awesome	- Ahh!

Table 2: Journey/Empathy Map for Meera (cont.)

Ayush

Phase	Going to LGBT Event w/ partner	Wanting to share photos	Refraining from sharing
Thinking	- I feel comfortable at this event - I want to go to more of these events - It's nice to be in public with my partner	- I wish I could be more involved in community - I would if I could express my experiences - I want to develop deeper connection/contact with my friends	- I can't share because it's too risky - I might be disowned by my family - I might lose my culture
Feeling	- Deeper connection with community and partner - Interested, happy, valued - Belonging	- Desire to maintain contact - Desire to express	- Anxious - Disappointed - Fear - Lack of trust in family friends

Table 3: Journey/Empathy Map for Ayush

Needs & Opportunities	<ul style="list-style-type: none"> - Support at an event - Event-specific app that is secure? - Security about how info will flow before attending event 	<ul style="list-style-type: none"> - To be able to share photos selectively so certain people can/can't see 	<ul style="list-style-type: none"> - Specific people can't find out - Ways to mitigate if they do? - Anonymity / multiple personas
Emotion Charts			

Table 3: Journey/Exercise Map for Ayush (cont.)

A few solutions that arose from Tanvi's journey/empathy map and HMW exercises included mimicking Facebook's break-up workflow, blocking co-tags, a don't show group, and a show only group. A large tension in Tanvi's scenario is phase 2, when the photo is taken. This is the point where Tanvi must go into a filtering and mitigation mode to ensure that this photo is only seen by certain people.

The first solution of mimicking Facebook's break-up workflow would mediate this tension by limiting people's ability to see photos of Tanvi and her boyfriend. Facebook's current break-up workflow is put into action once someone changes their relationship status from married or in a relationship to single or no relationship (Newton, 2015). Their current tools focus on three main components: limiting how much of your ex you see on Facebook; limiting how much your ex sees of you on Facebook; and limiting people's ability to see past posts where the two of you are together (Newton, 2015). The researchers believed that a similar tool could be useful for TCUs on other platforms, such as Instagram where a user could stumble across tagged content.

Their second idea, blocking co-tags also stemmed from phase 2, when the photo is taken. The cause of Tanvi's family seeing the photo is that their friend tagged both of them in it, causing it to show up on Tanvi's account. The researchers suggested a solution to allow users to block all content they had tagged with another person. Hypothetically, Tanvi could set her account so that she would not be able to be tagged in any of the same content as her boyfriend and vice versa.

The third solution, a don't show group would allow Tanvi to create her own group of people, in that case it might be her cousins, that could only see specific content curated to them. The opposite idea, a show only group would also be created by a user to share specific content. Both of these group options would be useful in Tanvi's scenario because she's not hiding her boyfriend from all of her audiences. These groups could also allow Tanvi to feel more relaxed when sharing online if she knew exactly who her audience was all of the time.

Solutions for Meera's scenario involved adding more permission and privacy settings, a recall window, and a pre-event setting. Meera's largest point of tension is after the party when she doesn't immediately see the photos she is tagged in, which makes her scared and left feeling vulnerable.

The permission and privacy settings that researchers suggested could be altered included sharing settings by recently added friends or followers. Setting these permission options could effectively aid Meera to be more proactive of what is being put online by people who may not be aware of the social circumstances Meera is in. This idea is great in allowing Meera to enjoy the excitement of meeting new people during phase 1 and could bring Meera a lot of comfort in knowing she can be comfortable and included without feeling exposed online.

The second solution stemmed out of the third phase, after the party, when Meera finds out that photos with her in them have been uploaded. A recall window is a timeframe in which a user would be able to check what content they have been tagged in within the past X hours. The researchers suggested that this number be changeable to account for how long an event was happening. In this scenario, Meera would be able to set up this recall window for 12 hours in which she could recall any of the photos of her at the pool party that she did not want to be tagged in. Similar to the first solution, this idea allows Meera to find comfort and joy in meeting new people who may not know the family circumstances she is in. With this, she wouldn't even have to tell these new friends about the circumstances in the first place if she knows she is able to filter everything she is tagged in.

The final solution, a pre-event setting, is a filter option that a user could change if they know they will be at an event that they don't necessarily want to be shown online. In Meera's case, this setting could be used before she even heads to the pool party as a way to block or pause any tagged photos from that event. During phase 1 of Meera's scenario, the researchers described her feeling excited and trying to step outside her comfort zone. Meanwhile, this solution would allow Meera's comfort zone to remain at a pre-determined level of comfort that she knows works for her and all of her audiences as she expands that zone offline.

The final scenario, Ayush's, offered three solutions, a new app, a ghost view setting, and a throwaway account. The researchers focused on Ayush's desire to stay connected to his lesser known community while brainstorming ways to make sure he didn't out himself through shared likes or comments as that would result in a lot of anxiety and fear facing his family.

Focusing on phase 2, the first solution was a new app idea that would allow users to have a shared space for that specific community along with resources to connect its users to others.

This app would offer Ayush a safe space to interact with others and invite his own friends for private sharing of his own content, such as posts or photos. One option to allow someone into the group was through in-person events hosted by that community. The second idea was through approval of people already in the group. Eventually, if Ayush were to want to participate more in this community, he'd have the ability to do so while gaining a deeper connection with this community and even his partner, like he does in Phase 1.

The second scenario of a ghost view was brainstormed for if a user didn't want to download a whole new app. In Ayush's case, the ghost view would allow Ayush access to this community, but his account would act as a ghost, unable to interact with likes or comments. This could relieve a lot of anxiety in phase 3 of wanting to share content without the risk of being recognized by someone.

A final solution for Ayush's scenario was an idea of separate "closet" social media accounts. These would act as throwaway accounts so there would be no need for a name, an email, or any identifying feature. This account could provide connections with LGBT support groups and resources if something goes wrong and could also allow you to post about support and meeting times but would require an approval or verification to join. These throwaway accounts could relieve a lot of tension that Ayush feels in phase 2 when he wants to participate and share photos to this community.

The group discussions allowed the pairs to share their journey/empathy maps along with their different solutions. The discussion included talks about the novelty of each idea and a mention of who else would benefit. After sharing Tanvi's map and solutions, the group discussed better ways to empower friends to be respectful of the relationship by offloading the responsibility from the end user which in turn would empower the network. Another point

brought up was a support system for Tanvi's boyfriend, too. While Tanvi holds higher consequences if the relationship is spotted by family members, her boyfriend is also in the process of constantly hiding the relationship as well and deserves support. For Meera's scenario, the group came up with a fourth idea of an algorithm that utilized object recognition, such as identifying certain clothes on a person, that would later cluster itself and allow a user to review every photo of them with those identified clothes. For example, if Meera were wearing a swimsuit and the algorithm was able to detect that, it could cluster those photos of her in a swimsuit and wait for her approval before publicly posting those photos. A comment on Ayush's app idea was that you would need to convince people to download and use a whole new app. The ghost mode was neat in theory but felt a bit like "lurking" on a community.

Analysis

The discussions from the research lab provided ideas of new features and shared tools that already existed on our platforms. Many of the ideas were built off of previously existing ideas, meaning in theory, they would be easier to implement. Some of the current existing ideas were not all known to the other researchers, nor had the interview participants mentioned them. With this in mind, I realized the focus of creating new technological design solutions might shift to getting users to find these current tools and actually start using them. Ultimately, all of the design solutions were suggesting giving users more control over their content to avoid context collapse without putting the blame on the user. The brainstorming also reflected how the current designs are allowing for context collapse by not always letting TCUs interact with their different cultures and audiences separately. It was critical to me to bring these design ideas back to the

target audience to see if it would remind users of any other current tools and identify where these ideas could be improved.

Focus Group

My final method was a focus group which I used to share the ideas from the design exploration back to TCUs. The objective of this focus group was to deduce how the design exploration ideas worked or didn't work for TCU's other online experiences. I worked with the original stakeholders who were participants from my interviews and evaluated ways the ideas could be improved to better support their own needs.

Interview participants who had volunteered their email prior were contacted again to see if they were willing to participate in a focus group. Two members of the original interviewees were able to participate. Of the two participants, one identified as female (P01) and one identified as male (P02). P01 was 20 years old and P02 was 21 years old. The two home cultures the participants represented was Indian and Iraqi.

Methods

To prepare the group, I developed a study plan which included a short meet and greet for the participants to introduce themselves to each other, a drawing session of their social networks, a brainstorm of three different scenarios, a presentation of the design exploration ideas, and a conversation on how to adjust and refine the design exploration ideas to better fit the needs of their three scenarios.

A social network map is a tool that can be used to determine and assist in understanding the nature of social interactions between individuals as well as groups. This method can also support figuring out which individuals hold what level of influence over another individual or group (Think.Design, 2020). I had the participants use white boards to draw out their own social networking maps as a way to re jog their memory from their personal interviews and to be a resource to help them explain their thinking later on.

Following the social network map, I asked each participant to create three scenarios of times when they or people they knew had experienced mixed audiences seeing their content. In order to further guide their thinking, I shared the personas and scenarios from the design exploration as samples that I had created earlier. I chose not to tell them that they were used for the design exploration as I wanted to keep the ideations independent. The scenarios the participants created are as followed:

Scenario 1: Devi is from a huge achieving family. Both her parents are doctors and she faces lots of high expectations from them. She is unsure about what she wants to do as a career, so to please her parents she decides to go into pre-med in college. Even though she does not truly want to be a doctor, she plans to go to med school.

Scenario 2: Nayha has a boyfriend that neither of her parents knows about. Although their parents are friends and would approve of them being together, Nayha knows that this would cause them to pressure her about marriage. She is not ready to get married, as she wants to finish school and find a job first.

Scenario 3: Ananya has been dating a man who is not Indian for about 4 years. Her parents know about him and advise her not to tell the rest of their extended family about him, until they are engaged. She follows her parents' advice, but her cousins are upset when they find out she is engaged. Many of them have had to keep significant others a secret from their parents, but do not understand why Ananya had hidden her boyfriend from them.

Scenario 4: Khalid is a CU Boulder student who is from the UAE. He grew up in the Middle East for most of his life but had traveled a lot with his family and had gone to international and boarding school. Khalid became very involved with people on campus and eventually had many friends from different groups. He had always felt in-between cultures because he grew up in the Middle East but went to an International School that is western-oriented and had spent a lot of time abroad. Khalid came out in his junior year of college but only to his non-Muslim/Middle Eastern friends. He maintained a heteronormative sexuality among his Arab/Middle Eastern friends until there was a mixture at his birthday party in which the two groups interchanged their experiences with Khalid and his sexuality was revealed to his Middle Eastern friends.

Scenario 5: Anya is an Afghan student at CU Boulder that was born and raised in Colorado. She comes from a very liberal and open direct family but a more traditional and conservative extended family and community. Anaya starts seeing a guy and eventually they start dating. Much of her friend group and her direct family know about her relationship but the extended family and Afghan family don't. Anaya goes out to sushi with her friends and her friend takes a Snapchat video of everyone at sushi where Anaya and her boyfriend seem very close and displaying public affection. Anaya asks her friend to take down the video.

Scenario 6: Abdul has been talking to a girl and they have gotten to be really close. He is Muslim and comes from a traditional Pakistani family. The girl he is interested in is also Muslim. He wants to ask her out on a date, but he is not sure how to ask because for his family and many in his community dating is taboo. He is advised by his friends to frame it as a date anyway. They start dating but only tell very few people about it.

Following the scenarios, I had each participant share out their experiences to the group before introducing the ideas from the design exploration (study 2) to them. Within the introduction of the design exploration ideas, I was explicit in telling them that they were unfinished, easily moldable products and the goal was to make these ideas work better for their created scenarios. I wanted to assure the participants that there were no hard feelings in adjusting these ideas. I chose to not include any names in hopes that the participants could assume they weren't going to hurt anyone's feelings by talking about what would work and what wouldn't. The ultimate goal of this conversation was to distinguish how an idea might handle the movement of information for specific scenarios. The most important conversations I wanted to hold involved the participants sharing why an idea would or would not support their scenarios.

After sitting with the designs for a couple of minutes, the participants were then asked how they could improve these ideas to better fit their own scenarios. The group chose to discuss each design concept individually and look through their own scenarios to confirm whether or not the design solution would aid or hinder their scenario. Throughout the discussion, the participants were able to use their own social network drawings and experiences to work through what would work best and how to adjust the three prototype ideas. A reflection period was offered at the end

of the session for the two participants to share any final thoughts and to ask questions they had about the process.

Findings

The outcome of the focus group included two people's network maps, six scenarios, and an evaluation of how the three ideated design exploration prototypes would address and meet the needs of those six scenarios. This focus group allowed me to be cognizant of how each prototype would be able to handle the movement of information but also the ways in which information would be hindered.

We first investigated the design exploration solutions from Tanvi's scenario which involved Tanvi and her boyfriend getting tagged in a picture together that her cousins see later on. The solutions included the mimicked break-up workflow from Facebook, the co-tagging option, and the two small groups to block or show certain people.

The break-up workflow solution from Facebook was interesting, but both participants stated that it wasn't favorable to any of their own created scenarios as these were people who were trying to be more private online. For example, scenarios 2, 3, and 5 were all surrounding hidden relationships in which a person was attempting to hide their relationship from either their parents and extended family or from their friends. Because of the awareness that these relationships would have to be kept somewhat hidden for a certain time period, the participants knew that these people would never change their relationship status in the first place. They did mention that the idea itself was useful if their scenarios involved someone actually breaking up with their partner.

The idea of blocking co-tags was appealing for the scenarios that involved a lot of people not knowing about the relationship. For example, in scenario 3, Ananya is hiding her relationship from everyone except her parents. The participants stated that the ability to block a co-tag was most ideal when you didn't want to have to pick and choose who could see certain content every time content was uploaded. They also mentioned that this solution was the quickest and most efficient option to ensuring that nobody saw any content at all rather than creating small groups of different audiences all of the time.

The final design solution from Tanvi's scenario were the two groups, don't show or show only. The participants mentioned that these would be useful for the scenarios in which they are only hiding or only wanting to show *small* groups of people. The concern mentioned was that these groups could easily be made larger if their person did not have control over who was allowed in and out of the group. The group dynamic was handy as it mimicked the way groups were organized offline by TCUs, but the participants noted concern that the content posted in those groups still had the ability to get out to other people without their knowledge.

Following the solutions from Tanvi's scenario, we chose to look at the solutions from Meera's scenario. To recall, Meera was tagged in photos of her in a swimsuit from a pool party that her parents and family saw and deemed inappropriate. The solutions included a recall window to delete any activity, more permission and privacy settings for newly added friends or followers, and a pre-event setting.

The recall window was most useful to scenarios 1, 2, and 4. To recap, scenario 1 described Devi, a daughter of two doctors who was not passionate about also becoming a doctor. The permission settings were useful in allowing Devi to hide some of her other interests from her parents and extended family. P01 felt this window would be useful for someone who was trying

to retain a more professional online presence. In scenario 2, Ananya is attempting to hide her relationship from her cousins and friends, but her parents know about the relationship. P01 mentioned that this window would be similar to blocking co-tags in that it would also allow Ananya to control who was able to see what, and thus lower the consequences that could come with a friend or family member seeing the relationship. Scenario 4 described Khalid who was not out to all of his friends until his audiences all intermingled at his birthday party and he is outed. P02 discussed the ways in which Khalid would not want to be outed further if people saw photos from his birthday party and asked more questions. P02 briefly mentioned that without a way for Khalid to double check what's being uploaded that involves him, it's likely that he would choose to post nothing as a means of covering all of his bases so that no further details or questions from the birthday party come out.

P01 also brought up the idea that the X-hour recall should be able to be modified for those who aren't on social media as much or for those who are on far more frequently. By doing this, it would allow the user to better decide a timeframe for them to open their platforms without feeling pressure to look at any recent uploads immediately after an event, or during an event.

The permission and privacy settings solution explored how to allow users to better moderate their newly added friends or followers. P01 and P02 believed this would most benefit scenario 1. P01 explained that in scenario 1, Devi may want to try exploring new career paths without her parents knowing. Because of this, Devi would be likely to meet a lot of new people in different fields who could quickly tag her in content of them at different events or meetings. These friends would unknowingly connect themselves to Devi in a way that could harm her by showing that she is not serious about pre-med. By adding permission settings to new friends and

followers, Devi could easily limit the content she's tagged in thus maintaining her online profile's focus in pre-med.

The final solution from Meera's exploration was a pre-event setting in which a user could attend an event and not have it appear online. P02 claimed that this idea was best for scenario 4. Similar to the recall option, Khalid could have the ability to stay in a more comfortable comfort zone at this event, for example his birthday party, knowing that he could not be tagged or mentioned in any content from the event, thus allowing him to maintain a heteronormative sexuality among certain groups.

The last design exploration solutions came from Ayush's scenario. Ayush was not out to his family yet but was out to specific friends and wanted to find ways to stay connected to that community without outing himself. One of these solutions included a new app to allow Ayush a safe space to connect with others and obtain resources that he might not have received from his family or home community. The second solution was a ghost view that would allow Ayush access to the community and resources but would not allow him to participate through comments or likes. The final solution was a closet social media account, or throwaway account option to allow Ayush to participate without any personal identifying information.

The ability to invite friends for sharing privately was the most appealing aspect of the new app for both participants. P01 claimed it would be most useful for scenarios 2 and 3 and P02 added that it would also be useful for scenario 5. In scenario 2, Nayha does not want to post any content about her boyfriend online because she knows her family would pressure her into marriage. This private friend group would be beneficial to her so that she could share content about her boyfriend on an entirely new platform away from her family. P01 mentioned that these groups would be even more beneficial if they could not be found by anyone. P02 included that

these private groups might work best if you can only enter them through shared links by a singular moderator only. In scenario 5, Anya is also trying to keep her relationship hidden and off of social media so that her traditional and conservative extended family does not question her actions. The appeal of the app was its newness as it meant no family would be on it and Anya would have time to build up her own groups before her family ever created accounts. This app was also appealing to scenario 4 due to the connection of resources this app could potentially offer.

Both participants questioned how one would join the app in the first place, which led to a conversation about the option of signing up in person at an event hosted by that particular community. P01 stated that an in-person meeting could work but had too much risk of being seen. For example, both P01 and P02 shared how in their own social network maps, there was overlap between a lot of the cultural associations they were involved with. If one of those cultural associations were to host an event, all of the others would likely hear about it or be invited to it. For users who are trying to be more hidden with their activity, these in-person events could easily be seen by these overlapping communities and they'd risk their activity getting out to even more people. Ultimately, a stand-in solution that P02 suggested for entering a community was to know someone in the community and be invited by that person. While it wasn't the most ideal solution, both P01 and P02 agreed that it'd be safer than an in-person event.

The ghost view solution was not very appealing to either participant as they believed that apps should allow users to know who has seen their content. They continued in stating that if ghost view were to become a thing, it would only be useful if a user trusted every single one of their friends and followers to not spread their content.

The final solution of closet/throwaway accounts was also not very appealing to either participant because they were concerned that it would be exploited which could further harm every single one of their people in their scenarios.

Of all of the design exploration ideas, the blocked co-tagging solution was considered the most feasible by the participants. The ability to simply block being tagged with another person was the easiest solution for any of the scenarios involving hidden relationships. Both participants felt the recall window from Meera's scenario was useful but could take a long time if a user had to look through multiple photos from an event. The two different group solutions from Tanvi's scenario, don't show or show only, were also considered effective but were deemed strenuous to maintain if either of those groups were to become too large. Having too large of groups also meant that information was more likely to get leaked due to the closeness and overlap of friends and home communities.

Analysis

One of the largest shifts this focus group offered my research was the switch from individual events to on-going events. Both participants mentioned early in the discussion of the three solutions that all of the scenarios they had created were focused on on-going or long-term events as that was what they were most used to hearing about or experiencing. Similar to the theme, *shared experiences*, from the interviews, I observed that the smaller groups were more appropriate when focusing on experiences with specifics or a lot of details and background knowledge. These scenarios that the two participants created all possessed specific background details that made the scenarios more complex and thus influenced their perspective of which ideas worked better.

The terms “trust” and “reliability” were brought up multiple times, which was similar to the codes revealed from the interviews when asked “what does it mean to be a part of a community?” P01 commented that online media is often spilled into offline spaces. They provided the example of one of their aunts not being on Facebook but hearing about what was put on Facebook regardless, solely based on other friends being online. Because of this understanding, the trust and reliability that a TCU has with their friends online is one of the most indispensable factors in deciding what to post.

Notifications were also a key factor in the discussion as they benefited every scenario in following the path of the content they were tagged in. Sometimes, these notifications were time sensitive as well. In scenario 4 when Khalid is throwing a birthday party, it was crucial that he knew when content about him was posted so that he could monitor what people were saying in the hopes of not being outed. For the scenarios involving relationships, time also played a factor in knowing if a cousin overseas could see the content before it was removed. P01 and P02 felt that notifications were often annoying, but ultimately, they were indispensable in reducing the high consequences and ensuring people’s safety in their scenarios.

Conclusion

This thesis was designed to explore how third-culture kids experienced their identity online in an era where our social media aims to connect us all the time to everyone. Through this process, the term third-culture *user* was created to cover a broader range of social media users. Unlike a third-culture kid or a third-culture individual, this thesis utilized the term *user* in order to explore their use of technology and identity. The term also supports the focus on how the movement of culture was being mediated through technology by these people.

I wanted to know to what extent our social media was unknowingly disrespecting the boundaries that TCUs consistently worked on maintaining and how we could design our SNS platforms to better respect these boundaries.

Based on the interviews, I found four main themes: connection and disconnection with cultural identity, filtering, social media mitigation, and shared experiences online. The results presented the multitude of communities that TCUs were a part of and the importance of their home culture and community. This home community allows TCUs to be connected to a greater part of their culture while they live within in a secondary culture. Because of this, many TCUs discuss the ways in which they live within their different communities through acting as a bridge between cultures and maintaining social boundaries out of consideration for their networks. However, these networks pour over into our online lives causing TCUs to constantly and proactively manage their networks for a second time. These different communities all hold different cultural values and consequences creating an entanglement for TCUs to decide what to post in the first place and how to filter and often mitigate when necessary. Online, TCUs receive support through online connections, including through groups and community pages, allowing them to navigate their secondary culture. Offline, TCUs gain support through other TCUs when sharing experiences with multiple details or background knowledge.

The design exploration explored three crafted personas and scenarios based off of the interviews. Through a small and large group brainstorming session, myself and fellow researchers were able to brainstorm a variety of possible solutions to scenarios specific to TCUs. These ideas took shape in the form of a new app, a break-up workflow, a co-tagging option, and a recall window.

I took those design ideas back to the target audience to further evaluate how these ideas could assist their personal experiences. It was in this discussion that I found that while these ideas were convenient at times, I couldn't just think about designing for short-term experiences, but needed to provide TCUs with tools to support their ongoing boundaries.

When thinking of ways our social media could better be designed to respect the boundaries of TCUs, there are a few design suggestions to support designers in better respecting online social boundaries:

The results from my interviews demonstrated that TCUs use large online groups to broaden their knowledge of the culture they identify with while the smaller offline groups to which they belong offer more detailed and specific experiences. Integrating core small group features into our social media are valuable in that they would offer TCUs a new space to share their experiences.

A second design suggestion is to allow users more control of their notifications. In the focus group, the participants stated that the notifications that someone was tagged were crucial because it allowed people in their scenarios to see where to mitigate quickly. Albeit annoying at first, notifications of the tagged content were even more essential because they offered users a way to quickly see what they were tagged in but also who commented or reacted to that content. For example, one of the scenarios from the focus group described Anya who is hiding her boyfriend from her more traditional and conservative extended family. In this scenario, a friend uploads a video of her, her boyfriend, and other friends out at dinner. Anya is notified of this video as soon as her friend posts it, which allows her to remove herself from it and even ask her friend to take it down. In this scenario, the notification provided a digital path of her friend's video that supported Anya in filtering the content on her own platform which resulted in her

extended family not seeing her with her boyfriend. Designers should be wary of these digital paths and allow users more options for what content they want to be notified about so that they can more proactively monitor their platforms and ensure that their identities between the different cultural communities stay where they want them to.

A final design solution is to mimic the community values that TCUs are a part of within the designs of our SNSs. The insights from the design exploration overlapped with the interview codes, *trust and reliability*, which stemmed from participant's answers to the question, "what does it mean to be a part of something?" These two codes are meaningful in any community and designers should take these two key ideas and implement them into more parts of their platform so that users know they can trust these spaces like they would their offline community. For example, having notifications when a person screenshots something can show users that these platforms are taking into consideration that users are often being vulnerable when posting and should be notified when that content is being passed around. For TCUs, these additional considerations hold even higher stakes as TCU's mixed audiences allow for more context collapse. When looking into the community values that TCUs are a part of, it's significant to note that the trust and reliability in those communities, specifically their home community, holds higher consequences when broken. If TCUs are able to trust that their SNS platforms will hold themselves to the same standard of trust and reliability that these home communities do, it can allow TCUs to feel more comfortable posting in the first place.

Within these three design solutions, designers should recognize that content will almost always have the possibility of slipping out into other spaces. Online, mixing audiences is inevitable which further allows content to be spread in unwanted ways. Integrating small group features, allowing users more control of their notifications, and mimicking the trust and

reliability that are developed within a home community, will allow users, specifically TCUs more control over their personal content and the content they are tagged in. This shift in control is imperative because users will always want to filter their content before it goes online.

Allowing more control to TCUs is even more vital as it can save them from higher consequences put forth by their offline communities. In summary, these solutions allow TCUs to focus on filtering their own content as any user would do without having to worry about the chances of certain audiences seeing their content and having to mitigate that content afterwards.

Limitations and Future Work

With any research, there are limitations to this work. My sample size was relatively small and non-representative of the diversity of experiences TCUs hold. The Rocky Mountain region, as well as the city of Boulder, is predominately a white American culture, so the TCUs I worked with who were in-state students were not as exposed to such large home communities. For future work, re-answering how to better design our social media platforms with a broader range of ethnic and national backgrounds would benefit this research by producing new or varied design suggestions.

Another future study could investigate the differences between TCUs throughout the United States to gain better insight on how the demographic of a city influences one's identity, both online and offline. As mentioned during the interview study, many users who had cousins in different cities noted that while they were able to relate to their cousins in some ways, their cultural identity remains different due to the different demographics of each location.

A third future study could specifically work with TCUs attending an out-of-state school to comprehend how being away from a well-connected home community can influence their identity on and offline.

The third culture of TCUs are the amalgamation of their first two cultures. TCUs reside in this third culture as they become bridges between the first two cultures to both their friends and family, along with other TCUs. It's necessary and meaningful to support TCUs and ensure they are able to connect and separate their own communities in the ways they need. My hope is that future work on designing SNS platforms continues to keep TCUs and their multiple diverse communities in mind as they share their own cultural experiences with these communities.

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Appendix

Appendix A

Interview Study Information Sheet

You are invited to participate in a research study of how third culture users navigate their social groups being connected online when they don't want them to be. We ask that you read this document and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Marissa Kelley of the Department of Information Science at the University of Colorado Boulder. Your participation will help inform the design of online platforms, as well as contribute to broader academic knowledge about experiences with algorithmically curated content.

Study Purpose

The purpose of the study is to investigate how third culture users navigate their social groups being connected online when they don't want them to be. While the goal of most social media platforms is to make us better connected, there are times when we don't want to be. Offline, many people have social groups that they keep separate for various reasons, but when our algorithms try to connect those groups together, there can be consequences. Specifically, third-culture users who live between various cultures bring different, unique clashes to their online identities. We would like to better understand what differences they experience and how they manage different/distinct communities on different platforms. This research will also focus on content that people encounter as a result of algorithms that aim to connect us to other people. Ultimately, we hope to use this knowledge to better understand the impact of our algorithms disrespecting boundaries and therefore design better platforms.

Procedures for the Study

If you agree to be in the study, you will participate in an interview. This interview will include questions about your experiences with disrespected online boundaries. You may be asked about your offline social practices, your online and social media practices, the circumstances under which you encounter this content, and contextual information about the content you have encountered.

We expect that you will be in this research study for one 30-90-minute session. The interviews will be conducted either in-person at a location of your choice, or remotely through platforms and forms (e.g., audio or video) of your choice. You will be asked questions listed in the attached interview protocol (with room of slight adjustments). The interview will be recorded upon your consent and the recordings will be later transcribed so that researchers can better remember what you said.

There will only be one visit. Any personally identifiable information such as race and ethnicity will be connected to the audio recording files and transcripts, however we will track participants using unique identifiers (e.g., P1, P2). These identifiers will be linked to contact information from the participants in a document, which will only be available to authorized personnel. In all other documents, all participants will be referred to using their unique identifier. You will not be required to give us your full or real names and can refuse to answer any questions that you feel may threaten your privacy.

Confidentiality

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Your identity will be held in confidence in reports in which the study may be published. Audio or video recordings will only be accessed by researchers associated with this project.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study of investigator and his/her research associates, the University of Colorado Boulder Institutional Review Board or its designees, and (as allowed by law) state or federal agencies, specifically the Office for Human Research Protections (OHRP).

Costs and Benefits

You will not benefit directly from participation in this study, and there are no costs to you associated with participation in this study other than your time. There will be a potential benefit to society in the form of increased knowledge in the fields of computer science and computer-based communication. The study will also help researchers inform future designs of social networking sites.

Voluntary Nature of Study

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. Your decision whether or not to participate in this study will not affect your current or future relations with the University of Colorado Boulder.

Contacts for Questions or Problems

For questions about the study, contact the researcher:

Marissa Kelley
(720) 261-7901
Marissa.Kelley@colorado.edu

For questions about your rights as a research participant or to discuss problems, complaints or concerns about a research study, or to obtain information, or offer input, contact the University of Colorado Boulder Institutional Review Board at (303) 735-3702 or irbadmin@colorado.edu.

Appendix B Focus group Study Information Sheet

You are invited to participate in a research study of how third culture users navigate their social groups being connected online when they don't want them to be. We ask that you read this document and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Marissa Kelley of the Department of Information Science at the University of Colorado Boulder. Your participation will help inform the design of online platforms, as well as contribute to broader academic knowledge about experiences with algorithmically curated content.

Study Purpose

The purpose of the study is to investigate how third culture users navigate their social groups being connected online when they don't want them to be. While the goal of most social media platforms is to make us better connected, there are times when we don't want to be. Offline, many people have social groups that they keep separate for various reasons, but when our algorithms try to connect those groups together, there can be consequences. Specifically, third-culture users who live between various cultures bring different, unique clashes to their online identities. We would like to better understand what differences they experience and how they manage different/distinct communities on different platforms. This research will also focus on content that people encounter as a result of algorithms that aim to connect us to other people. Ultimately, we hope to use this knowledge to better understand the impact of our algorithms disrespecting boundaries and therefore design better platforms.

Procedures for the Study

If you agree to be in the study, you will participate in a 120 to 180-minute focus group with other stakeholders. The focus group will involve the following group activities: working with and discussing low-fidelity prototypes, brainstorming and creating storyboards, discussing their online experiences.

The focus group will be documented via photos and an audio recording so that researchers can better remember what you have said. Additionally, researchers may take notes to help them remember ideas that were shared that may not have been captured by the audio recording.

There will only be one focus group. Any personally identifiable information such as race and ethnicity will be connected to the audio recording files and transcripts, however we will track participants using unique identifiers (e.g., P1, P2). These identifiers will be linked to contact information from the participants in a document, which will only be available to authorized personnel. In all other documents, all participants will be referred to using their unique identifier. You will not be required to give us your full or real names and can refuse to answer any questions that you feel may threaten your privacy.

Confidentiality

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. While participants are encouraged to keep what is discussed here confidential, this is also not a guarantee. Your identity will be held in confidence reports and any recordings or images will be kept indefinitely in encrypted archives.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study of investigator and his/her research associates, the University of Colorado Boulder Institutional Review Board or its designees, and (as allowed by law) state or federal agencies, specifically the Office for Human Research Protections (OHRP).

Costs and Benefits

You will not benefit directly from participation in this study, and there are no costs to you associated with participation in this study other than your time. There will be a potential benefit to society in the form of increased knowledge in the fields of computer science and computer-based communication. The study will also help researchers inform future designs of social networking sites.

Voluntary Nature of Study

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. Your decision whether or not to participate in this study will not affect your current or future relations with the University of Colorado Boulder.

Contacts for Questions or Problems

For questions about the study, contact the researcher:

Marissa Kelley
(720) 261-7901
Marissa.Kelley@colorado.edu

For questions about your rights as a research participant or to discuss problems, complaints or concerns about a research study, or to obtain information, or offer input, contact the University of Colorado Boulder Institutional Review Board at (303) 735-3702 or irbadmin@colorado.edu.

Appendix C Interview Protocol

Introduction

In this section, you introduce yourself, the project, and get through the mechanics of the interview.

1. [Who I am, what I am doing]
 - a. Hi, my name is Marissa and I am a student doing research on people's relationship with technology- specifically managing unwanted connections online.
2. [Project description]
 - a. This study is about how people navigate their social groups being connected online when they don't want them to be, specifically on Facebook (FB) and Instagram (IG). Ultimately, the end goal would be to design better technology that respects our social boundaries.
 - b. Standard confidentiality and participation talk
 - i. Everything you say will be anonymized
 - ii. Free to stop at any time
 - iii. Free to not answer a question
 - iv. Casual/lay conversation
 - c. To clarify, your participation in this study is confidential. Your interview will be anonymized and no one will see the transcripts but the researchers involved in this project. You also can decline to answer any of the questions I ask.
3. [Wrap-up]
 - a. Is it okay if I record this conversation?
 - b. Do you mind if I take a few notes on my laptop?
 - c. Did you have any questions about this interview before we start?
 - d. On the record, have you read the information sheet and do you agree to participate in this study?

Demographic Questions

1. Age
2. Gender
3. Where you're from?
4. What ethnicities do you identify as?
5. What cultures and communities are you a part of?
 - a. Ex: at school, being a part of different student associations, at home being a part of a larger [X] community, etc.
 - b. What does "being a part of" mean to you?
 - i. Community, belonging, individuality is valued

Questions

Social-Offline

1. Can you tell me about the connections you have in your life and are there different groups? What are those groups?

2. Do you stay connected to all of your different cultures? How so?
3. What's your identity when you are with your family vs. with friends?
 - a. What about when you're at school?
4. Do you ever purposely try to separate these groups? Or parts of these groups?
 - a. I.e. certain friends don't meet family and vice versa
 - b. What methods/actions do you take to keep these groups people separate?
5. Are there other areas of your life (academics, sports, clubs, etc.) that are influenced by being a part of one of these communities?
 - a. Was there any hesitation or backlash on being in /joining one of these activities?
6. Are there places where you feel you're more a part of one culture than another? I.e. does your identity change across contexts?
 - a. Who else is involved?
 - b. Do you share these different experiences with the "other community"?

Social-Online

1. Social Media "intro"
 - a. When did you first start using social media [IG & FB]?
 - b. How much do you use social media [IG & FB]?
 - c. What do you primarily use social media [IG & FB] for?
2. Can you tell me about the connections you have on that platform and are there different groups? What are those groups?
 - a. And when you're online what do you post about?
3. Do you stay connected to all of your different cultures when you're online?
 - a. How so?
4. When you think of your online identity, do you take into consideration who else is seeing your content?
 - a. Family, friends?
5. Do you ever (try to) separate these groups online? Or parts of these groups?
 - a. I.e. certain friends don't meet family and vice versa
6. Does your identity change between platforms?
7. Have there been times when you've been connected to someone you didn't want to be connected to?
8. Have there been times when you've seen your friends or family being connected in a way where you didn't want them to be?
 - a. I.e. seeing posts, friends, etc. you didn't want them to see
 - b. Where there any consequences?

Wrap-up

1. Do you have any questions for me? Or anything you'd like to add?

Thank them for their time.

Turn off the recorder (but don't turn it off too fast, people often say awesome things right at the very end).

Would you like a follow-up with this research?

Appendix D Recruitment Email

[This email template is designed to be flexible based on context. Text that is <enclosed in angled brackets> will be replaced with specific details such as names and dates. Text that appears in [square brackets] will not be included in the recruiting email but is included here to explain how the template will be used.

RECRUITMENT EMAIL

Hi <insert name>,

My name is Marissa Kelley and I interviewed recently about your experiences as a third culture user. I'm contacting you to ask if you'd be interested in participating in a follow-up focus group. This focus group's goal is to better understand solutions that work towards a designing a platform that better respects third-culture user's boundaries.

The focus group will run 120-180 minutes (2-3 hours) and will take place [at a location on campus] <a particular location> on <a particular time and date>. Food and beverages will be provided for all participants! During the focus group, you will be asked to brainstorm design solutions via sketches, storyboarding, and prototypes with other previously interviewed participants.

Participation is completely voluntary, and you are under no obligation to take part in this study. Please let me know if you have any questions, or if you might be interested in participating.

[The following text will be included if a date/location are not already determined:]

Once we have a list of interested individuals, we'll work to schedule a time and location that is convenient for everyone. If you are able to participate, can you please respond back with what time of day & what days would work best for you?

Thank you!
Marissa Kelley

For your reference, this research has been reviewed by the University of Colorado Boulder's Institutional Review Board under protocol #19-0664.

RESPONSE EMAIL

Hi <insert name>,

Thank you for your interest in participating in our research study! This focus group's goal is to better understand solutions that work towards a designing a platform that better respects third-culture user's boundaries. As a reminder, the focus group will take 120-180 minutes and will take place at [a location on campus] at <a particular date & time>.

By participating in this research, you'll have the opportunity to compare experiences and discuss possible solutions with others. This will happen through a brainstorming session to design solutions via sketches, storyboarding, and prototypes. These discussions may be considered in future decisions about the design of our social media. Food and beverages will be provided for all participants.

Participation is completely voluntary, and you are under no obligation to take part in this study.

I look forward to working with you again! Thank you!
Marissa Kelley

For your reference, this research has been reviewed by the University of Colorado Boulder's Institutional Review Board under protocol #19-0664.

Appendix E

Journey and Empathy Map

Persona/Scenario:			
<i>Phase</i>			
<i>Thinking</i>			
<i>Feeling</i>			
<i>Needs and Opportunities</i>			
<i>Emotion Charts</i>			

Appendix F

Affinity Diagram

