

# A UNITED STATE

MODERATION. DIVERSITY. RECIPROCITY. EQUALITY.  
Designing mobile technology to support productive online political discourse

“The ties which hold men together in action are numerous, tough and subtle. But they are invisible and intangible. We have the physical tools of communication as never before. The thoughts and aspirations congruous with them are not communicated, and hence are not common. Without such communication the public will remain shadowy and formless, seeking spasmodically for itself, but seizing and holding its shadow rather than its substance. Till the Great Society is converted into a Great Community, the Public will remain in eclipse. Communication can alone create a great community.”

– John Dewey, *The Public and Its Problems* (p. 142), 1927

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This work is dedicated to my wife, Natalie.

In so many ways, she did so much more work than I did to make this possible.

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## ABSTRACT

I have endeavored upon this thesis work in an attempt to find design solutions to the pressing societal problems of ever-increasing political polarization coupled with widespread dissatisfaction with social media's effect on our political discourse. As an outcome of my efforts, I have designed an interactive prototype proof of concept for a mobile application whose goal is to increase productivity in online political discourse by moderating human behavior to guarantee equal speaking time for all participants, matching real and diverse members together based on differences of belief rather than similarities. The application would use the mobile device camera and microphone to facilitate face-to-face, eye-to-eye conversations between people in the United States while protecting member identification and privacy, safeguarding against abuse.



# RATIONALE

## TECHNOLOGY PROBLEMS

As 2017 began, I left Facebook. I had used it continuously since 2008. I have yet to return. It has been strange to stand apart from a service whose membership now includes nearly 65% of the U.S. population visiting, on average, at least once per day (Pew 2017). I know I am missing a lot. I am also missing a lot of anxiety.

While my choice was partially and pragmatically motivated by the enormity of this approaching thesis work, my primary motivation was more visceral. Throughout 2016, I witnessed the wholesale takeover of Facebook by political content. News Pages, administered by “citizen journalists” posed as reliable sources pushing objectively false information and oversimplified memes for the exclusive purpose of racking up content share counts and ad views (Herrman 2016). It sounds like fantasy, but we now know that Facebook was compromised by a hostile foreign actor in the Russian Internet Research Agency (IRA) in their effort to affect the outcome of the 2016 U.S. Presidential Campaign. Those hostilities continue to this day (U.S House of Representatives 2019).

I briefly explored Twitter using the anonymous handle “alt-USDemocracy.” After just a week of use I described the experience to a colleague and user of the platform this way: it was like being in a massive group of people who are all writing frantically on Post-It notes, running up to one another, slapping them onto each other’s foreheads and quickly running away. My colleague agreed with the analogy. Dr. Kerric Harvey, a media professor at George Washington University, said with Twitter “what ought to be a conversation is just a set of Post-It notes...on the ground” (Sanders 2016). I quickly gave it up after experiencing an even greater level of anxiety than with Facebook.

These two spaces are very different in the intent of their design and use by their membership. Both platforms had become consumed with political content and discussion as a consequence of the 2016 United States federal election campaign—particularly the campaign for President. On Twitter, automated “chat bots” pose as people, tweeting and retweeting to amplify the virality of political posts (Sanders 2016). Paid users in both environments artificially inflate content interactions. Writing for *National Public Radio*, Sam Sanders points to an Oxford University study that found almost 1/5 of pro-Clinton tweets

and 1/3 of pro-Trump tweets between the first and second presidential debates were actually created by chat bots (Sanders 2016). Social media tracking companies like *Talkwalker* and *Brandwatch* found that the majority of political posts on Facebook and Twitter focused on scandal rather than policy (Sanders 2016). Not only do tweets often lack substance, but it is difficult to decipher which ones are real. People have great difficulty using Facebook and Twitter to discuss politics. It is naïve to expect them to be able to. Neither service was designed for this purpose. Facebook and Twitter allow users to make asynchronous ideological proclamations to a self-constructed, predominantly homogenous audience (Pew 2017). Over one-third of social media users have reported fatigue, stress, diminished confidence and broken relationships as a direct consequence of their online political interactions during the 2016 election campaign (Pew 2017).

How appropriate would it be for someone to walk up to anyone they are sharing a space with in the world and loudly impose upon them their own personal, political or religious beliefs? This is what happens when politics mixes with Facebook and Twitter. Flaming is an inflammatory reaction in response and opposition to triggering content or commentary. Trolling is a premeditated act of deception and provocation purely for the sake of uncivil disruption (Hmielowsky et al 2014). Curbing is an explicit attempt at suppressing the speech of another participant (Wright et al 2017). Where asynchronous text communication, media sharing, and online anonymity or pseudonymity combine, you will inevitably find these behaviors.

Despite the internet's great capacity for bringing people of diverse backgrounds and opinions together, this often does not happen. More than 66% of Facebook users and 52% of Twitter users say they primarily follow people they know personally (Pew 2016). Facebook was created to connect people who already share some kind of relationship. The news feed connects a person to content similar to previously acted upon interests and content (Sanders 2016). This tendency for people to seek out information and other people who are similar to themselves, and validate their current viewpoint, is as old as humanity itself.

Group identities can be an enemy of effective deliberation, as they can consume individual identities leading to polarization and anti-social behavior (Min 2007). Anonymity,

pseudonymity, and a lack of social cues can lead to a breakdown of deliberation online (Ng and Detenber 2005). On the other hand, these same factors can be a powerful vehicle of mobilization for marginalized groups (Newkirk 2016). Incivility has consequences. People who are uncivil are less memorable and seen as less credible (Ng and Detenber 2005). People who are actively engaged in discussing politics online enjoy diversity of belief and opinion (Stomer-Galley 2003, Ng and Detenber 2005).

## POLITICAL PROBLEMS

There is wide-ranging consensus among researchers and citizens on the behaviors that qualify as political incivility. Examples include threats of violence, hostile and aggressive language, stereotyping, and sexually inappropriate comments (Lapidot-Leffler and Barak 2007). We must be cautious when discussing what is politically civil and what is not. Defining incivility is an inherently political act, intimately tied to power and status. It is often used as a political strategy, frequently practiced by those in power from a hegemonic position of privilege to suppress marginalized voices (Harcourt 2012).

The definition of civility has changed over time. It used to mean the political practice of citizenry. Civility now means consideration, respect or courtesy toward your fellow participant while discussing politics (Harcourt 2012). If we are to understand civility to be a lack of unfairness or injury to the members of a society, then politics is inherently uncivil. Politics is about an allocation of power and resources. Its outcomes will inevitably be uncivil where all members of a society do not share an equitable influence in policy-making (Harcourt 2012). There is ample evidence that political polarization is widespread today (Duggan and Smith 2016, Soergel 2017, Willer 2016).

Dysfunction and incivility in politics causes people to not participate in politics at all (Harcourt 2012). Nearly 40% of the electorate did not participate in the 2016 election, making it the largest unified voting block in the country (Wilson 2017). For those who are either a Trump supporter or a Clinton supporter for President, over 70% of the electorate did not make your same choice when taking non-voters, third party voters, and opposition supporters together. Neither of the major party candidates won a majority of votes cast (McDonald 2016).

Had “Did Not Vote” been a candidate for president, “Did Not Vote” would have won the presidency by a 471 Electoral College vote landslide (Brilliant Maps 2016, McDonald 2016). Published on the day of the election—November 8, 2016—Gallup found that 52% of voters felt that Hillary Clinton was unfavorable as a candidate for president, the highest unfavorable rating ever documented since Gallup began tracking the measurement in 1956. It would have been the highest unfavorable rating all-time had it not been for Clinton’s opponent. Now-President Donald Trump’s unfavorable rating as a candidate was 61% (Saad 2016).

## DESIGN SOLUTIONS

University of Michigan Professor Cliff Lampe has been studying, writing and lecturing on social media for 15 years, having worked with Wikipedia, Facebook and Slashdot (Lampe 2017). There is a science of social media that has been developed over the past two decades. Relevant samples from that body of scholarship will fortify this thesis work. Lampe states that frankly, we do not know if incivility is any worse because of the Internet. Disagreement is not incivility. Not everyone is engaging in online social media to deliberate and be civil. Some people just want to promote an agenda. There has been a general unwillingness from the largest corporate and social media services to effectively moderate their populations. This stems from a misguided belief in preserving the First Amendment guarantee of free speech, but comes at the cost of having an open assembly for people to discuss political grievances in a safe, productive and equitable way (Lampe et al 6/2/15).

Professor Lampe believes that social media is good for us. It democratizes speech and has the capacity to help anyone raise social capital. Your network can see you need help shoveling snow, raising money, moving, or needing emotional support—and they can fill your need. At minimum, your network provides you with a window into experiences that are not your own. Our network provides us with “weak ties”—loose acquaintances that we would otherwise not be able to so easily keep track of within our offline social network. These can provide tremendous benefits by exposing us to experiences vastly different than our own. Social media also drastically reduces the cost of organizing and spreading information. This is helpful for marginalized groups, or those working for justice against

powerfully established interests. We need to teach social media literacy to our children instead of banning the use of these media in schools (Lampe 4/6/15).

We need to decide to use social media for good. It is possible. Our problems are fixable. Similar to offline life the requirements are support, rules, and consequences for violations which could include sanction and temporary, or even permanent, banishment.

Political discussion—whether online or face-to-face—increases political knowledge and willingness to participate in politics. Political dialogue strengthens political efficacy in a population—that is, a belief by the population that they can control the political process. When people speak to one another about complex issues, it helps them deal effectively with those issues. The ideal conditions for deliberation are voluntary participation and equal speaking opportunities (Min 2007). The presence of effective moderation increases willingness to participate in political discussion (Wise et al 2006, Min 2007). Democratic deliberation can spread information, allowing people to increase political efficacy by sharing knowledge, seeing opportunities, and serving the community's interests together—particularly when fighting within and against a politically repressive state (Rojas 2009).

## RESEARCH STATEMENT

I would argue that our not talking about politics in deep, meaningful and respectful ways—especially with people different than ourselves—makes poor political outcomes far more likely. I will offer a design solution in the form of a mobile application prototype that supports and promotes productivity in the voluntary practice of online political conversation, guaranteeing equal speaking time for real and diverse participants who may carry starkly opposing ideological viewpoints. An accessible video-enabled online space providing optimal conditions for productive political discourse has never existed before in our history. I have designed one. That design is informed from research in pursuit of answers to the following questions.

## RESEARCH QUESTIONS

- What is the balance between anonymity and true identity that can empower diverse people to make meaningful connections?
- What design elements are necessary to give citizens an online discursive experience most closely simulating face-to-face, accountable, real world deliberation?
- How can people be encouraged and supported to communicate with, and learn from, others who share different beliefs?
- What are the most effective “lurking” strategies to allow people to view the participation of other discourses, thus increasing the probability of their own participation (Ng and Detenber 2005)?
- How can people be supported and moderated toward productivity when discussing contentious political topics online?

# LITERATURE



## SOCIAL NETWORKS

What is discourse? Arizona State University professor and linguist James Paul Gee defines a discourse as the use of language and action to demonstrate and claim membership within a particular identity. Discourses are ideological and closely tied to dissemination of power and resources in society. Discourses speak through individuals (Gee 1989). Gee differentiates two methods of gaining knowledge within a discourse: acquisition and learning. Acquisition is immersion in the practice of a particular process. Learning is being taught the diffuse components that make up a particular process. Gee says, “we are better at what we acquire, but we consciously know more about what we have learned (Gee 1989, p 21).” All fully-abled human being acquires one discourse as a guarantee: speech communication with people with whom they are intimately familiar. Our primary discourse is our oral communication with other people in our community. Mastery is achieved in the balance of acquisition and learning — the balance of practice and being taught (Gee 1989).

Political discussion within the population can be thought of as a form of acquiring collective civic knowledge through the engagement of opposing discourses. The overall goal is an increased literacy across the entire population. As this relates to politics, perhaps the population is suffering from too much learning and not enough practice; too much media and not enough participation; too much being told what to think rather than practicing how to think. Learning can be selective and fortify an existing discourse. Only through participation in debate with opposing discourses can mastery and optimal literacy be acquired.

In 2001, sociologists Miller McPherson and Lynn Smith-Lovin at the University of Arizona, along with James Cook at Duke University, published their findings in the *Annual Review of Sociology*. They state that homophily is the organizing principle that people make connections into homogenous groups aligned in age, religion, education, occupation, and gender in approximately this order. Race and ethnicity are the strongest segregator of social networks (McPherson et al 2001). In 1987, Harvard University Sociologist Peter Marsden found that people generally have one-seventh the ethnic heterogeneity in their own personal network as they would have if a random selection of the same size was

taken from the general population. Caucasian people of Anglo-Saxon descent have the most racially homogenous social networks. Men usually discuss politics with other men. In the matter of close friendships, some studies place age as the strongest indication for whom a person will be friends with (McPherson et al 2001).

People assume that their friends and network connections share their beliefs, but this is often because contentious topics are not discussed. This is true despite the fact that discussing politics significantly boosts a person's political engagement within their community or organization. Human predisposition toward homophily and homogeneity in social networks is real. In 2001, McPherson, Smith-Lovin and Cook predicted that new technologies may give people the capability of creating even larger homogenous networks on many different personal dimensions (McPherson et al 2001).

## DISCOURSE CONTAINERS

Syracuse University Professor Jennifer Stromer-Galley examined the two predominant and contradictory claims in the scientific literature about online human behavior. One contends that people avoid challenge and seek out other people who share their opinions and interests. Informed from the scholarship of McPherson, Smith-Lovin and Cook, Stromer-Galley refers to this as homophily. The other is that people come online to meet other people of diverse backgrounds to engage them in discussion. She refers to this as diversity. Through in-depth interviews with participants of online political chat forums, Stromer-Galley found that people genuinely enjoy interacting with other people of differing backgrounds and opinions supporting the diversity perspective. People enjoy being challenged about their own opinions, as it requires them to think deeply about why they believe what they believe. The online community creates a unique space for diverse political discussion (Stromer-Galley 2003).

University of North Carolina-Chapel Hill Sociologist Andrew Perrin conducted 20 focus groups, reading the spoken transcripts of 137 participants in specific kinds of civic organizations: churches, labor unions, sports groups and business associations. Groups were given a topic and asked if they would like to address it or not before proceeding. The

selected topics were airport expansion, a pay-for-play scandal by a U.S. Senator, racial profiling by police, and a company's chemical spill.

Professor Perrin states that political dialogue strengthens democracy and that civic organizations are containers that nurture this practice. By deliberating, people become more effective political participants. Voluntary groups give people the opportunity to dialogue about politics. These social spaces define guidelines for normal civil behavior. The practice of political discourse grows the collective political imagination. Civic organizations are a “context” within which these discussions are able to take place (Perrin 2005).

Perrin documented participants' enjoyment from comparing their personal position to stories offered previously by other participants. He defined a “turn” as a contiguous block of speech void of any input, and that turns are required in the practice of civil discourse (Perrin 2005). Participants should start from a place of basic agreement and respect. Perrin's definition of “turns” is important. The mobile application designed in this thesis will guarantee equal turns for all participants, maximizing the potential for listening and productivity.

Scott Wright with the University of Melbourne, Todd Graham with the University of Groningen, and Daniel Jackson from Bournemouth University presented their findings at the 65<sup>th</sup> annual meeting of the *International Communication Association*. They examined an Australian online discussion forum about parenting as a “third space” for voluntary civil discussion about the Australian Federal Election in 2016. The researchers acknowledge prevalent criticisms of online political debate including a lack of equal speaking opportunities, a tendency toward avoidance to talk about “safe” subjects in “safe” places, a dominant voice suppressing the participation of others, polarization, narrowcasting, flaming, trolling and a general absence of listening (Wright et al 2017). The researchers define the practice of curbing as an attempt to suppress the speech of another participant. In any group communication forum, dominant voices will rise. Civil deliberation can only take place when all participants have an equal opportunity for participation. When equal opportunity exists, dominant communicators can actually play a positive role in facilitating discussion. All of the researchers' hypotheses of a presence of rational, civil, diverse,

sensitive political debate were present and supported in the political discussions of the Australian federal election within the online forum about parenting. Super participants were also found to be helpful in facilitating and expanding the overall discussion (Wright et al 2017). The researchers categorized the different kinds of interpersonally interactive responses in a helpful way. The category that stood out most was simply “acknowledgement.” Many participants cheered one another on, even if they did not agree with one another. These included statements of gratuity, sympathy or compliments (Wright et al 2017).

## ONLINE BEHAVIOR

By comparing online political discussions and surveying participants, Ng and Detenber found evidence that “lurking,” or observing other interpersonal interactions between people, is an important first step on the path toward participation. An online medium can be used to allow people to engage discursively who otherwise cannot in offline life. The researchers describe a hyper-personal communication model that can form between people online. Anonymity or pseudonymity can create an idealized conversation partner in the mind of a user (Ng and Detenber 2005).

Ng and Detenber found that despite anonymity, if people want to truly get to know one another personally, they will. If able to communicate, users will bypass any limitations in the online medium to do so. People are able to retain and recall civil behavior far more easily than uncivil behavior. Incivility has consequences. People who are uncivil are perceived as less credible. The Ng and Detenber’s study aligns with Stromer-Galley’s findings providing further evidence that people who actively participate in online political discussions are attracted to opposing beliefs and diversity. Ultimately, Ng and Detenber find that synchronous, or near real-time political discussions online, are found to be more persuasive and informative than asynchronous discussions (Ng and Detenber 2005).

Hmielowky and Hutchens from the University of Arizona-Tuscon and Cicchirillo from the University of Texas-Austin created a communication model for online flaming. Their basic hypothesis is that a person’s intention to flame increases the more acceptable they believe flaming behavior to be. Remember that flaming is an inflammatory reaction in

opposition toward triggering content or commentary. It is a blatantly uncivil form of communication such as explicit racism or sexism. Those who witness the use of uncivil language in discussion of politics experience a diminished perception of legitimacy and trust for mainstream political institutions and politicians (Hmielowsky et al 2014).

New participants to a discursive online political forum learn the etiquette of that forum through observation. It is how they understand normative behavior for that environment. Using contemporary text-based technologies as a baseline to test their hypotheses and communication model, Hmielowsky, Hutchens and Cicchirillo found that people seeing flaming as acceptable behavior increases the likelihood that one will participate in flaming, that discussing politics online correlates to seeing flaming as acceptable behavior, and people who discuss politics online, using asynchronous text-based tools, have greater intentions to flame (Hmielowsky et al 2014).

Research shows that experiencing negative interactions within social media can cause people to reduce their socializing in social media. Hmielowsky, Hutchens and Cicchirillo suggest that distinct methods of moderation need to be employed to combat the flame cycle present in their communication model. They propose that site administrators remove inappropriate and uncivil content and block users who consistently flame at others. Crowd-sourced moderating could be employed but researchers caution that this could enable members of the community to censor others based on ideological preferences, rather than enforcement of civility. Overall, this communication model is a warning. The Internet had such promise to be a new, positive channel for political engagement among the citizenry—but left to itself, evidence suggests that it may just be the latest battleground for uncompromising ideologues (Hmielowsky et al 2014).

Seong-Jae Min at Ohio State University set out to prove that civil deliberation, whether online or face-to-face, can increase willingness to participate in politics, increase knowledge about political issues and generally strengthen political efficacy. The ideal conditions for civil deliberation are voluntary participation, careful consideration of all viewpoints, equitable speaking opportunities, and basic respect. Min randomly selected 27 students to deliberate face-to-face, 24 students to deliberate online, and 30 students to

not deliberate at all as a control. The topic under discussion was firearm conceal-and-carry on campus. Participants were tested before and after deliberation on their knowledge of the topic, their willingness to participate in politics and their sense of political efficacy. A trained moderator enforced the ideal conditions of deliberation. The moderator framed the proceedings for the participants not as a debate, but rather a discussion with no right answers requiring basic respect for all participants and opinions. When surveyed, all of the deliberating participants—online and face-to-face—said they had equal opportunities to participate, felt respected by their colleagues, and enjoyed the experience. Their knowledge of the topic increased significantly. Their efficacy scores increased. Willingness to participate in politics only increased in the face-to-face group (Min 2007).

Online and face-to-face political deliberation has a positive impact and confirmed Min's hypotheses, concluding that online deliberation can be incredibly valuable due to its cost-effectiveness and ability to include a larger number of diverse participants. Those participating in the study were willing to offer candid and direct opinions about contentious topics at a greater rate while speaking face-to-face (Min 2007).

## ANONYMITY v. PSEUDONYMITY v. IDENTIFICATION

Ian Rowe at the University of Kent in Canterbury, England tested whether user comments on *The Washington Post* website or *The Washington Post* Facebook page were more uncivil. He specifically examined a similar audience discussing the same stories with distinctly different levels of identification or anonymity. Facebook users were semi-identified. *Washington Post* website commenters were anonymous. As a solution to the incivility that anonymity breeds in user-comment sections, many media outlets have disabled these features from their websites altogether and instead have turned to Facebook where participants are identifiable. Facebook began offering a plug-in for websites in 2011 that allows for Facebook-identified participants to leave comments on websites by using their Facebook profile. Research suggests that people are incentivized to be civil when they are identifiable online due to the risk of consequences from being

uncivil such as harassment, stalking or bullying. People are up to three times as likely to be civil when they are identifiable (Rowe 2015).

Rowe proved his hypothesis correct in finding that anonymous website commentary was far more uncivil than identified Facebook commentary. He also found stereotyping to be the most common form of incivility in anonymous website comments. Nearly half of all uncivil, anonymous website comments were directed specifically toward another participant—i.e. were interpersonal. Only a quarter of uncivil comments on Facebook were interpersonal (Rowe 2015).

Maia and Rezende of the Federal University of Minas Gerais-Brazil set out to explore conditions that might create mutual respect for online deliberation participants within various digital settings. They acknowledge the body of literature that demonstrates how anonymity can lead to flaming and how forms of moderation can enforce behavioral norms that can create a civil condition for participants. They used a definition for civility from UIC Professor Zizi Papacharissi as an interpersonal interaction that “strengthens our relationship with each other and our ties to democracy” (Papacharissi 2004, p. 263). They also cite Jürgen Habermas in describing the purpose of deliberation as participants finding “discursive will-formation” together (Habermas 1995, 1996). It is important for a minimum declaration of respect to be acknowledged by both parties before entering into deliberation. The researchers state how important justification and reciprocity are to civil deliberation; that is, explanation and evidence for claims and a willingness to listen (Maia and Rezende 2016).

Maia and Rezende evaluated participant comments on YouTube, Blogs and Facebook about a particular political scandal in Brazil to see which digital platform created a condition of greatest disrespect among its participants. A Brazilian Congressman made explicitly racist remarks when an interviewer asked his opinion about one of his children being in a hypothetical interracial relationship. Where personal identification was greatest in Facebook and Blog use, disrespect was minimized. Where anonymity was greatest in YouTube and one of the other assessed blogs, disrespect was maximized. They rated the respect level of user comments (Maia and Rezende 2016).

An interesting outcome of the study was a positive relationship between the use of foul language and the use of justification for claims. People who present evidence for their statements swear more than others, on social media, in Brazil. About 56% of the comments demonstrated reciprocity—meaning, comments that were a response or explicit answer to a preceding comment. Levels of reciprocity were lowest in the most anonymous condition, particularly so within YouTube. Facebook comments carried the lowest levels of justification, meaning that personally identifiable participants in homogenous groups do not feel the need to back up their claims with evidence (Maia and Rezende 2016).

This is an important study. It is rare in that it assesses how the same political issue is discussed by different participants in different digital environments to see how levels of respect change in the discourse from one environment to the next. It is clear that identification can minimize flaming. In this thesis work, the ability of participants to look at one another during online political discourse will greatly reduce flaming behaviors from the rates seen in text-based communication forums.

Lapidot-Lefler and Barak at the University of Haifa in Israel examined three common contributors to uncivil behavior online described as “toxic online disinhibition” whose causes are a lack of eye-contact, anonymity and invisibility. By disinhibition, they are referring to negative anti-social communicative behaviors occurring online that would likely not occur under similar communicative circumstances in offline life. Examples are threats of violence, hostile and aggressive language, the use of profanity and sexually inappropriate comments (Lapidot-Lefler and Barak 2007).

These are all instances of online flaming behavior. Anonymity is customarily cited as the cause for negative online behaviors. Here, Lapidot-Lefler and Barak make a unique distinction. They consider anonymity to be made up of two distinct parts: namelessness and unidentifiability. A person in a face-to-face encounter may be identifiable by sight, yet may choose never to reveal their name or any other substantive attributes of personal identification about themselves. On the other hand, someone may be invisible by sight but



have their name, physical location, gender, and date of birth publicly viewable in an online profile (Lapidot-Lefler and Barak 2007).

There usually is some measure of control by the online user over their level of identification. As anonymity increases, generally so does online disinhibition and uncivil behaviors such as stereotyping or threats of violence. Research has shown that the flaming effect is far greater for text-based online communication compared to face-to-face offline communication. In offline communication, eye-contact has a tremendous effect in regulating emotions of confidence, trust, confusion, embarrassment and honesty. Eye contact and gaze allow for expressions of intimacy and regulation of non-verbal communication and interaction (Lapidot-Lefler and Barak 2007).

This is the first study of its kind concentrating specifically on eye-contact's effect on online disinhibition. The researchers hypothesized that online disinhibition would increase the most from anonymity followed by invisibility and the least by a lack of eye-contact. Lapidot-Lefler and Barak had 71 women and 71 men debate a dilemma and come up with a solution in one of three conditions. The dilemma was a fictional scenario where only one of the two participants could get access to a "life-saving drug" needed by both of the participants to survive. The participants were either anonymous—meaning no personally identifiable information was given to their partner—or non-anonymous, meaning identifiable by name, age, gender, etc. Visibility meant that a side profile of the person could be seen via webcam. An absence of the web camera created the invisibility condition. Eye-contact was created through use of an additional web camera facing straight into the participant's eyes (Lapidot-Lefler and Barak 2007).

Lapidot-Lefler and Barak's hypothesis of ranked order for the conditions was disproven. Eye-contact was found to be the most significant factor in preventing online disinhibition, even for anonymous communicators. When surveyed following their interaction, participants in the conditions without eye contact—whether anonymous or not—self-reported their own flaming and threat behaviors at significantly higher rates. Lack of eye-contact is the most important factor in contributing to the online disinhibition effect, not anonymity (Lapidot-Lefler and Barak 2007).

This led Lapidot-Lefler and Barak to make an important distinction when considering a proper definition for anonymity as it relates to online communication:

“The present findings suggest that one can think of anonymity as an assemblage of different levels of online unidentifiability, in which non-disclosure of personal details, invisibility, and absence of eye-contact compose the most significant assemblage; these components appear to combine in different degrees, thus yielding a variety of ‘anonymities.’

The new concept we refer to—online sense of unidentifiability—can be understood as spanning a range, in which three major factors are considered: one end of this range is characterized by a lack of personal identification (i.e. anonymity), lack of visibility, and lack of eye-contact; the other end, by disclosure of personal data, visibility and eye-contact.

Even though the lack of eye-contact may be a virtue of online communication, in that people are willing to use online communication because they feel less inhibited, less formal, less embarrassed, and more willing to speak their minds because they do not have to look or avoid looking someone in the eye, our findings suggest that the toxic outcome of a lack of eye-contact might need to be considered when initiating interpersonal interaction in cyberspace. In this context, the research findings imply that allowing webcams, which enable eye-contact, might have significant impact on reducing toxic disinhibition and its adverse expressions in various online environments...”

– Lapidot-Lefler and Barak, 2012 (p. 440-441)

People can be civil to one another if they look each other in the eye while having a heated discussion. A blend of anonymity and identifiability can be found to maximize and balance personal freedom and accountability. These ideas inform the fundamental design choices in the mobile application prototype that been produced as the outcome of this thesis work.

## SOCIAL MEDIA

A comprehensive review of the use of social media and online political discourse must include an assessment of contemporary, popular technologies that are frequently used as platforms for political activism. These include 4chan, Facebook, Twitter, Slashdot, Metafilter and Reddit to name only a few.

Dale Beran wrote the article *4chan: The Skeleton Key to the Rise of Trump*. Having been a member since 4chan’s inception, Beran lays out a comprehensive history of 4chan.org and its unique evolution up to the present day. The user interface of this text-

based threaded message site is confusing, requiring users to click “reply” in order to read messages. Anyone can post without creating an account, with each post carrying the default name “Anonymous” leading users to refer to themselves simply as “Anon” (Beran 2017). What began as an online bulletin dedicated to Japanese anime and video games started by a 15-year-old grew into the birthplace of memes, Pepe the Frog and a platform for Richard Spencer, Milo Yiannopoulos, the Men’s Rights Movement and ultra-nationalist “Alt-Right” white power activists (Beran 2017).

4chan’s first political action was protesting the Church of Scientology in 2008. Hundreds of Anons showed up in Time Square wearing Guy Fawkes masks. 4chan users are primarily young men who self-identify as single, unemployed or underemployed, living with parents and without girlfriends. They use the term *hikikomori* to refer to themselves. It is a Japanese word meaning “pulling inward, or being confined”—a culture most users were obsessed with in the site’s earliest days (Beran 2017).

Swarms of 4chan users would flood into other online spaces to overwhelm comment fields causing chaos and confusion. Generally libertarian political values turned into nihilism and outright misogyny during the “Gamergate” affair—a catalyzing event sprung from a user’s ex-girlfriend allegedly cheating on him who also happened to be a video game developer. The 4chan community escalated this private altercation into a global conspiracy theory to feminize video games. Users viciously attacked female game developers and critics online. Milo Yiannopoulos ascended as the principal 4chan user advocate, leading to a position as “Technology Editor” for *Breitbart News*. Milo made the 4chan user believe his lifestyle was one of choice and empowerment rather than shame. As the 2016 campaign began, this pool of nihilists poured full support into Donald Trump’s presidency seeing him as their champion of “loserdom” and “deplorability” (Beran 2017).

This is a case study for how absolute anonymity leads to deindividuation that can produce terrible outcomes. From roughly the beginning of the Obama presidency through the “Occupy Wall Street” movement, 4chan.org demonstrated through their early activism a great potential to be a major disruptive force for the Left. This focus deviated toward destructive ends through “Gamergate” around 2014 (Beran 2017). The “Anonymous”

symbolism is powerful. If no one is the face of a movement, then everyone can be the face of a movement. The absence of individual identity leaves only group identity where lowest common denominator behavior takes over.

Writing in the *New York Times Magazine*, John Herrman explored Facebook's evolution in becoming America's largest centralized online news source. From a total population of around 320 million Americans, some 200 million use Facebook each month. One of the drivers of this growth are partisan advocacy and news pages made specifically for Facebook. They have followers in the thousands and hundreds of thousands (Herrman 2016). These Facebook pages are privately administered. They carry names you may be familiar with like *American News*, *Occupy Democrats*, *US Chronicle* and *Being Liberal*. They write original content, produce memes and other visual content, and promote websites and web pages that live outside of Facebook—often generating advertisement revenue for the Facebook page owner. A page makes the user feel like it is a personal member of their network. If engagement can be traditionally thought of as deep reading or brand loyalty, this is no longer the point. These pages create content specifically to be shared as quickly and as many times as possible. Everything else is secondary. Political pages create virtual lawn signs for people to quickly erect in other people's news feeds. A user's association with a page will draw increasingly similar content toward that user. Facebook states very clearly that the news feed is designed to “show people the stories most relevant to them” and to prioritize content “so that what's most important to each person shows up highest in their news feed” almost assuring that minimal content will be presented that challenges a user's current worldview (Herrman 2016).

During the 2016 campaign for president, one major anonymous owner/operator of a Facebook news page titled “Make America Great” compared his followers to a swarm of feeding sharks or a torch-wielding mob. Demonstrating its effective level of deception, he stated that many people falsely believed the page to be an official extension of the Trump presidential campaign. Followers would often contact the page to see if they could communicate directly with the candidate, often simply asking for money (Herrman 2016).

Writing for the *Chicago Tribune*, Matt Lindner conducted a series of interviews with general Facebook users following the 2016 presidential campaign. One Chicagoan recounted unfriending a minimum of 10 people during the campaign. Another woman recalled unfriending both her sister-in-law and her brother. The article states that with Facebook's increasing ubiquity, it is quickly becoming the central place all people go to interact with other people. Political interaction is just one type of interaction (Lindner 2016).

One man said he unfriended people in his network due to their inability to be civil. Facebook has stated that between March 23, 2015 and November 1, 2016, 10 billion shares, likes, comments and posts were made by users as a result of the 2016 election. On election day, 716.3 million shares, likes, comments and posts related to the election were generated by 115.3 million people worldwide. No data is available from Facebook on how many people were unfriended due to the election. People need to remember that they consensually interact with these platforms. No one makes anyone else log in to Facebook. It is a choice everyone makes for themselves (Lindner 2016).

The article demonstrates the ubiquity of Facebook and its use. Its massive scale helps form a mental model. Facebook is like a village. People live and interact with one another in the village. Not everyone wants their interactions to be dominated by political topics. This is as true in offline life as it is in Facebook. In offline life, we usually think there are specific spaces dedicated to political interaction. Perhaps Facebook users are seeking the same thing and not finding it in their village.

Writing for *Politico*, Darren Samuelsohn discusses fractured Facebook relationships as a consequence of people's political activism and behavior during the 2016 election campaign. The original article contained an actual Facebook exchange between an uncle and nephew that resulted in the latter unfollowing the former. The current online publication no longer contains this exchange (Samuelsohn 2016). By late August, 2016, Facebook stated that over 100 million Americans had shared, liked, commented or posted some 4 billion times about the campaign. The platform has not produced statistics for how many people have been unfollowed, unfriended or blocked during this time. Nearly two-thirds of the country now use Facebook. This is a 20% increase since the 2012

presidential election. Americans are more ideologically segregated in offline spaces than ever before. Samuelsohn points to Pew Research Center figures showing that 1/3 of Trump supporters in their sample had no friends supporting Clinton, and almost 50% of Clinton supporters had no friends supporting Trump. Another Pew Research Center report from 2012 showed that 18% of social media users unfollowed, unfriended or blocked someone for political reasons during that election campaign. Compared to conservatives or moderates, liberals were twice as likely to take these actions (Samuelsohn 2016).

“Thinking we’re only one signature away from ending the war in Iraq.” This is a tweet from Barack Obama in April 2007. He is widely considered to be the first successful candidate to make use of Twitter in a presidential campaign. Twitter was founded by Jack Dorsey on March 21, 2006. It is a platform used for no-cost information sharing. The platform allows for direct 280-character text-based discursive relationships to form between people. It has given a voice to countless marginalized groups (Newkirk II 2016).

Twitter was the media engine of the Tea Party. The #TCOT (Top Conservatives on Twitter) hashtag built a 3,500-member list ready to run when Rick Santelli took to the Chicago Mercantile Exchange floor to give his “Chicago Tea Party” rant on February 19, officially starting the movement. Twitter has ushered in the concept of the general public having direct discursive access to politicians. The “Occupy Wall Street” movement of late 2011 and the “Black Lives Matter” movement have used Twitter as their primary media vehicle (Newkirk II 2016). Twitter is the start of a new paradigm of direct discursive relationships between politicians and their constituencies. Soon the days of snail-mail form letter responses and perhaps even in-person town hall meetings will be things of the past. Technology is being used to connect the public with power directly. President Trump’s use of Twitter as a principal method of publication for official White House statements is just one example.

In recent years, the *Pew Research Center* has done incredible work assessing our contemporary social media landscape. Seven of every ten Americans use social media. When Pew began tracking adoption in 2005, 5% used these platforms. Today, it is 69%. There has been a surge in use in adults 50 to 64 years of age between 2014 and 2016.

Nearly 65% of the nation uses Facebook—twice again as much as the next-used platform. Twitter and Instagram both claim about 25% of the American population as their users. Three-fourths of Facebook users, and half of Instagram users, visit each platform an average of once per day (Pew 2017).

Released on October 25, 2016 during the height of the 2016 Presidential campaign, *Pew Research Center* published a landmark study surveying over 4,500 Twitter and Facebook users. Pew published comparable studies during the 2012 Presidential campaign and the 2014 mid-term election. The researchers describe the contemporary political landscape as one dominated by partisan polarization. In these relatively new social spaces, people continually encounter political statements and content they might find offensive or disagreeable—often times without their consent, meaning no effort has been made to seek the content out. This presents challenges in a networked environment of family, friends, personal and professional acquaintances and personally unknown public figures (Duggan and Smith 2016).

About 37%, or over one-third of social media users, say they are worn out from their encounters with political content, and over half say they are frustrated and stressed by their political encounters with people they disagree with. About half of users believe that the political conversations they witness on Twitter and Facebook are less civil, less respectful and angrier than conversations they witness in offline spaces (Duggan and Smith 2016).

Almost 83% of social media users say they outright ignore political commentary posted by members of their network. Some 31% have taken steps to curate their feeds as not to see political content they find offensive. Another 27% have either unfriended or blocked another user outright for this same reason. Levels of frustration and dissatisfaction in the political user experience of Facebook and Twitter is shared almost uniformly between partisan Republicans and Democrats (Duggan and Smith 2016).

Almost 66% of Facebook users say they primarily follow people they know personally. Some 52% of Twitter users say the same. While younger Americans rely more heavily on social media as a news source, older Americans make far greater use of the platforms for actively commenting on, or discussing, political issues. Despite Twitter users

being much more politically active and interested in current events, users in both spaces are equally likely to encounter political content and discussion (Duggan and Smith 2016).

By nearly a two-to-one margin, Twitter and Facebook users have resignation about their experience with the current volume of political content in their feed. Some 64% of users feel that people do not speak their minds due to self-censorship in the face of personal and professional relationships. About 25% of social media users follow some kind of political candidate or political figure. Only 3% follow a political candidate or figure that they do not support. This is sometimes referred to as “hate-following” (Duggan and Smith 2016).

## MODERATION

So how do we fix all of this? How can we do it better? University of Michigan Professor Cliff Lampe points to slashdot.org, metafilter.com and some sections of Reddit as models for good online moderation. In social media, we experience context collapse. More in-group and out-group relationships form, the formation of those relationships is easier, and nuance in communication can be lost. Communication online is less ephemeral. Everything is archived and recalled (Lampe 6/2/15).

Lampe submits a thought experiment. He asks us to imagine that the Internet is the cause for a rise in incivility within the population. It is widely believed that anonymity leads to deindividuation which can cause anti-social behavior. Negative behavior can be seen as normal in the absence of established, normative positive behavior. Text-based environments lack social cues. People communicating in these environments have no perception of a person’s reaction to what they are saying. There is no body language or eye-contact which are incredibly valuable methods of human communication. There is a lack of social consequences; a lack of accountability (Lampe 6/2/15).

Reddit’s “Serious Discussion for Serious Folks” /r/SRSDiscussion/ forum has a huge list of rules. Users must take a survey to assess their civility before they can start posting. Slashdot has a crowd-sourced rating system that suppresses commentary that violates the norms for behavior within that community. They have developed a culture of accountability and civility over a number of years (Lampe 6/2/15).



Professors Wise and Hamman with the University of Missouri-Columbia, and Professor Thorson with the University of Wisconsin-Madison, had students use two different versions of a fictitious website developed for their study titled *YouthPoliticsAmerica*. One version of the site explicitly stated that the user-generated content on the site was moderated. This moderation came in the form of editor reviews, a rating for every post, an unrated label for new posts, methods for reporting abuse, and one post designated as the editor's pick. The alternate version carried no messaging or methods of moderation. The hypothesis that the presence of moderation would increase a person's intent to participate in political discussion online was supported as true (Wise et al 2006).

Wise, Hamman and Thorson's second experiment had students use a fictitious replica of *RateMyProfessor.com* with differing sets of user posts carrying varying time stamps demonstrating different rates of interpersonal interactivity and speed of response. The hypothesis that the presence of interpersonally interactive comments would increase people's intent to participate in political discussion online was supported as true (Wise et al 2006).

Regardless of the state of anonymity or identification, moderation becomes essential for any online community of significant scale. The idea of a required moderating force to encourage civility in online communication has been at the foundation of this thesis project from inception. Wise, Hamman and Thorson's study validates that requirement, and challenges whether the only moderating force should be the functionality of the platform and the participating community. Ultimately, the choice to sanction or banish users who violate behavioral guidelines will have to be made by real people.

Cliff Lampe, along with Paul Zube at Michigan State University, and Jusil Lee, Chul Hyun Park and Erik Johnston, all at Arizona State University, examined the popular text-based discussion website *Slashdot.org* to demonstrate how effective moderation can create a civil space for online political discussion. They begin by acknowledging that political discussion is particularly difficult when attempting to establish civility as participants come to the table with pre-existing, fundamental differences in values and

issue priorities. The Internet's low barrier to entry and lack of social cues can increase negative behaviors known as flaming or trolling, which discourage participation from those who are looking for genuine, productive conversation. The authors demonstrate in this paper that large-scale, productive participation and a reduction in information overload is possible through the use of effective distributed moderation systems. Increased transparency, participation, engagement and direct discursive relationships between members of authority and their constituency is possible through the adoption of advanced communication technologies. Methods of rating and moderating communication are critical to facilitate this (Lampe et al 2014).

The researchers define "virtual public spheres" as areas where political discussion is the purpose and goal of the space that has been created, rather than just a by-product of it. Communication overload is a huge problem for text-based communication forums online. Communication overload leads to diminished participation, whether the discussion is productive or not. One measure of productivity is a participant's ability to stay on topic in their remarks. Face-to-face conversation usually enables the proper social cues to bring about productive discourse. This condition is lost in text-based online communication (Lampe et al 2014).

Lampe et al. define crowdsourcing as the ability social media provides in lowering costs to allow people to contribute and coordinate collectively in filling some defined need. Feedback for content is commonly crowdsourced from online audiences in the form of some kind of rating system. Examples are likes, grades or star ratings, up/down voting that literally raises or lowers the visibility of content, or thumbs up/thumbs down signifiers (Lampe et al 2014).

Slashdot has been using distributed moderation through moderator users since 1997. Between 2003 and 2004, the researchers collected political discussions during the run up to the 2004 United States federal election. Slashdot's moderation system is sophisticated. Users are allowed to identify themselves or remain anonymous. Anonymous users are labeled as "Anonymous Cowards" and their posts carry a default rating lower than those posted by identifiable users, meaning anonymous posts are less visible. Users

manage “karma scores” by reading and rating posts, creating posts, and achieving positive ratings from posts. Once the karma score reaches a certain level, a user can become an official moderator for the community. Moderators have amplified powers for rating posts and distributing karma points. There is also a meta-moderation system to moderate the moderators (Lampe et al 2014).

In 2004, for the first time, Slashdot created a specific area dedicated to political discussion. The researchers focused on this area. New posts by those with good karma naturally carry a higher default rating and are more likely to be viewed and rated by moderators and meta-moderators. One disadvantage of this moderation model is posts by newcomers are systematically less visible than posts by highly engaged, long-time members carrying high karma ratings. Slashdot’s user base is not representative of the general U.S. population. Their membership is far more participatory in conversation threads than most websites. Almost all the users are male, highly educated, between the ages of 25 and 34, and use many different online forums for communication (Lampe et al 2014).

Lampe et al. point to Slashdot as an example for how moderation systems are effective in creating productive virtual public spheres for political conversation. They state that “the potential to have a sustained, civil conversation might be made possible through the thoughtful design of a technology enabled deliberation space” (Lampe et al p. 325). A sustainable, massively large, civil, virtual public sphere is possible through the use of effective moderation. This is great evidence that the proof of concept proposed in this thesis for a place dedicated to large-scale online political discussion is possible through the right design choices. More important than the functionality, the effective virtual public sphere is created by establishing what is good behavior and bad behavior by employing incentives and methods of sanction to promote productive, positive behaviors within population (Lampe et al 2014).

Professor Cliff Lampe states that about 90% of the problems are caused by about a half a percent of the users. Just like in offline life, rules for positive behavior need to be established, communicated and enforced. Negative behaviors should be suppressed. Violators should be sanctioned or banished. People need to be taught how to disagree

successfully, respectfully and productively. The problem is not the Internet. The problem is us. The tools need to be better designed. They can be. We can choose to use them for good (Lampe 6/2/15).

# DISCOVERY

## AUDIENCE

I intend for this application to be used primarily by American adults ages 18 – 35. This age range encompasses the primary user group of the most popular social media platforms in the market today (Pew 2017). I would expect that the more politically engaged and politically active a person is, the more likely they would be to adopt and use this product. I have attempted to design the application to be neutral and welcoming to people of diverse ages, religions, sexual orientations, genders, ethnicities, levels of education and professional attainment, and technical literacy. Ultimately, I would like all American adults to use the product and gain value from it. To gain insight into my potential audience, and their personas, I began the process of development by reaching out to people directly.

## SURVEY

I wanted to begin discovery through direct input from users. I believed the process of building the member profile to be the most labor intensive within the application, and thus potentially one of the most vulnerable points of application abandonment. I created a survey with Google Forms to simulate the experience of building the member profile within the application. I also saw this as an opportunity to directly gauge a general level of interest in the project from a diverse audience.

Throughout my proposal for this thesis, and in its earliest stages of development, I was very closely tied to the concept of civility. As such, the name of my survey was “CIVILITY MOBILE APPLICATION.” I sent the survey out to a broad range of contacts in my personal, academic and professional network. 110 participants responded and completed the full set of questions. The member profile content of the survey was as follows:

Do you vote?	What state or district do you live and vote in?
Yes	<i>[drop down of all 50 states and the District of Columbia]</i>
No	

How would you describe your political views?	What political party do you tend to support?
Very Conservative	Libertarian
Conservative	Republican
Centrist	Independent (none)
Liberal	Democrat
Very Liberal	Green
Other... <i>[free text field]</i>	Other... <i>[free text field]</i>
How would you best describe the area where you live?	In what year were you born?
Rural	<i>[free text field]</i>
Exurban (commuter town)	
Suburban (urban adjacent)	
Urban	
Other... <i>[free text field]</i>	
What is your highest level of completed education?	How would you best describe what you do for a living?
Some High School	Student
High School Graduate or GED	White Collar (employed for wages)
Some College	Blue Collar (employed for wages)
Trade/technical/vocational training	Self-Employed
Associate's Degree	Military
Bachelor's Degree	Government: Federal, State or Local
Master's Degree	Homemaker
Doctoral Degree	Retired
	Unable to work
	Unemployed
What is your level of annual income?	How would you best describe your religious beliefs?
Less than \$50,000	Christian
\$50,001 - \$100,000	Mormon
\$100,001 - \$250,000	Catholic
\$250,001+	Jewish
I prefer not to answer	Muslim
	Hindu
	Buddhist
	Unaffiliated
	I prefer not to answer
	Other... <i>[free text field]</i>

How would you best describe your race?	How would you best describe your gender?
Hispanic, Latino or Spanish origin	Woman
Native American	Man
Asian	I prefer not to answer
Black / African-American	Other... <i>[free text field]</i>
Native Hawaiian / Other Pacific Islander	
White	
I prefer not to answer	
Other... <i>[free text field]</i>	

Amongst other resources, I sought out direction from the Human Rights Campaign guidelines for building optimally inclusive surveys (HRC 2016, Rosenberg 2017). I concentrated these questions on the major identity indicators that human beings use to build predominantly homogenous social networks (McPherson et al 2001). Sexuality was a major identity indicator that I inadvertently excluded from my survey altogether. This was pointed out to me by some of my participants. I included it in the actual profile build experience within the prototype.

Before distributing the survey, I hypothesized, with some anxiety, that if given an opportunity to either not answer these questions, or to select responses such as *I prefer not to answer* or a free text field, that most participants would take those opportunities. My fear was that without fixed inputs in building the member profiles, it would introduce complications away from a fixed set of input data feeding an algorithm to match diverse members together based on differences in their member profiles, rather than similarities. I could not have been more wrong. People were very willing to share the information that was asked of them, primarily using the multiple-choice, fixed responses they were provided with.

On one hand, I was surprised by the diversity I was able to sample through the responses I received. My participants live and vote in seventeen different states and the District of Columbia. 95.5% of them were active voters. About a quarter of the respondents live and vote in a rural area. The greatest diversity was seen in participant religious beliefs. Split across 23 different categories, this question saw the text field



response of “Other...” used more than any other question. Out of this spectrum, the dominant categories were 28.4% Christian, 11.9% Catholic, and a little over 45% declaring some version of non-religious belief. The birth years of participants spanned a fifty-year time period, from 1943 up to 1993. 63% of the respondents were women.

On the other hand, some of the responses not only confirmed the phenomenon of homophily, but particularly its presence in my own social network. 86.2% of the participants were white. 61.8% were white collar workers. 88 of the 110 respondents had either a Bachelor’s, Master’s or Doctoral degree. 81 participants earned an annual salary over \$50,000 per year, with some 33.6% of the total respondents making over \$100,000 per year. Only 18.2% of my participants expressed conservative political ideology, with just 17.3% primarily supporting Republican political candidates when voting.

Within its own dedicated section in the survey, I also asked participants to rank their level of comfort with having their responses visible to strangers for the purposes of engaging them in a political conversation. To do this, I listed all of the questions the participants just answered, and asked them to rank each one on a scale from 1 to 5 with 5 meaning they are absolutely comfortable with having their responses shared with strangers, and 1 meaning they are not at all comfortable with having those responses shared. With annual income as the only outlying exception, wide majorities were comfortable with scores of 3, 4 or 5 applied to all of the questions. 42.7% marked the question about annual income with a discomfort level of either a 2 or a 1.

In the final section of the survey, I asked participants if they would be willing to consent to further participation in the project and provide me with their contact information. In order for this prototype to be successful, I was going to need member-generated content to demonstrate the full concept. I was overwhelmed by the positive response.

I drew five main conclusions from the survey responses I received. 1) People showed enthusiasm for the concept. I received 80 responses with consent for further participation in the project, either in the form of using survey responses in prototype member profiles, or producing further member generated content for use in the prototype.

2) People are very forthcoming in providing this kind of information if they are given assurance that their identity will be protected. 3) Overwhelmingly, people are willing to use the multiple-choice responses they are provided in a questionnaire of this kind, but do need some mechanism for providing feedback to an administrator on the rare occasion when the choices provided are not inclusive of marginal beliefs or identities. 4) I will have some real limitations in adequately showing what a real, large, diverse member population could look due to the very small sample size of my own social network contacts, and the homophily that is present within that social network. 5) The participants who provided consent in allowing me to make use of their survey responses as member profiles in the production of the application prototype effectively became valuable user personas helping to guide me in the design and production process.

## EXPERT INTERVIEW

After sending out the survey, I wanted to interview someone who I consider to be an experienced practitioner, both in political conversation and in moderating the political conversations of others. I spoke with my colleague Danna Pope, political activist, organizer, and holder of a Master of Arts degree in Peacebuilding and Conflict Transformation from the School for International Training Graduate Institute in Brattleboro, Vermont. Danna and I belonged to the same non-denominational, non-theistic congregation. She was one of the few survey participants who abandoned the multiple-choice answers. She gave me feedback about the survey, specifically how to make it more inclusive along with guidance to include sexual identity which was missing from the original questionnaire. Danna's self-described political views are 'Anarchocommunist.'

I explained the concept of my mobile application to Danna, and provided her with an overview of a first iteration user journey map I created to show the planned functionality. I had previously participated in effectively moderated group discussions at our shared congregation, with individuals being given equal, two-minute turns to speak about selected topics with a live moderator holding everyone accountable. Danna has experience facilitating and moderating such discussions.

Danna gave me negative feedback about using the word ‘civility’ in the name of the application. She said that these kinds of conversations can often be painful, with people sharing their trauma, feelings and past experiences with unequal access to resources and power. It is her belief that civility can mean oppression, conformity and a silencing of dissenting speech.

The most difficult feedback Danna provided was a candid opinion that she herself would not use an application like this. Despite being the opinion of just one person, this was difficult to hear. The reason for this, she explained, is that she does not believe that all participants should be given equal speaking time to discuss all topics, equally. Depending on the topic, some people just need to listen. Specifically, she said that white, heterosexual, cisgender men take up enough space in the world already. As a member of that demographic group, I found this part of the discussion challenging. I did not disagree or protest her position. I simply stated that I wanted to achieve maximum inclusivity in my design, welcoming the participation of the broadest audience possible. I am glad I spoke with Danna, and acted on her feedback about the application’s name.

## HUERISTICS EVALUATION & COMPETITIVE RESEARCH

Before I began designing the user interface for the mobile application, I felt it was important to find tools used in the market today that most-closely mirror the kind of member matching and member discursive experience I was hoping to create. Finding members to make new connections is a core capability in social networking services. Examples include Facebook, Twitter, LinkedIn and Instagram. I focused my research on applications that match strangers together.

A bit to my wife’s chagrin, I downloaded the popular dating applications “Bumble” and “Match.” I built member profiles, making note of the navigation structures and time-on-task necessary to fill out the information I was asked for. Both services emphasized the video and photo content provided by members for the purpose of matching. These services acted as a good model for information architecture and member finding to inform the design of my application.

I also searched extensively for a product in the market that might already be filling the space I hoped my own application might occupy. The closest thing I was able to find is a live video mobile application called “2UP.” I downloaded it, created a member profile, and engaged in conversation with other members. 2UP is marketed as an application for video battles. It is not focused exclusively on politics. Members debate topics relating to sports, religion, video games, popular culture, and any other area of interest they can think of. A lot of political debate happens on 2UP. Members take positions by writing statements of belief, allowing other members to challenge those beliefs either in the form of text comments or as a request to have a video battle about the belief.

2UP is deliberately adversarial, unmoderated and filled with asynchronous text-based communication between members. I would go further to say that its primary mode of member-to-member communication is traditional, asynchronous, text comment threads. Members can reward one another with hearts. There is a leaderboard for members who have earned the most hearts. Live video battles between two members are publicly viewable by the community in real-time. The audience can also comment into a threaded message while observing a conversation between two other members. The video battles I participated in, and witnessed, all had cross-talk between the members, and were distracted by audience participation. There is also an absence of direct feedback from the users to the application, which causes users to talk about things they would like to see improved in the application either as text positions within their profile or as points of discussion when speaking with another member about a different subject entirely.

All things considered, it was pretty thrilling getting into live “2UP” video battles with strangers. I experienced a sort of kinship with other members in the application, and had only positive interactions with people despite their differences of belief. It gave me inspiration to create an even better experience — dedicated to political speech, deliberately diverse in its membership, moderated to achieve equality of participation, and absent the heuristic pitfalls that deter productivity in political discourse.

# DESIGN

## USER JOURNEY MAP

I thought it best to begin the design process by mapping out the journey a user might take through the application. This would begin to give me the best sense of scope for what I hoped to design and build. I also know from my own career experience as the director of a product team that visualizing a concept is the best way to achieve understanding and get immediate feedback from stakeholders. I used the free application draw.io to perform the build. Through this process, and with feedback from my graduate program cohort, I identified the major task areas within the application:

- Onboarding and verification of identity
- Exploring the application and its membership while in a hidden state
- Building the member profile
- Viewing, and interacting with, other members while in a visible state
- Having a conversation with another member

## WIREFRAMES

Once an initial visual framework existed for the user journey — demonstrating the major sections that would need to be created along with their basic purpose — I began sketching screen concepts using paper and pencil. This step in my process allowed me to create user interface concepts very quickly that could be easily modified to experiment with different treatments of navigation, communication with users, and wayfinding through the five core tasks within the application. While ideating on my own, and gaining peer feedback, I was able to make quick notes directly on the designs themselves.

To build digital wireframes as a guide for developing the interactive prototype, I used the Balsamiq Cloud application. This allowed me to drag and drop rudimentary navigation controls and page elements into the user interface design, allowing me to begin thinking about the best use of screen real estate and organization of information architecture.

I found that sketching out screens, and mocking up crude, digital wireframes allowed me to start getting the most actionable, clear feedback from my thesis committee, peers and program cohort. I think I was naïve in my belief that anyone could truly understand the concept in the absence of these kinds of artifacts. Looking back, I wish I had begun producing these as early as the initial proposal for the thesis. Well beyond the literature research in the proposal, and the user journey map, these wireframe artifacts were the most successful at conveying the member experience I was hoping to design and deliver within the application.

These artifacts also began to bring into focus the volume of member-generated content I would need to effectively demonstrate the concept. I knew that the application's advanced functionality, primary focus on member-generated video and image content, and member-to-member live video-enabled synchronous communication, would pose unique challenges for conducting effective user research absent the resources to build effective simulations for each of these components. Simulating the member profile building experience through the use of a survey was one solution to this problem. Soliciting video statements of political belief along with selfie profile images self-produced by real people in my network was yet another.

## MEMBER-GENERATED CONTENT

Before reaching out to my survey participants and members of my network to ask them to create video and image content for my prototype, I thought it best to start by experiencing the process myself. Not only would this give me empathy for what I was asking other people to do, but it would also give me a sense of viability for the request.

Originally, I thought that each member video statement of political belief should be under thirty seconds. When I recorded my own sample, I did my best to adhere to this constraint. I began the process of gathering member-generated content by reaching out to close personal contacts from my network to see what they thought about participating in this way. I received immediate feedback that the 30-second time constraint was far too short. That concision would not allow most members to say something of substance. I

found that requesting a one-minute member video statement was far more successful, striking the right balance between concision and substance.

After much email correspondence, and a few non-responses, fourteen people provided me with self-recorded videos of political belief along with selfie images for use within my mobile application prototype. Five of these fourteen people had filled out the survey, allowing me to pair their videos and imagery with their survey responses to build out full member profiles. I built a private YouTube channel to protect the privacy of my participants while using their video content for purposes of demonstration in this thesis.

As a member continues to use the application over time, producing more video statements of belief, and having additional conversations with other members, that content is saved within the member profile. Two of the five survey participants provided me with additional selfie images for use in simulating what content build up within the member profile would like over an extended period of time.

## APP NAME

During the summer semester of 2017, throughout the proposal research and writing process, I concentrated heavily on the concept and word “civility.” As early as June 2017, in my early excitement I went so far as to quickly purchase 2-Year terms for the domains *civility.work* and *civility.online*. In October 2017, along with the rest of my thesis cohort who had gone through the Proseminar thesis proposal writing process, I produced a thesis abstract poster for display in the University of Baltimore Langsdale Library. The title of that poster was “Civility Works: Bringing America Together One Conversation at a Time.”

Danna Pope challenged the use of the word “civility” during our interview and conversation about the topic. My research tells me that defining civility can be perceived as an overtly political act (Harcourt 2012). One of my main priorities in this thesis has been to attempt to prevent my own personal, political, or ideological biases from compromising the form of this product. As a personal member of the most politically powerful combination of race, gender, and sexual orientation identity in the country, I do not want accusations that I am trying to impose my idea of civility over anyone else. I chose to abandon the use of this



word in the name of the application, and allow my purchased domains to expire without any use.

I gave thought to words and symbols that bring Americans together. I thought about the tension between individual identities and group identities. I thought about what I would want to see achieved through people's use of this product. Ultimately, in consultation with my thesis chair and cohort, I chose the name "A United State." In late summer 2018, I purchased the domains *united-state.org* and *aunitedstate.org*. I think this name does two things successfully: it sets a goal for what could be achieved by bringing divided Americans together, and it is a very familiar name with the target audience. I have received only positive feedback about this name choice thus far.

## LOGO

Following the name selection, I began sketching logo concepts with pencil and paper. I sketched out seventeen initial concepts, sharing them with my thesis chair. The logo development in this thesis was actually the first time I have ever used mobile texting as a means of critique. My thesis chair helped me select the best concepts from my initial sketches. As I developed the logo, I took pictures with my phone and texted them out to my thesis chair, members of my cohort and other peers. It was a very efficient way to get actionable feedback, quickly.

My initial logo concepts all reference form for the American flag. I intended to pair this patriotic symbol with something representing a conversation between two people online. I wanted the logo to have affinity and elicit an emotional response. This got me thinking about something I saw shortly after the 2016 election concluded.

I live in Prince George's County, Maryland. In that area, of eligible votes cast, the results of the 2016 general election for president were 88.14% Clinton/Kane, and 8.41% Trump/Pence (PGCMD 2016). In the weeks that followed the election, I remember seeing American flags being flown upside down in front of people's houses. I remember having a visceral reaction to this sight. Official Naval and Congressional guidelines state that, "The flag should never be displayed with the union down, except as a signal of dire distress in

instances of extreme danger to life or property (US Congress 2003, US Navy 2009).” People were using the flag as a distress signal. Through all I have learned in my research about the current state of our politics, and political discourse in social media, this symbol seems appropriate to me. I decided to incorporate this distress signal into my logo.

I began digital development of the logo. Despite my relative unfamiliarity with the tool, I used Adobe Illustrator to create a vector graphic for maximum flexibility in publication and use. Immediate feedback from the cohort and thesis chair concentrated on the symbols used for the people having a conversation. The use of red for Republican or Conservative, and blue for Democrat or Liberal was too limiting. If one of the main goals of the application is to provide equality in the political debate to a truly diverse community of people, that diversity had to be represented in the logo.

I wanted to focus on the main political ideologies within the United States. I began with the colors of the four most popular political parties in the country: Green for the Green Party, Purple for the Libertarian Party, Red for the Republican Party, and Blue for the Democrat Party (Ballotpedia 2018). I chose a neutral gray to represent America’s largest, most-unified political party — the 39% of eligible voters that towered over the total number of supporters for either major party presidential candidate in 2016 — the non-voters of America (Brilliant Maps 2016, McDonald 2016).

Finally, I want to acknowledge that the openness and equality afforded by the application will allow some marginal, extreme ideologies into the community. It is beyond the scope of this proposed initial product to block the entry of any member. All members will be moderated and regulated, the same as any other. They will need to adhere to terms of use or face sanction or banishment. I chose black and red to represent the anti-fascist Left known as “Antifa,” and black and green to represent their nemesis — the internet troll Right, known as the Alt-Right (Neiwert 2017, Raja 2019, Yates 2017).

# DEVELOPMENT

## PRODUCT OVERVIEW

I have designed and developed an interactive prototype proof of concept for a mobile application that could make use of the mobile device camera and microphone to facilitate face-to-face online conversations about politics. This application intends to guarantee equal speaking time for real and diverse participants who may carry starkly opposing ideological viewpoints.

Protection of user privacy is paramount. A valid email address is the only required Personally Identifiable Information (PII) for registration. It will not be made publicly viewable for any reason. Upon onboarding within the application, members will be given a choice to either build their member profile and begin interacting with other members, or to take the opportunity to preview the application and other members within the community while remaining hidden from the community. If a member chooses the preview option, they are not allowed to interact with other members nor can other members interact with them. A member would have to build their profile to become visible and available for interaction.

Members would build profiles that are viewable to the community. They would be able to self-identify as much as they wish on common attributes such as age, religion, sexual orientation, gender, race, political ideology, area of residence, education, professional attainment and income. All of this information would be optional, and could be provided but hidden by the member at any time. This same information can be updated at any time. The more information a member volunteers to share in their profile, the better the application can match them with other members of differing backgrounds and beliefs. Members would have no names, or screen names. Members would not be able to search for other members. Members could record video statements under one minute in length to demonstrate their political beliefs to the community. The profiles and recorded video statements would allow members to find one another and request voluntary face-to-face conversations about political topics.

The idea is for members to be matched for suggested conversations through an algorithmic comparison of differences in member profiles. For example, someone who identifies as Conservative is likely to be matched with someone who identifies as Liberal,

particularly if these members also live and vote in different, historically Conservative and Liberal states, respectively. A member who lives in a Rural area is likely to be matched with a member who lives in an Urban area, especially if their political ideologies differ. The same holds true for any of the following examples: Muslim with Christian, Woman with Man, Black/African-American with White, Blue Collar worker with White Collar worker. This model of matching works against the natural human tendency toward homophily — a gathering of like others to one's self within one's social network (McPherson et al 2001). This tendency is exacerbated by the design of modern social media services to show the user people and content “most relevant to them” based on their past interactions, all but assuring the formation of a filter bubble that almost certainly will not challenge the user's point of view (Herrman 2016).

The application would only allow video-enabled, synchronous, live, oral communication between members. Text-based, asynchronous communication between members would not be allowed. The core idea is for equal time limits for speaking to be imposed on both parties during a conversation. Each speaker would have a two-minute turn to speak. When two minutes is up, the speaker's line would be muted, and the other member's line would be unmuted. The conversation would advance like this, with members trading two-minute turns until a full hour has been reached. At the end of the one-hour conversation, both members would rate one another based on the experience.

From anywhere within the application, the member could access a help prompt to freeze the screen, and be provided with a very brief overview and explanation of the user interface and its controls. Similarly, the member should be able to send feedback about their experience directly to the application administrators, from anywhere within the product, and at any time, in the form of a written communication.

Once the member has built their profile, they should have full control for making changes to any of the content within their profile. All member conversations could be recorded and saved to the member profile by default, but could be removed by the member at any time. The member should also be able to update their video statement of political belief, and their profile picture, at any time. At the center of the bottom navigation

within the product, the member should be able to start a recording for a new video statement from anywhere within the application. The member should also be provided with an area where notifications will accumulate indicating other members and their requests for a conversation. All members will carry a color-coded dot indicating their status: green means online and available for conversation, red means online but unavailable and already engaged in a conversation with another member, and grey means offline.

Members should be able to lightly curate their member matching area by either dismissing members to make them temporarily disappear from the feed, or pulling down the feed to reload and reshuffle. Some safety measures will need to be present. While viewing another member's profile, there should be an option to block that member, effectively removing them from the user's experience altogether. Another safety measure of critical importance will be a member's ability to report abuse from within the video conversation itself. Members should be able to record the conversation, and escalate it to the application administrator for review. The application administrator would then make the decision to either sanction or ban the offending member.

## **BUILD**

I would recommend to other graduate students in the program that they use tools they have deep experience with to work on their thesis projects. I made a different choice. To-date, I have not had the opportunity to work on native mobile application design and development in my career. I had no prior experience with either Sketch or InVision, but these are the tools I selected to build my interactive prototypes. It was important to me to learn these mobile-first tools and demonstrate this experience to future employers. It just happened that this past year we started using InVision heavily at my employer for prototyping and management of our proprietary design system, so it turns out that my intuition has been immediately beneficial.

I used Sketch, with the Craft plug-in, as my primary tool for building the mobile application prototype. This allowed me to create vector graphics directly in the prototype as it was produced. The Craft plug-in facilitated integration with iStock for managing

purchases and the importing of vector assets directly within Sketch for immediate manipulation. Craft also facilitated a deep integration with InVision, allowing for the publication of application screens out of Sketch and directly into InVision, along with management of version control. In my view, the most valuable feature that Sketch provides is the management of symbols. This allows the creator to make global, rapid changes across the full prototype through effective use of symbol management. Create an object once. Convert it into a symbol. Use it across every screen. Make a change to it once, and the changes are honored wherever the object is used. Sketch also supports the testing of interactivity, including hotspot transitions and navigation.

I used InVision primarily as a way to share the prototype and get feedback. Student access and licensure was provided to me by my thesis committee member, Greg Walsh PhD. The interactivity for transitions and navigation within InVision leaves a bit to be desired. However, InVision is great for allowing a creator to share their interactive prototype as a link to be viewed directly in a desktop or mobile browser. The InVision preview link can even be delivered via SMS from directly within the tool. The preview mode can allow anonymous viewers to leave comments on pages. The main value that InVision provides is rapid configuration of interactivity, along with efficient collection of user feedback to assess the user experience being delivered through the design.

## PROTOTYPE DEMONSTRATION & USER FEEDBACK

As the prototype came together in InVision, I shared it with my thesis cohort and peers in my network. I had virtual meetings with my thesis committee members to deliver demonstrations through screen sharing. When the prototype was fully built, I emailed it to all of the user participants who provided user-generated content for use within the prototype. I collected feedback notes delivered in email or verbally. I also gave a full demonstration to my product team at work. Three of the participants in that demonstration — a Product Owner, UX Researcher, and Business Analyst — were all educated in the UX programs here at the University of Baltimore. My boss also participated in that demonstration.

I have received overwhelmingly positive feedback about the prototype. Today, the prototype does not deliver an optimal self-guided experience. When users are left to find their way on their own, they often can become confused by the fact that not every button or every member is completely interactive. This requires either close guidance or outright demonstration directly from me in order to keep the user moving forward so they can experience the full prototype. Also, because the participant videos are in a private YouTube channel, users who are self-guiding through the prototype cannot view those videos. Only I can show those videos while logged in to YouTube. From everyone who has seen the prototype in any form, all of them have expressed a strong desire to see the member videos. For those who have been able to view the member videos, they enjoyed them a great deal.

There have been very positive responses about the help prompting to guide users through the application. Users also liked the quick way they would be able to send feedback directly about their experience to the application administrator. These are struggles I face as a product leader at my job. Users always seem hesitant to provide direct feedback, especially if they need to open a support ticket in an outside system in order to do so. I also struggle with how to most effectively manage what other people are saying in terms of training others about how to use my product. Bringing these features directly into the application is a model to start iterating toward potential solutions in these areas.

I also received feedback from my product team that they would be interested to see more granular issue-based matching of members. The idea was that once the member profile has been built, there could be additional questions about specific issues in a longer form series of questions that could be filled out by the member. This would allow for more targeted matching: pro-life with pro-choice, capitalist with socialist, gun control with Second Amendment advocate, etc.

Concern was also expressed about doxxing. Doxxing is a phenomenon whereby one party gathers personal, private or sensitive information about a second party, and then publishes that information publicly without the consent of that second party. The intention



is usually to inflict damage upon that second party (McNealy 2018). My Scrum Master asked about the screen capture capabilities in mobile devices. She expressed concern for a scenario where one member might know another member in real life, and capture their video statement expressing a political opinion, then share it without that member's consent in order to sabotage them.

I think this edge case is a valid concern that needs to be considered in the design, but would only be likely where the application's member population was extremely concentrated within a small, pre-existing social network. The combination of anonymity, and the absence of personally identifiable information being viewable by the community, make this very unlikely. A user policy and effective communication could prevent this. If the member population understood that screen captures were banned while using the application, and screen captures were monitored, then members who were defying this policy could be either sanctioned or banished from the community. Instagram monitors and indicates for members when their content has been screen captured. Some form of those capabilities could be employed within my product to give members reassurance that their content was not being shared without their consent.

## WEBSITE

I have developed a promotional website for the product. The domain <http://united-state.org> redirects to the primary domain <http://www.aunitedstate.org>. The website is very small in scope. It currently and purposefully does not have a SSL certificate, and thus cannot be crawled and listed by search engines. I built the website in WordPress. My MFA Integrated Design colleague, Aseloka Smith, recommended the Thrive Architect plug-in that she has been using to develop her own thesis website.

The homepage contains the application logo, an explanation of the project, and a lead generation form to capture user email addresses. When a user enters and submits their email, they receive an email from *A United State* as a welcome with further information about the project. Thrive Architect provides the form elements within the website. The email list and welcome email were configured in MailChimp. Within the

welcome email that users receive, it states that because an email address has been provided while this project is in its infancy, that these users will be given free and immediate use of the product for life once it has been fully developed and delivered into production.

A page called “A United State” gives a more in-depth overview of the concept, along with limited screenshots and the user journey map. The page “Connect” has a contact form that send emails to me directly, redirected from the website’s primary email address [info@aunitedstate.org](mailto:info@aunitedstate.org). The page “Contribute” has a PayPal image then when clicked leads the user out to a PayPal donation page where I can receive financial contributions either using a PayPal account or a Debit or Credit Card.

## BUDGET

ITEMS	COST
Domains civility.work civility.online	\$107.64
MacBook Pro	\$3,500.00
Adobe Creative Cloud (11 months X \$52.99/mo)	\$582.89
Sketch	\$100.00
Domains united-state.org aunitedstate.org	\$117.64
Web Hosting	\$71.88
Managed WordPress	\$95.88
Thrive Architect WP Plug-In Thrive Leads	\$138.88
<b>TOTAL</b>	<b>\$4714.81</b>

## FUTURE DEVELOPMENT

## FURTHER RESEARCH

I think the biggest user research gap that needs to be filled is effectively simulating the experience of the moderated conversation between strangers with different political beliefs. Diverse volunteers from across the political spectrum could be recruited, paired together, and a video enabled conference could be organized where the host force-mutes both parties based on the time constraint of two-minute turns proposed in the application design. These sessions could be recorded and analyzed for observations that might improve the conversation experience within the application. Thesis committee member Kathryn Summers, PhD, made this recommendation late in the thesis development process. I first contemplated performing this kind of research when I wrote the proposal for this thesis. I have been limited by the small sample size, and largely homogenous ideology, of my user persona participants. I have been limited by finite time and resources. This kind of user research is something I believe to be valid and valuable. I want to do it to aid further development. I will need more time and resources to make it a success.

Beyond this kind of simulated experience for user research, I truly believe that building a minimum viable product (MVP) (Reid 2019), and shipping it into production to a limited and controlled user population will be the best vehicle for collecting the most valuable user research moving forward. If not an actual MVP, developed and functional in production, then at minimum a fully interactive version of the prototype would need to be produced — meaning all present member profiles are fully built out and interactive, along with all profile build responses being fully selectable and interactive — in order for objective observational user research to be valid and valuable moving forward. Currently, there are a very limited number of members that can be interacted with. Many of the components within the application prototype are for purposes of static demonstration only. Today, all members experience moving through the interactive prototype as me rather than themselves. At best, heavily guided use is all that is possible. It has been my experience in a career of product development that the best insights come from the marriage of objective and non-intrusive observation of application use, analysis of use metrics, and user interviews.

With a social media application that emphasizes the production of user content through videos and pictures, it is my view that users need to be given an opportunity to produce video and pictures in order for optimal user research to occur. Similarly, when communication between users within a social media application is voluntary and happens through the use of live video, then users need to be given the agency and capability to choose who they would like to speak to, and a live video experience that enables that conversation. The best way to facilitate this kind of user research is through the development and delivery of a true MVP.

I also plan to seek consultation on development and intellectual property protection. I have a cousin, Erin Hochstatter, who is an iOS developer at a design and innovation firm called “tandem” in Chicago, Illinois. Unfortunately, she has been too busy planning her wedding to speak with me in-depth about the project, but I do plan to give her a demonstration of the prototype to get feedback about the scale, cost and feasibility of developing the MVP. I also have a friend, Mark Smith, who is an Intellectual Property Litigator, concentrating in technology, based in Chicago, Illinois. He works for the international law firm “Perkins Coie LLC.” I would like to seek out legal services for protecting my IP before making it more publicly viewable than it currently is.

## DISTRIBUTION PLAN

The mobile application in this thesis is intended to be a common service freely available to all Americans to speak with one another about common political issues. It should contain a stable, minimal, core set of features that provide a high-quality discursive user experience closely simulating real life conversation. Once built, and used broadly by the population, its sustenance should be financed through a combination of philanthropic and member sponsorship. It should not follow the attention economy, surveillance capitalism model of selling predictive behavioral data to advertisers (Harris et al 2019). Craigslist.org and Wikipedia.org are two massively large, browser-based desktop websites with crowd-sourced content who are successfully crowdfunded. Equity crowdfunding sources like

*Wefunder* (Wilson 2017), *StartEngine* (StartEngine 2017), and *SeedInvest* (SeedInvest 2017) also offer grassroots financing opportunities for new ventures like this one (Popper 2017).

There is a pattern among mobile-based social media applications promoting successful early adoption by younger audiences, achieving growth, obtaining critical mass, and expanding outward toward a general and likely older audience. This has been the case for Facebook, Instagram, and Twitter. Facebook owns Instagram. Both Facebook and Twitter are now publicly traded companies. In the past two years, Facebook has seen its strongest growth in users 50 to 64 years of age (Pew 2017). This also happens to be the most politically active demographic, both online and offline (Duggan and Smith 2016).

From 2004 to 2006, Facebook excluded anyone outside of students on specific American college campuses with a valid .edu email address from registering and creating an account on the social networking site (Mansell 2006). After carefully opening registration from one college campus to the next, then to high school students, and finally to select business organizations, on September 26, 2006 Facebook opened general registration to anyone with a valid email address (Abram 2006, Mansell 2006). It was announced in a blog post on Facebook written by Carolyn Abram titled “Welcome to Facebook, everyone” (Abram 2006).

This distribution model is appropriate for the mobile application being designed in this thesis work. Not only has this model for growth been proven successful, but it also offers the possibility of collaboration with some of the scholars cited in this proposal including their connections to the Computer Science departments within their universities that could offer the skilled labor force needed to develop the fully functional application at low cost. If the college campus were the incubator for product development, partnership with social science departments could yield valuable research data through use of the application. This model also carries the potential for fulfilling a unique need in the current political landscape. There is a war being fought over free speech on American college campuses. Speech suppression, incivility and violence have been prevalent throughout the 2016 federal election campaign and following its conclusion up to the present day.

In April 2017, several students were arrested at Auburn University during fights that broke out at protests ahead of a speech given by Richard Spencer, the director of the

white nationalist *National Policy Institute*, self-styled founder of the “Alt-Right,” and an advocate of “peaceful ethnical cleansing” (McLaughlin 2017). In February 2017, there were near-riots on the campus of the University of California-Berkley resulting in the cancelation of a speaking event for Milo Yiannopoulos, a controversial anti-feminist whose comments seemingly promoting pedophilia led to his removal as “Technology Editor” at *Breitbart News*. Then again in April 2017, 21 people were arrested in Berkley, California when pro-Trump and anti-Trump protestors clashed violently (Svrulga et al 2017). In March 2017, self-identified liberal professor Allison Stranger sustained a concussion when she and her guest, Charles Murray, co-author of the controversial 1994 book *The Bell Curve* which correlates race and differences in intelligence, were attacked by masked protestors at Middlebury College (Stranger 2017).

These are just a handful of examples. The modern American college campus needs a moderated forum where all students are given equal speaking opportunities to discuss contentious political topics in a safe and productive way. The high concentration of political activism on modern American college campuses makes these settings and their population uniquely valuable to pilot a technology like the one being designed in this thesis work. This age group is the earliest adopter of all mobile social media applications. Their buy-in, feedback from use, and endorsement could lead to viral adoption by the larger general population.

The first organization I would like to reach out to is the *Center for Humane Technology* founded by Tristan Harris and partners (Harris et al 2019). Tristan Harris sold startup technology to Google in 2011, and began work as Google’s in-house Design Ethicist from 2013 to 2016. After creating a viral internal slide deck that acted as a kind of manifesto about “technology’s arms race to capture attention and the moral responsibility of technology companies in how they shape society,” he left Google to try and find solutions to reverse these harms himself (Harris 2019). Harris has been called the “closest thing Silicon Valley has to a conscience” by the *Atlantic* magazine (Bosker 2016). The *Center for Humane Technology* believes that the unintended consequences of the “extractive attention economy is tearing apart our shared social fabric” leading to digital addiction, harms to

mental health, a breakdown of common truth, political polarization and manipulation, and over-emphasis on immediate gratification and superficiality (Harris et al 2019). There is an ethical alignment between my product and Tristan Harris' organization. The Center works to "drive adoption of Humane Technology through design working groups, cataloging best practices, and elevating exemplary Humane Tech products (Harris et al 2019)."

## CONCLUSION

I hope I do not disappoint or shock anyone when I say that this feels more like a well-informed beginning, rather than a conclusion. When I began this thesis work, I will admit that I was filled with grand ambitions of being the next Mark Zuckerberg — but actually fulfilling a utopian vision of the future, not allowing poor design choices and poorly designed financial incentives to corrupt that vision. How ridiculous was I?

It did not take long after finishing the Proseminar proposal for me to feel the full weight of the challenges I meant to address, and the enormous scale of the work required to address them. That work will not and should not ever have an ending. By profession, I am a user experience designer, and an Agile and DevOps software development practitioner. I know that not every question can be answered, nor every assumption validated, prior to a product being shipped into production. I believe strongly in continuous delivery, continuous feedback, and continuous improvement.

In the design of this prototype I have created what I believe to be an effective foundation for a minimally viable product that can stand at the starting line of exploring solutions to the numerous problems that have been outlined in this work. Above all, I am an engaged citizen who recognizes that there is no savior coming to free us from these ills. We have to do the work, together. I have designed one tool that could be used to do some of that work.



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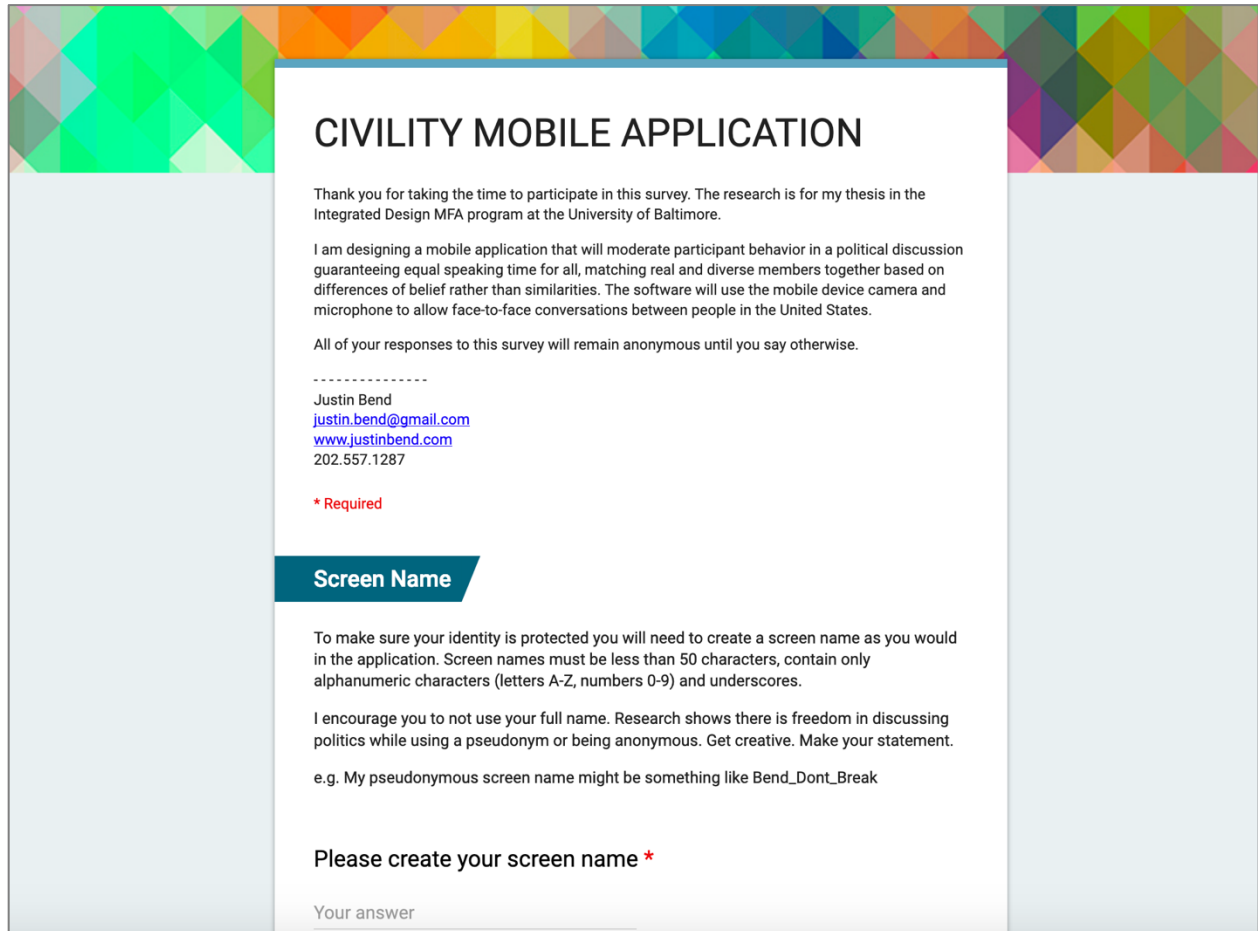
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## APPENDIX A

### SURVEY

The survey form is titled "CIVILITY MOBILE APPLICATION" and is set against a background of colorful geometric patterns. It includes a thank-you message, a description of the mobile application, and a section for creating a screen name. The form is divided into sections by a light blue vertical bar on the left and a light blue vertical bar on the right. The main content area is white. The title "CIVILITY MOBILE APPLICATION" is in bold black text. The thank-you message is in a smaller black font. The description of the mobile application is in a smaller black font. The contact information is in a smaller black font. The "Screen Name" section is highlighted with a dark blue header. The instructions for creating a screen name are in a smaller black font. The "Please create your screen name" prompt is in bold black text. The "Your answer" field is a text input box.

**CIVILITY MOBILE APPLICATION**

Thank you for taking the time to participate in this survey. The research is for my thesis in the Integrated Design MFA program at the University of Baltimore.

I am designing a mobile application that will moderate participant behavior in a political discussion guaranteeing equal speaking time for all, matching real and diverse members together based on differences of belief rather than similarities. The software will use the mobile device camera and microphone to allow face-to-face conversations between people in the United States.

All of your responses to this survey will remain anonymous until you say otherwise.

-----  
Justin Bend  
[justin.bend@gmail.com](mailto:justin.bend@gmail.com)  
[www.justinbend.com](http://www.justinbend.com)  
202.557.1287

\* Required

**Screen Name**

To make sure your identity is protected you will need to create a screen name as you would in the application. Screen names must be less than 50 characters, contain only alphanumeric characters (letters A-Z, numbers 0-9) and underscores.

I encourage you to not use your full name. Research shows there is freedom in discussing politics while using a pseudonym or being anonymous. Get creative. Make your statement.

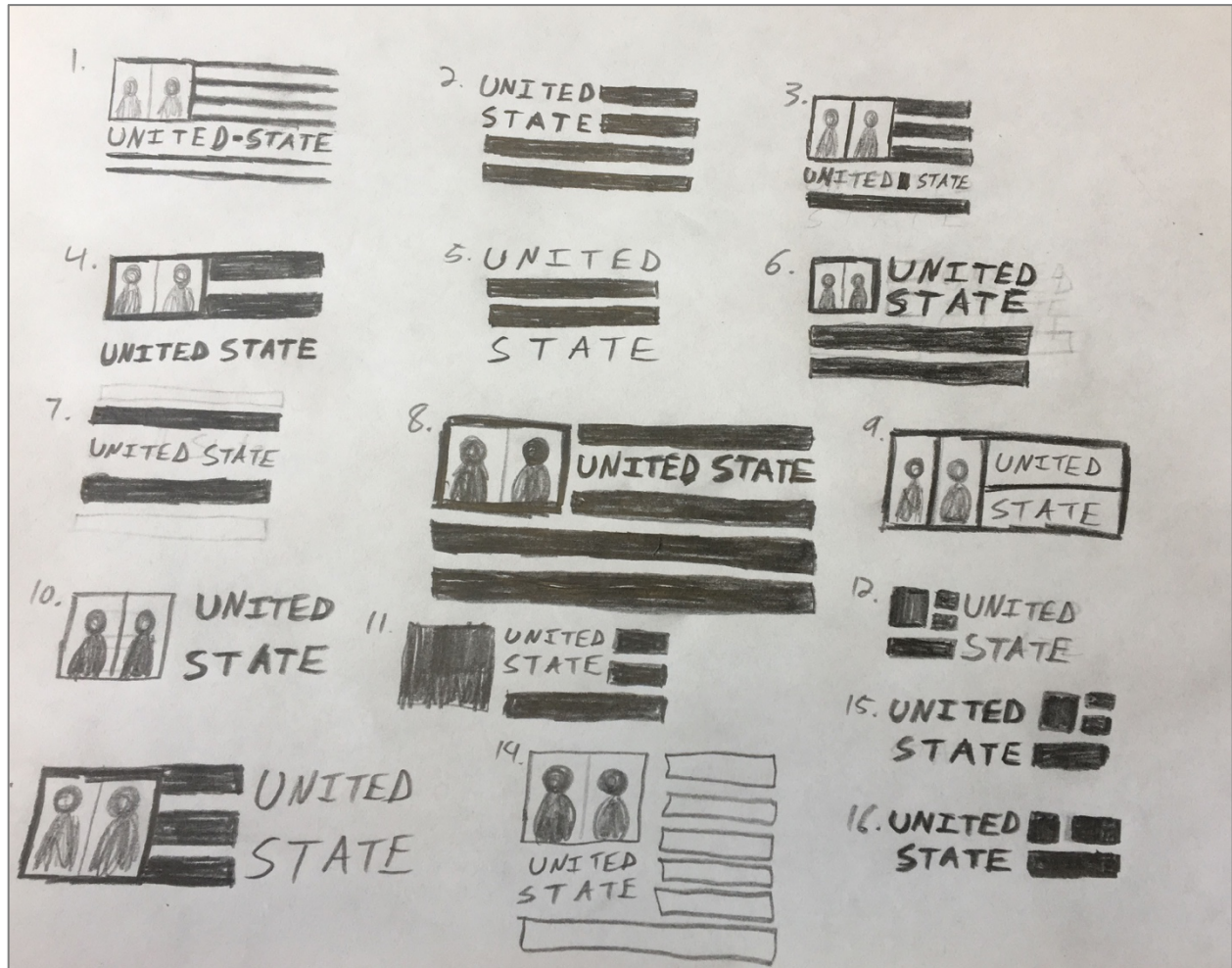
e.g. My pseudonymous screen name might be something like Bend\_Dont\_Break

**Please create your screen name \***

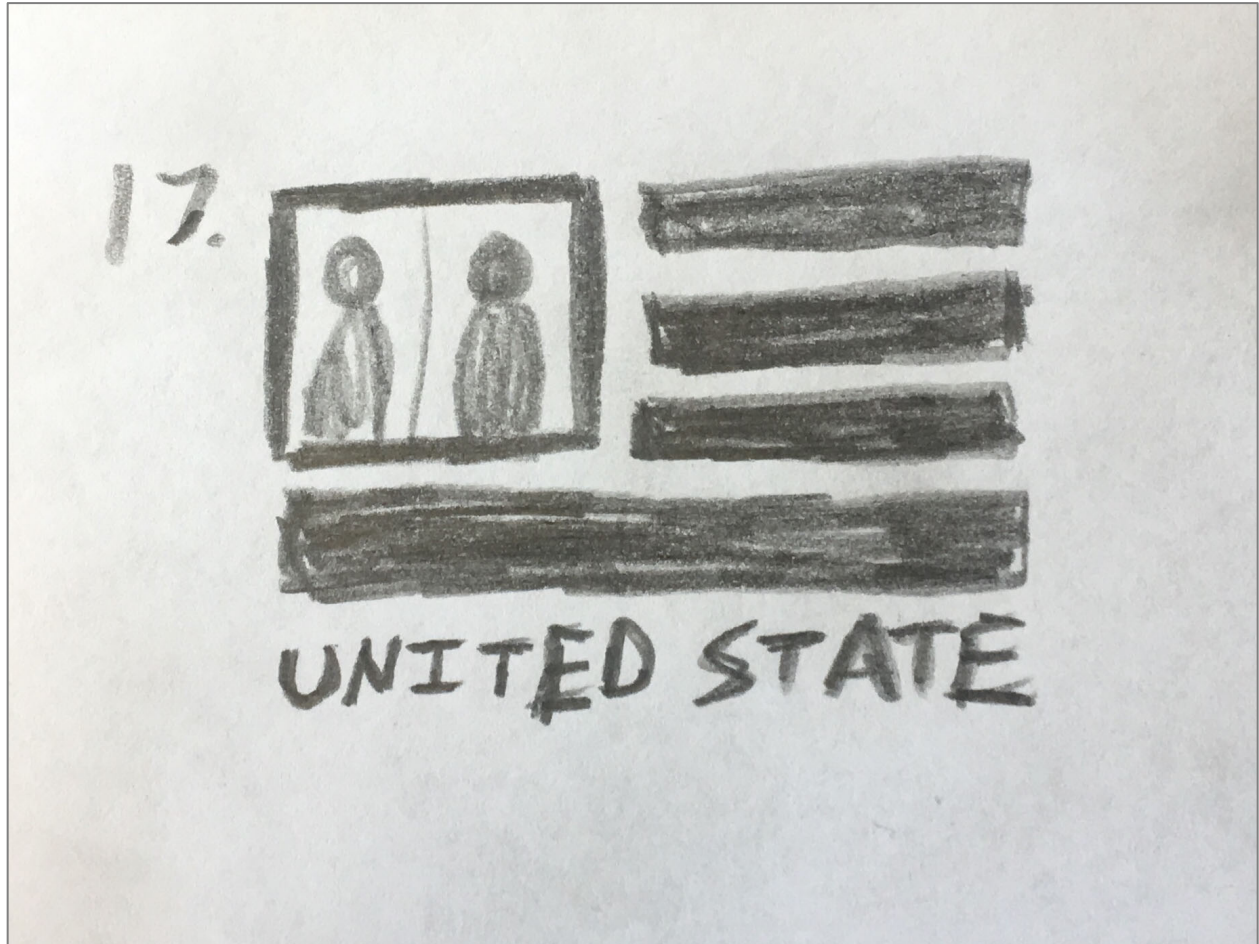
Your answer

## APPENDIX B

## LOGO DEVELOPMENT: SKETCHES







## APPENDIX C

### LOGO DEVELOPMENT: DIGITAL





## APPENDIX D

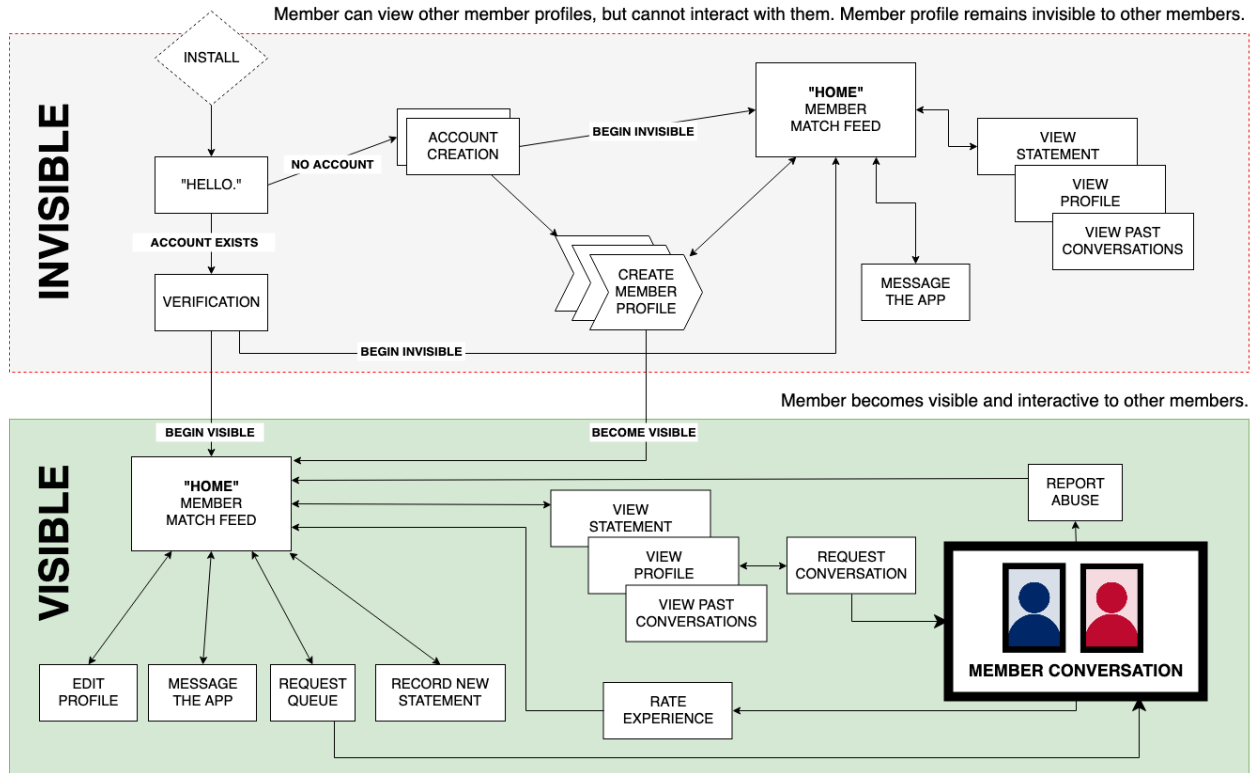
### FINAL LOGO





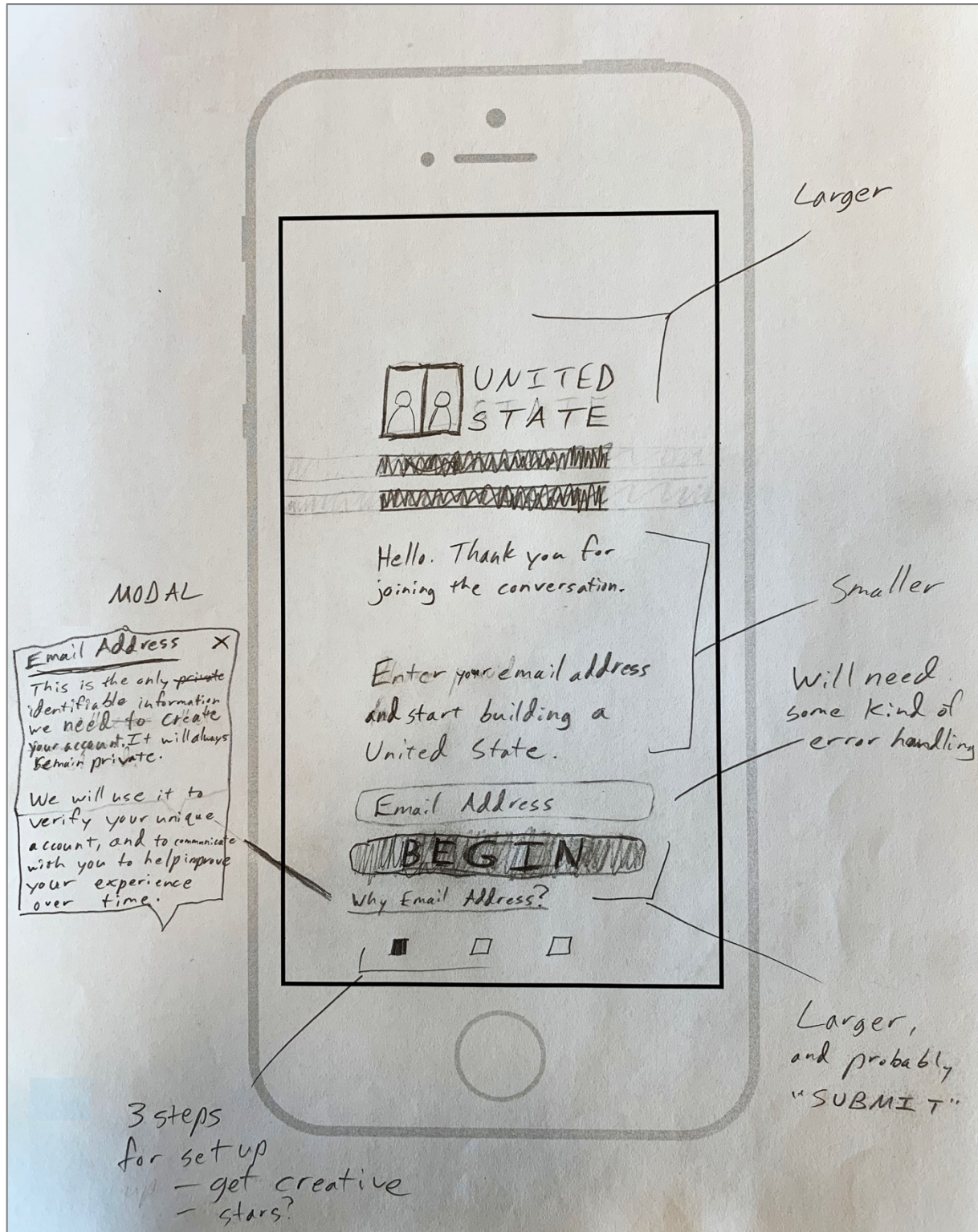
## APPENDIX E

### USER JOURNEY MAP



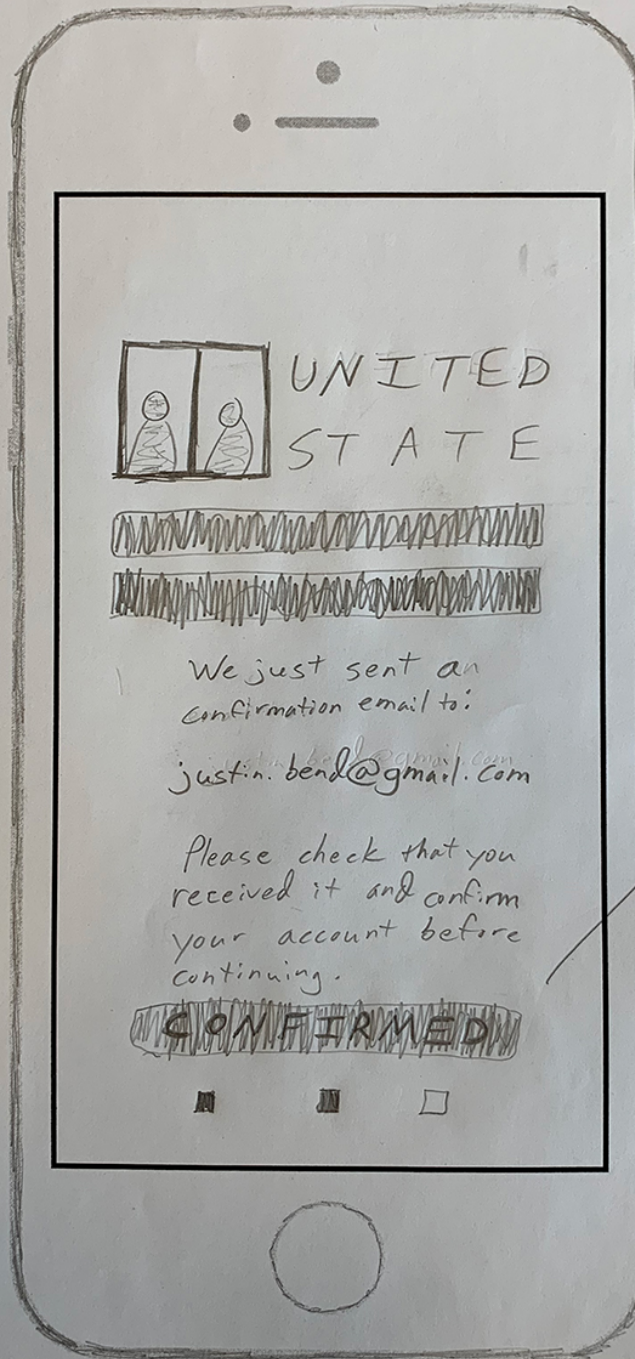
## APPENDIX F

### PAPER PROTOTYPE SKETCHES





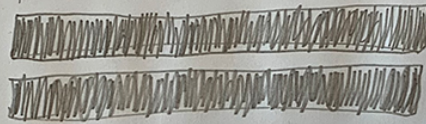
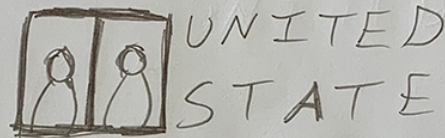
Maybe add something in the message - either in app or in email (or both) - about ensuring all accounts belong to real people.



This is a one-time process. Once complete, this page will never be seen again upon log in.

Will need some kind of error handling

Again, one-time  
process. Regular  
login would  
just have  
email address  
then pw on  
single screen



Create a password  
to keep your account  
secure

PASSWORD

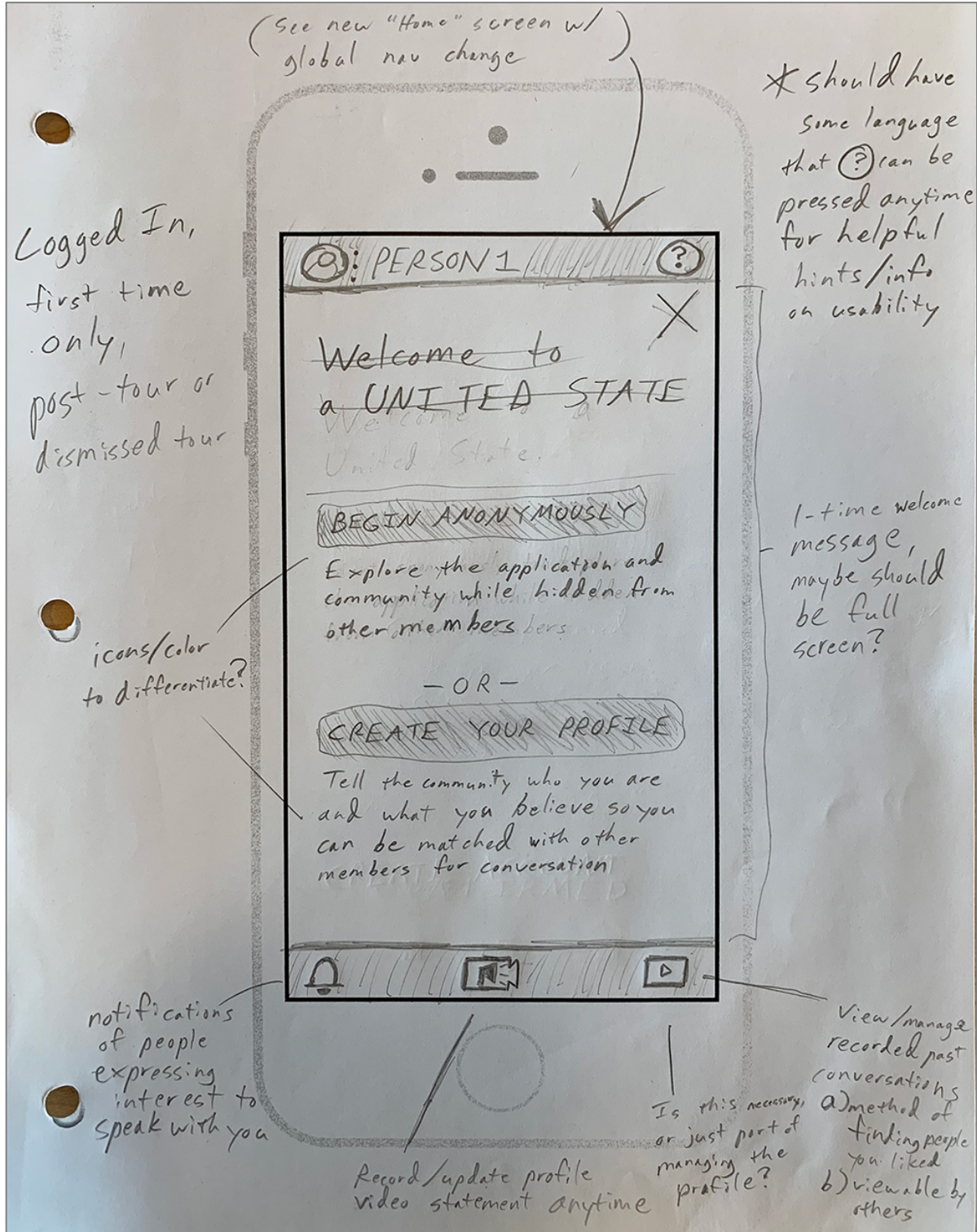
CONFIRM PASSWORD

CREATE ACCOUNT



Error handling/  
validation  
(# of characters,  
alpha-numeric,  
etc?)





## "My Profile"

- first time set up
- step-by-step

### Step 1

Politics

### Step 2


Demographics

### Step 3

Picture + Statement

This is important.  
Keep last as this is  
the intimidating part.

×
PROFILE
Save



## WELCOME

Answer the questions to set up your member profile. All questions are optional. You will be able to edit and control the visibility of any answers.

### POLITICS

Do you vote? ☐

How would you describe your political views?

Ideology (ex: Contrist)

What political party do you tend to support?

Party (ex: Independent)

2/3

1/3

Questions

Visibility

\* Build, view, edit profile screen

Intro text


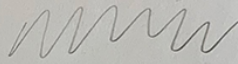
- used to match w/ other members
- editable, able to control visibility
- all are optional

Auto save between steps

Member can save and abandon at any time to start anonymous, and return to the profile to finish and begin interact w/ other members



X MEMBER PROFILE Save

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEMOGRAPHICS

What state or district do you vote in?  
ex: Illinois

How would you best describe the area? here  
ex: Rural

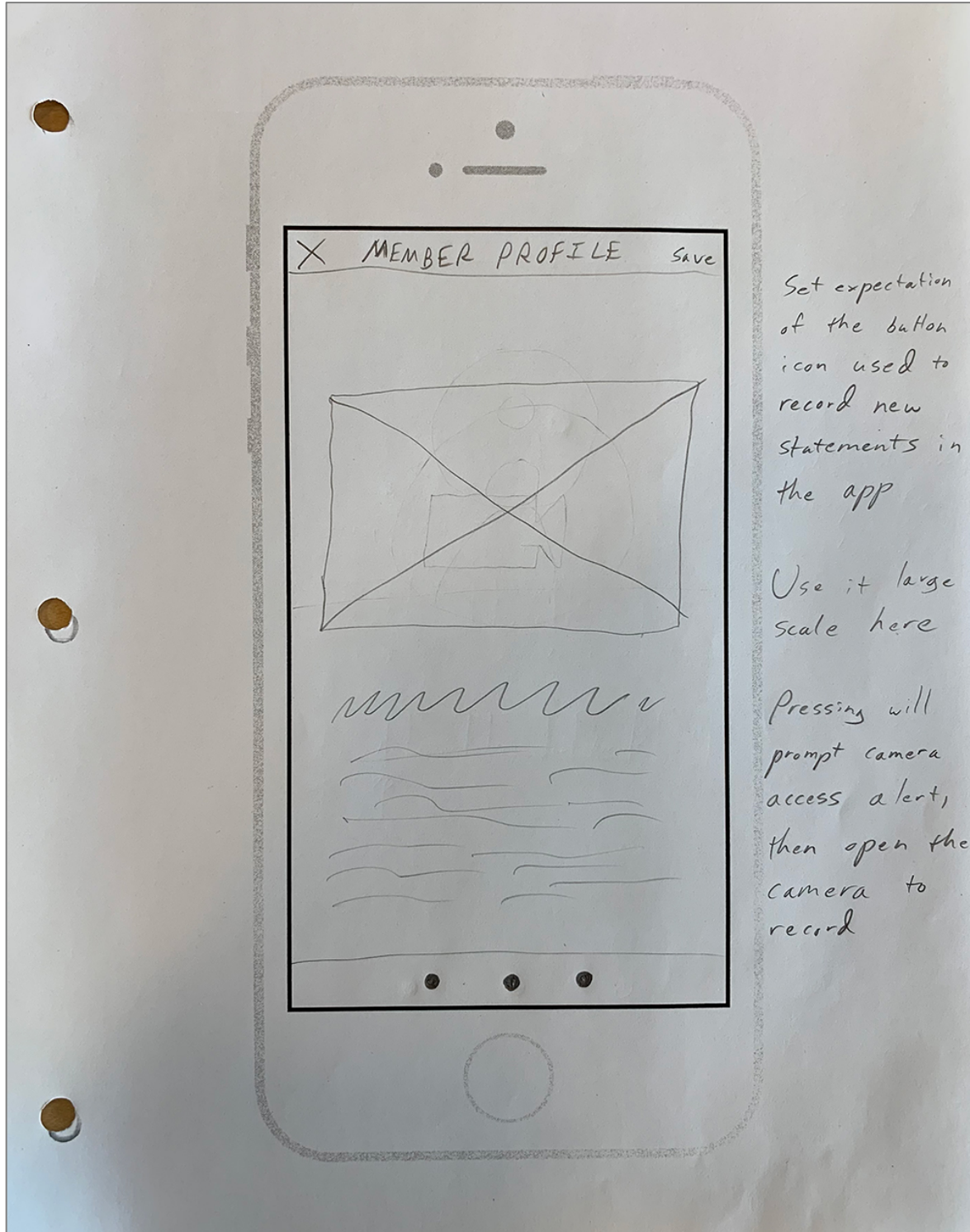
In what year were you born?  
ex: 1980

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

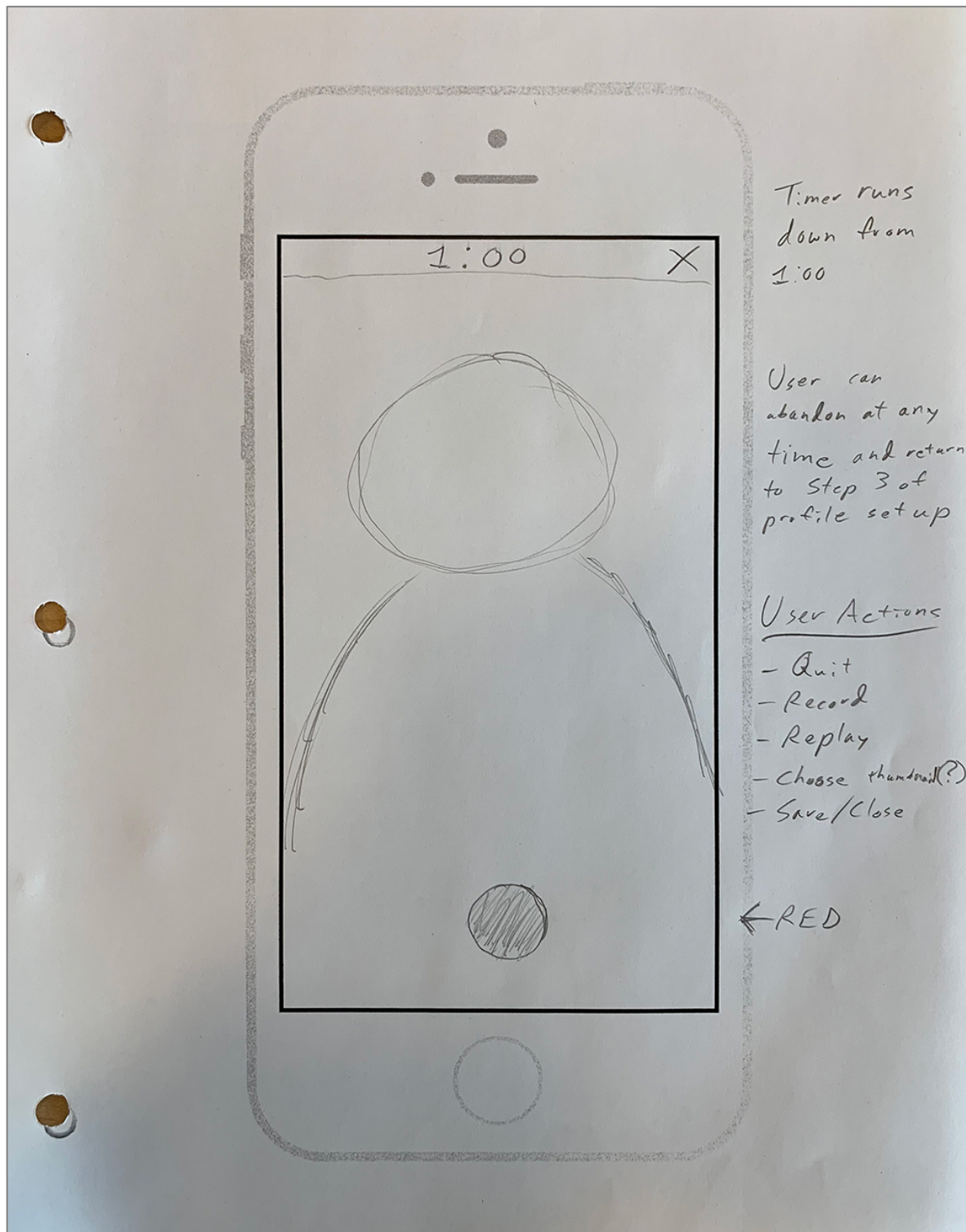
• • ○

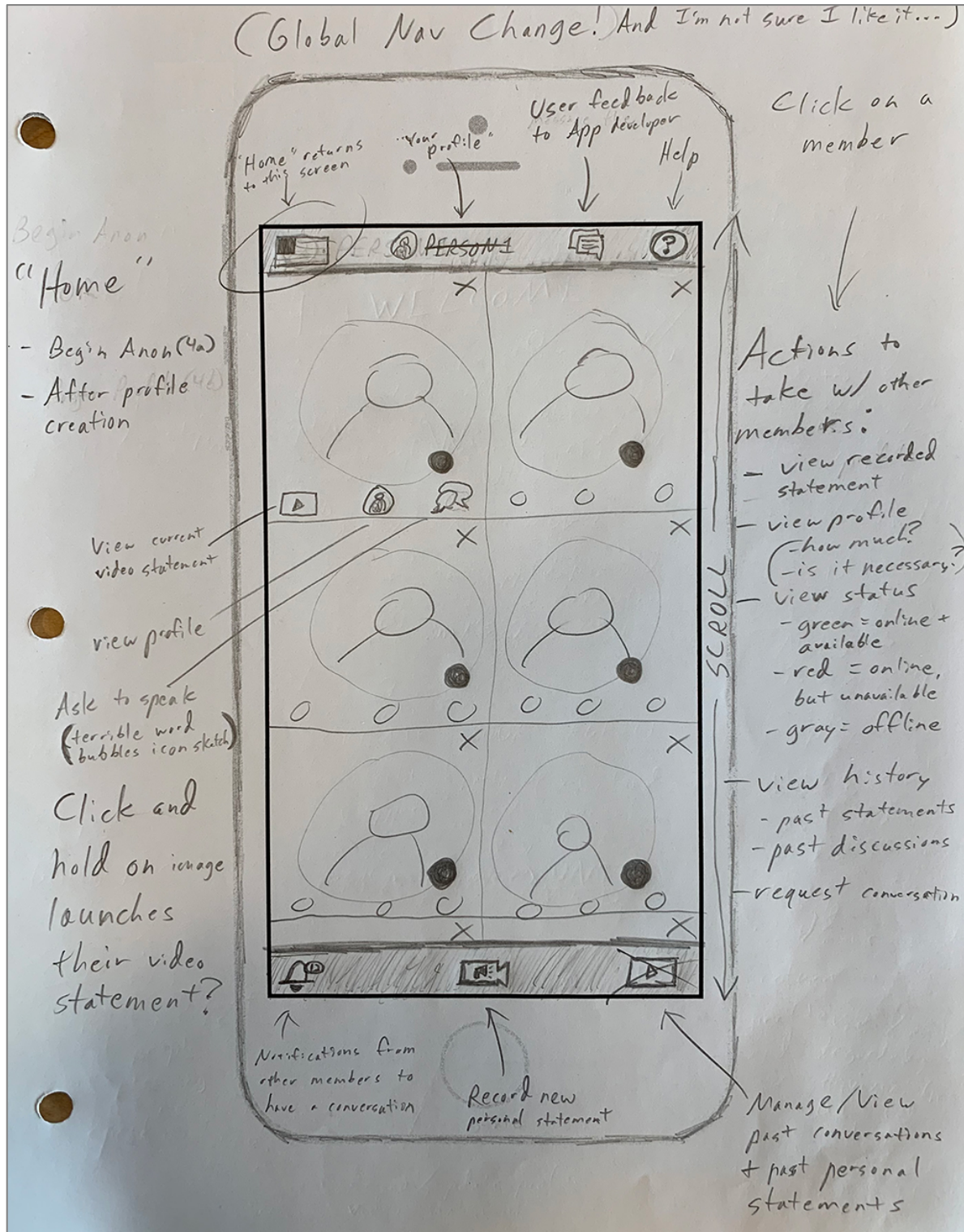
\*Will need a way to get back to Step 1

\*Also, think about the on/off concept for visibility of answers

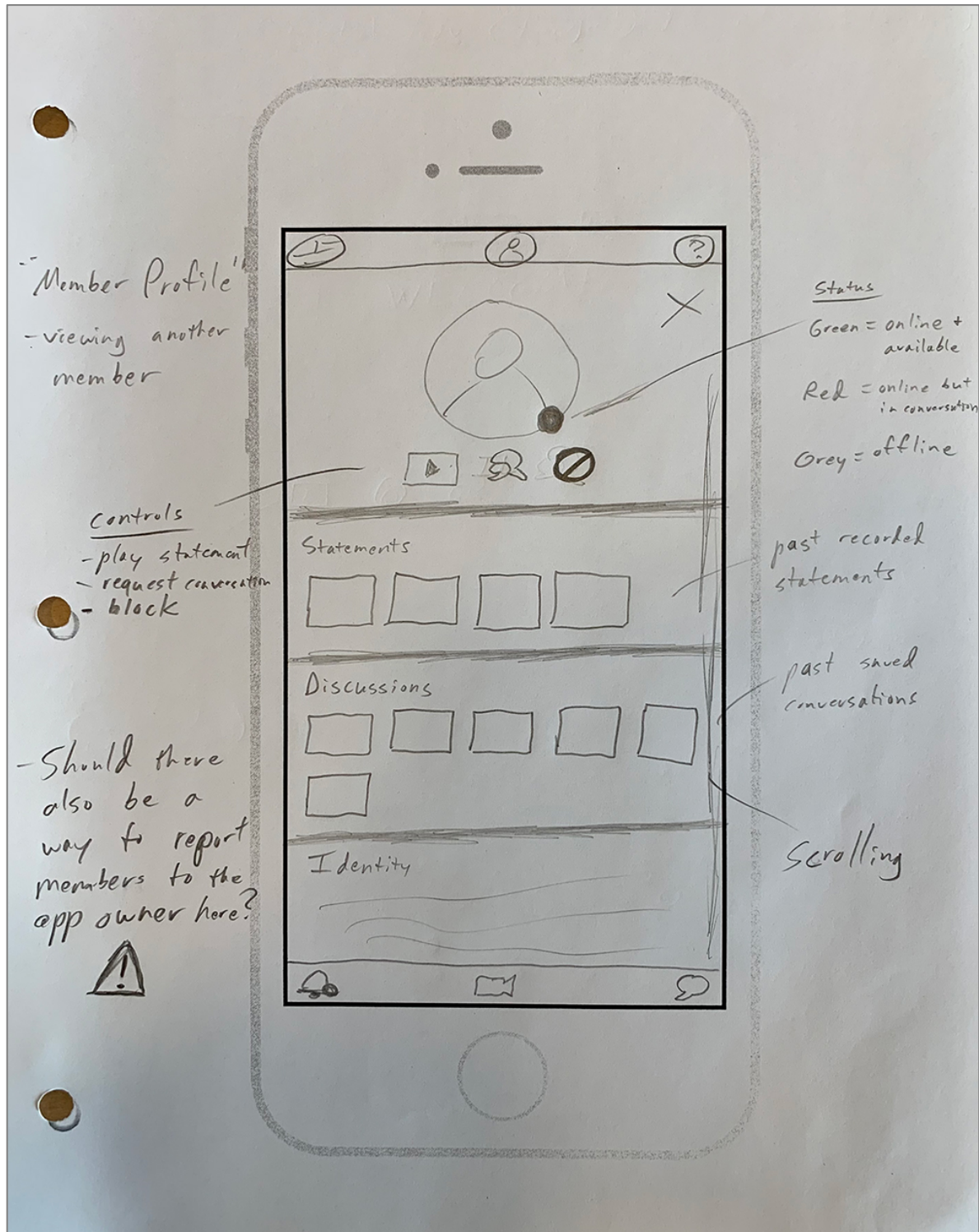










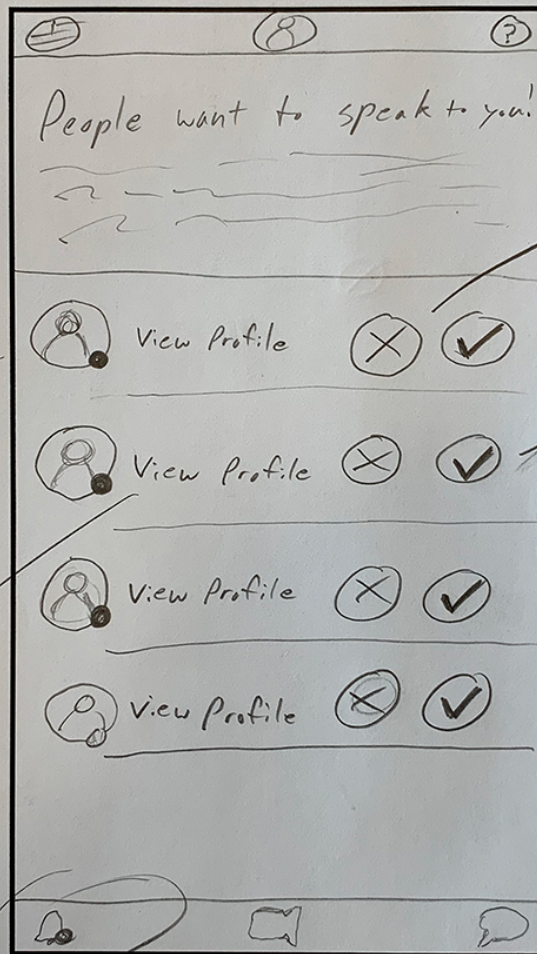


Message

Queue

press and  
play latest  
recorded  
statement

press and view  
profile as panel  
that can be  
closed to get  
back to this  
screen



dismiss  
request

accept  
request

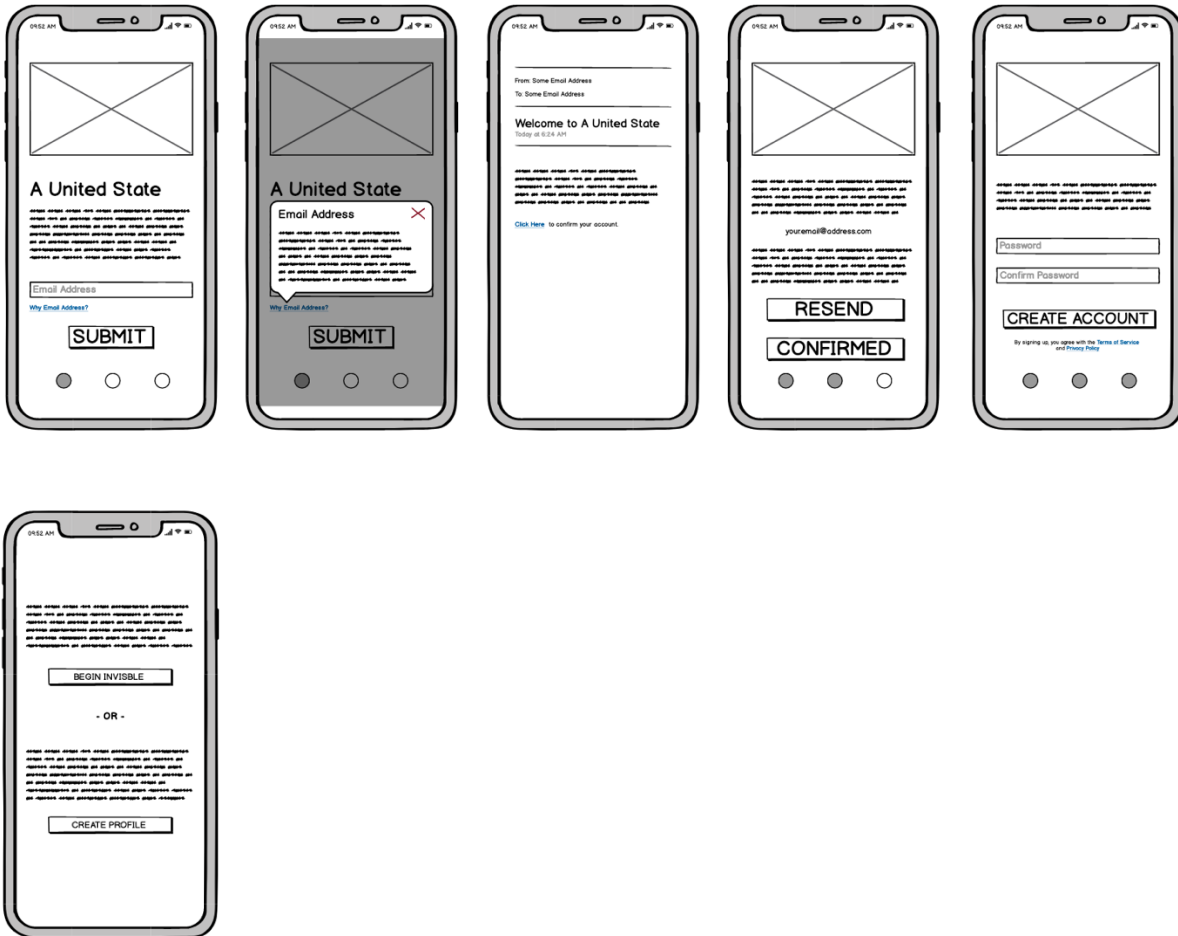
- If person is  
online and  
available, go to  
screen waiting  
for convo to  
begin

- If person is  
online and busy,  
or offline,  
prompt that a  
message has been  
sent to that  
member



## APPENDIX F

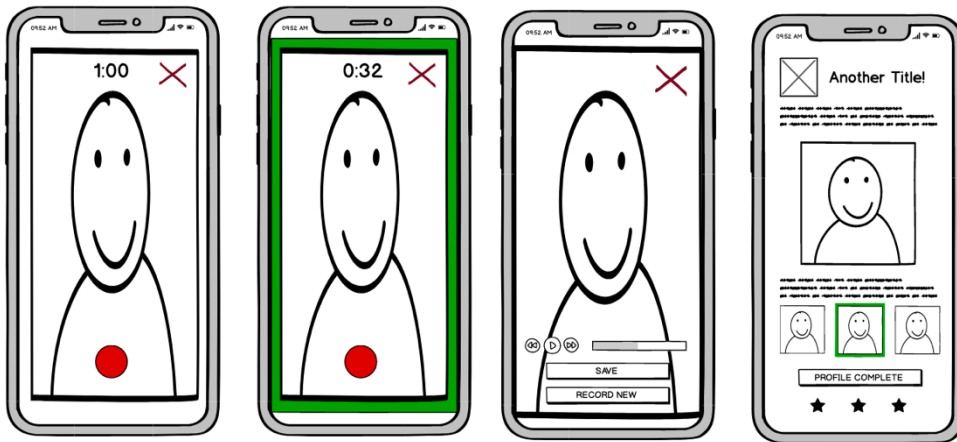
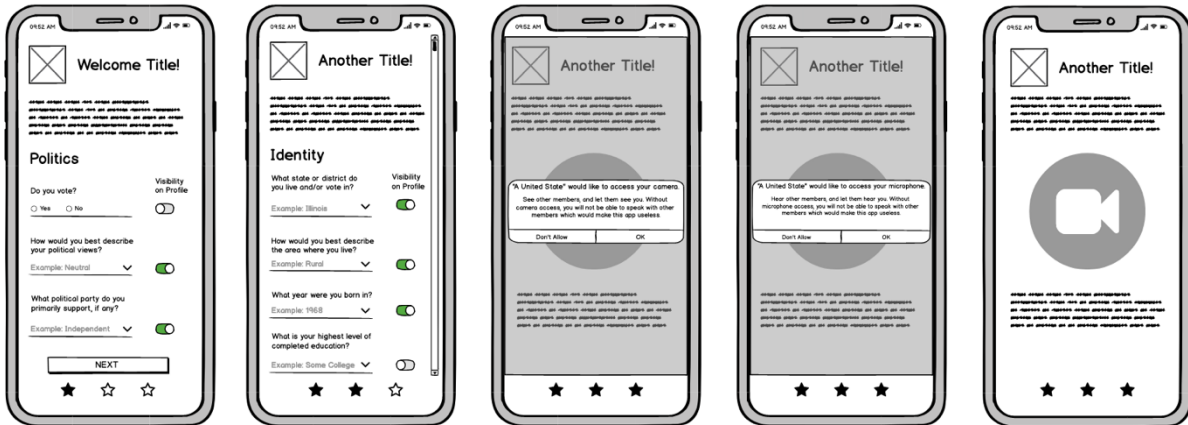
### DIGITAL WIREFRAMES

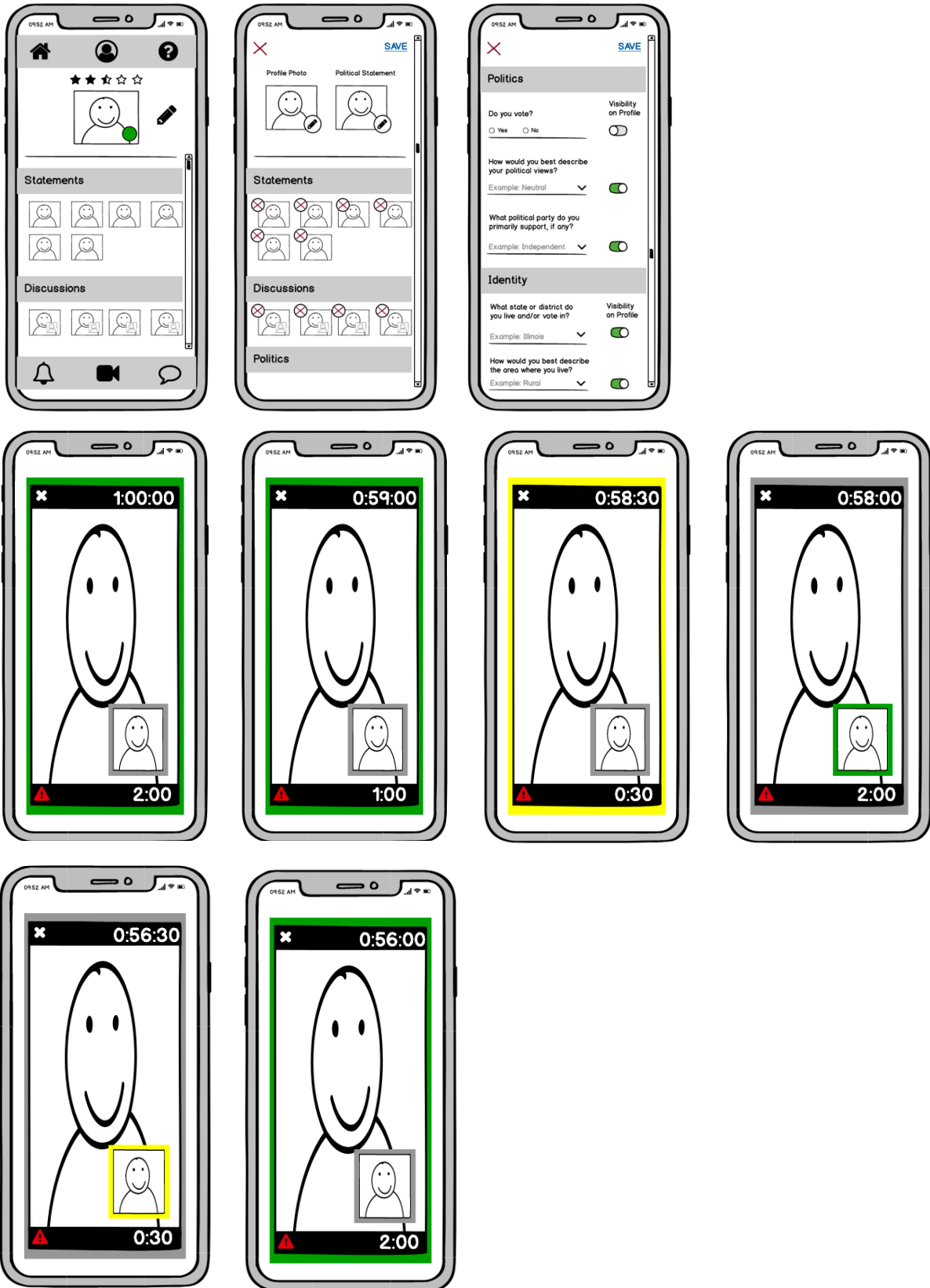


### BEGIN INVISIBLE



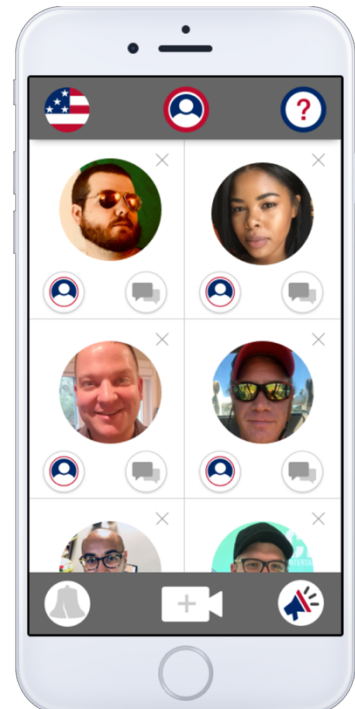
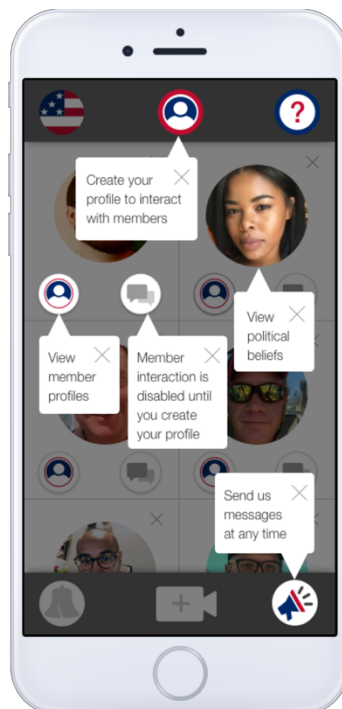
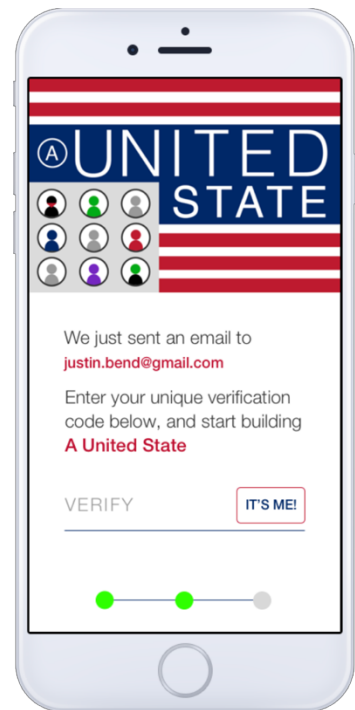
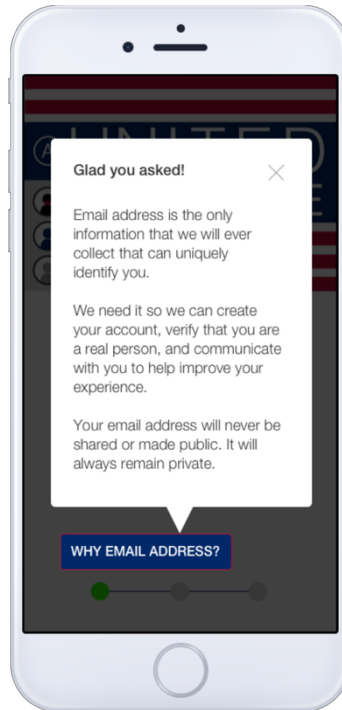
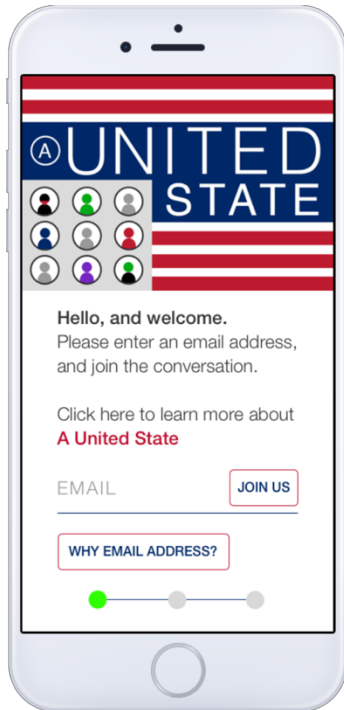
## CREATE PROFILE

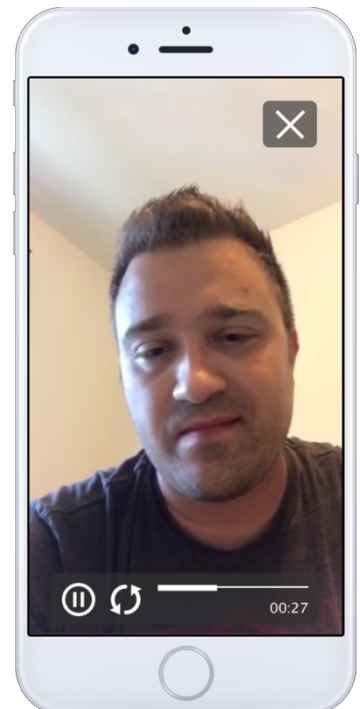
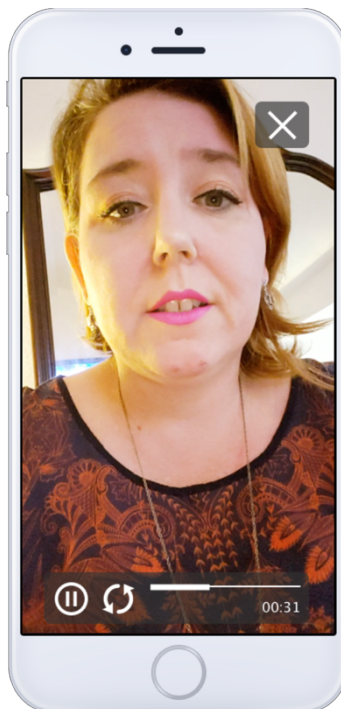
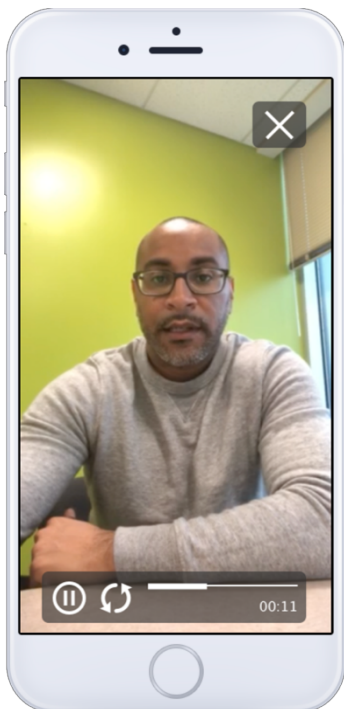
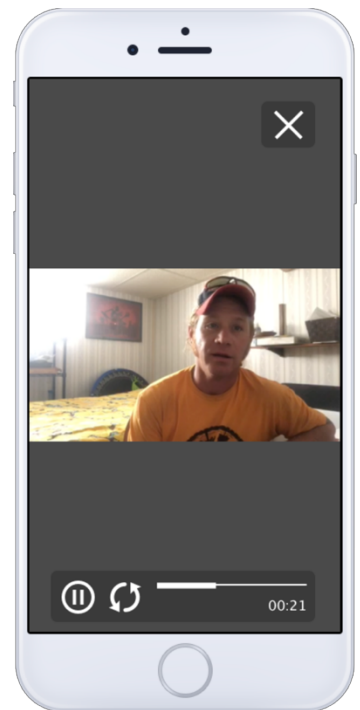
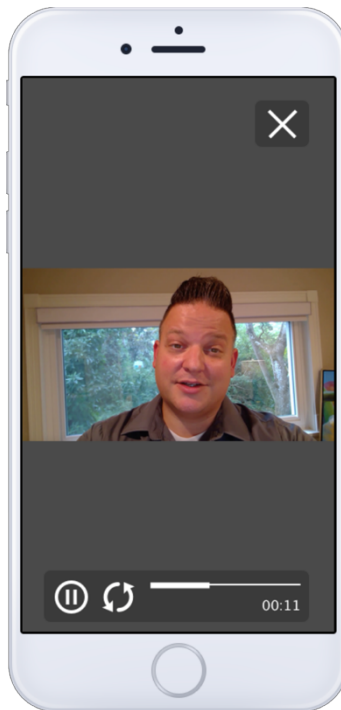
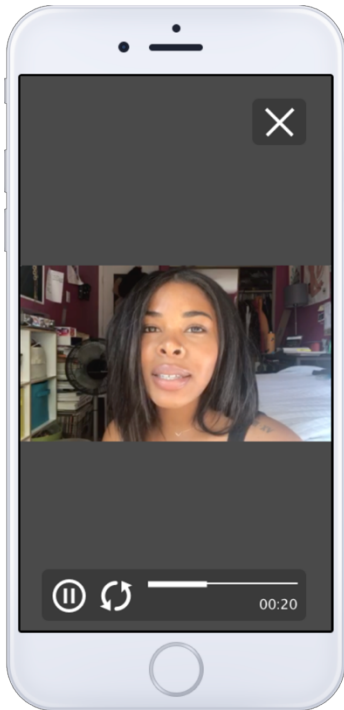


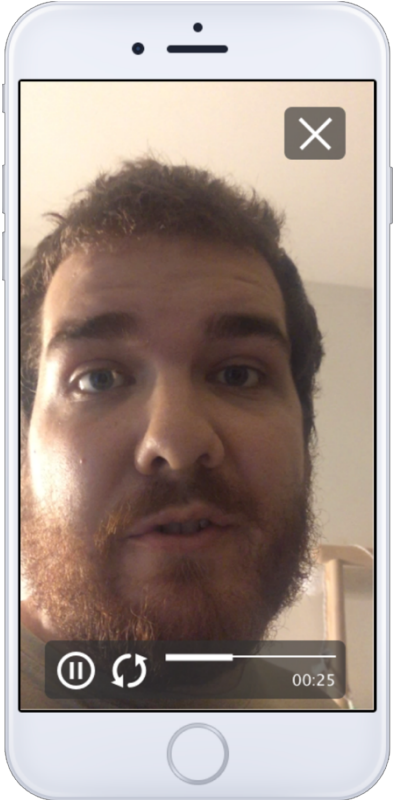
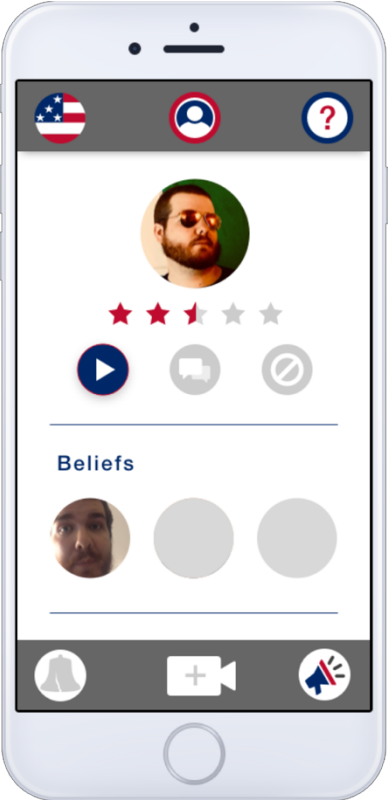
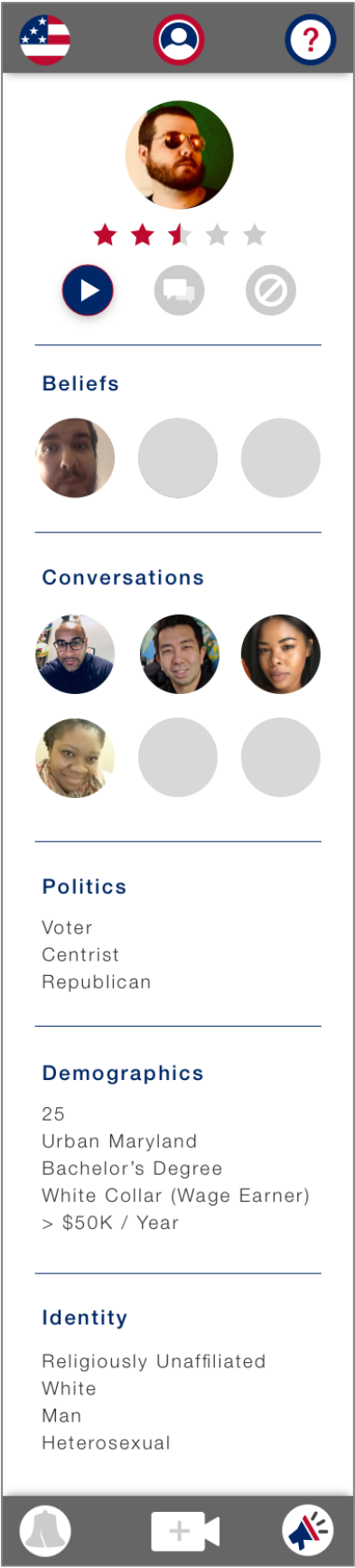


## APPENDIX G

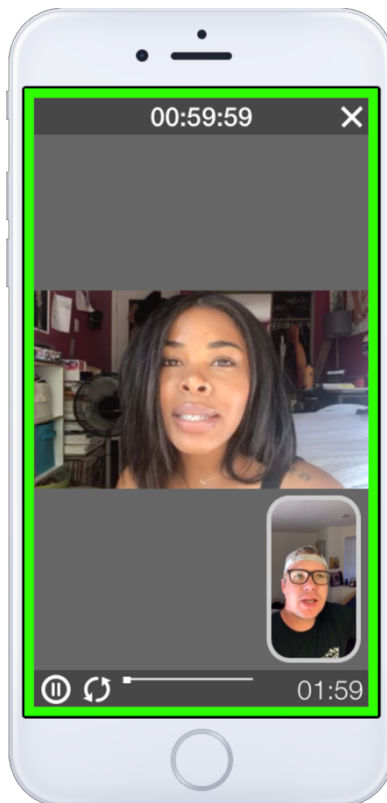
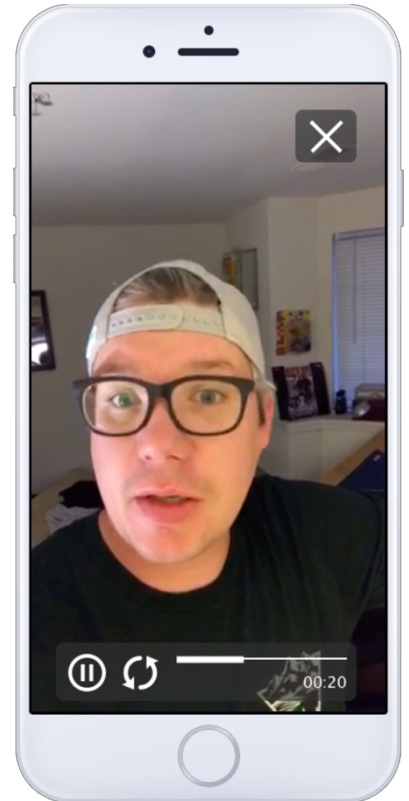
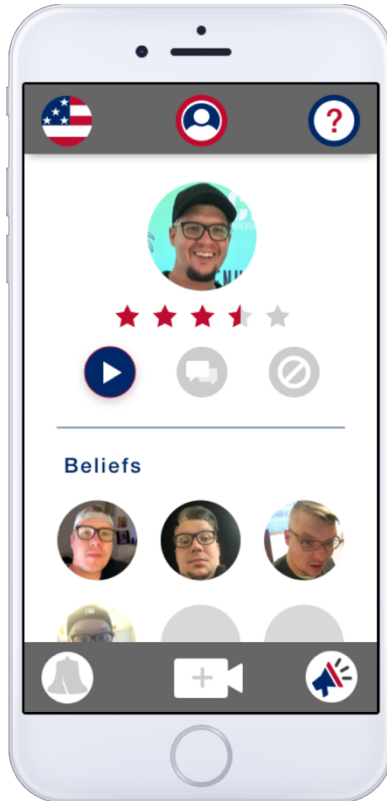
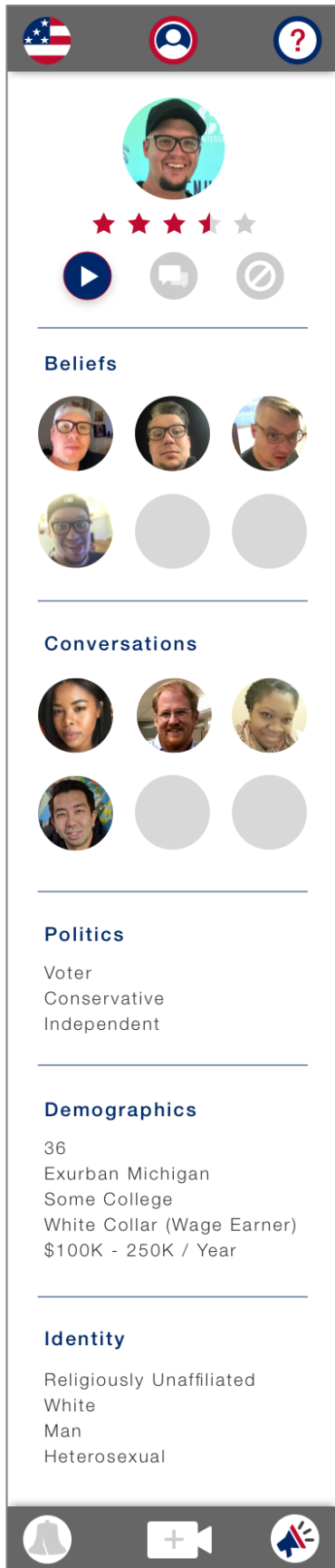
### INTERACTIVE PROTOTYPE

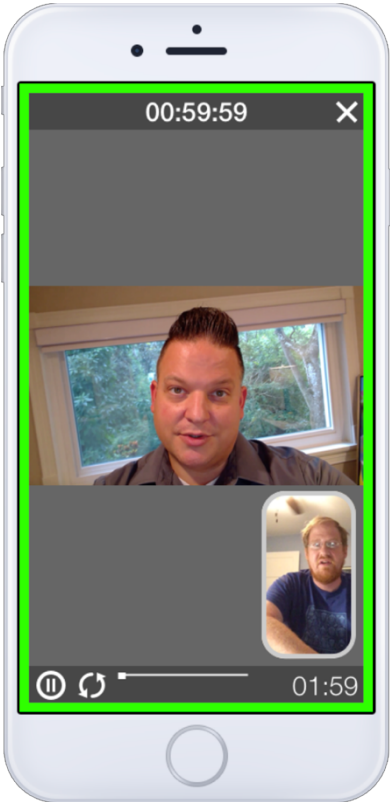
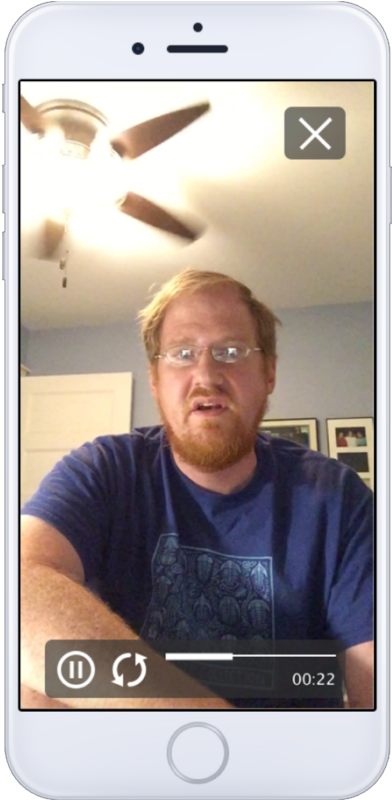
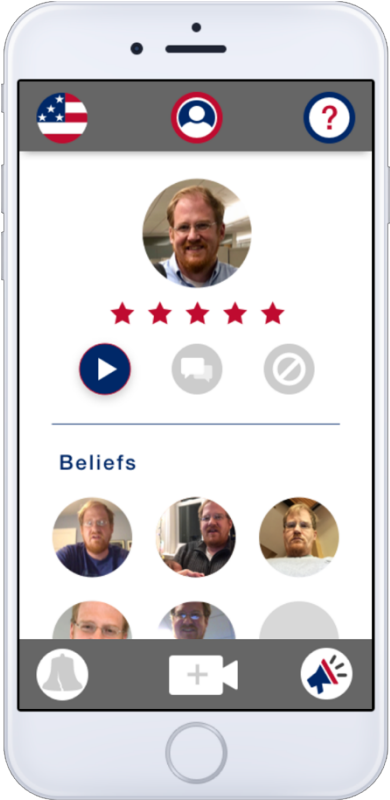
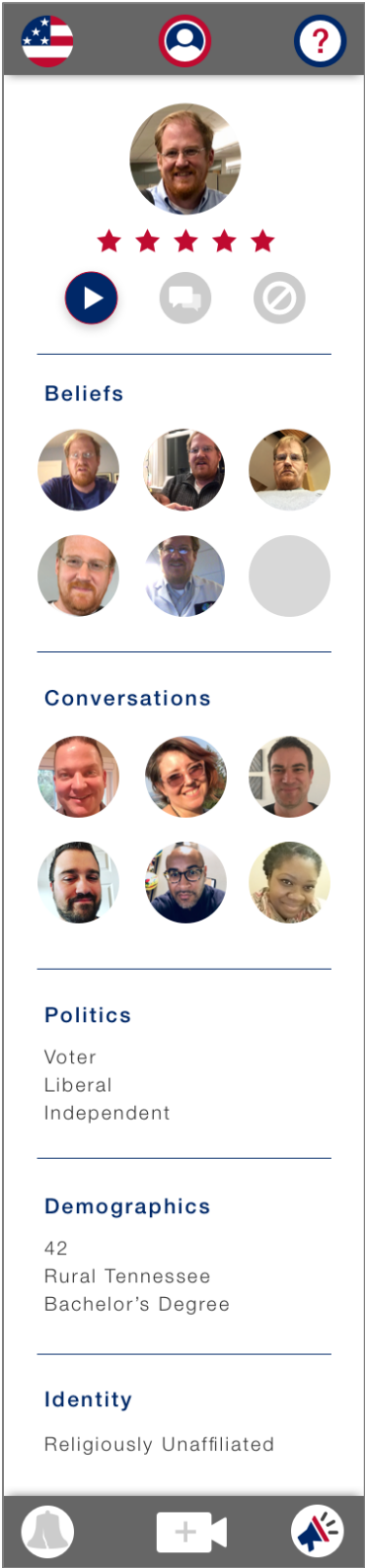




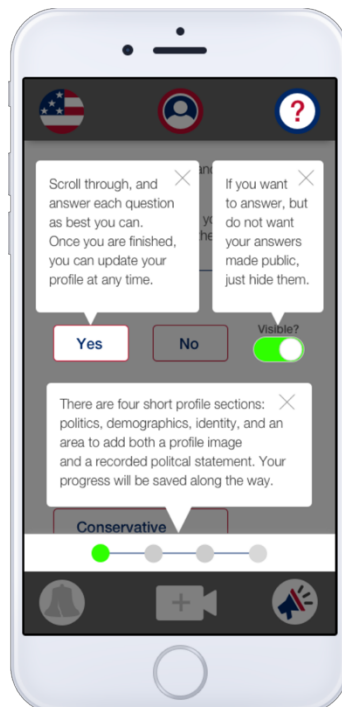
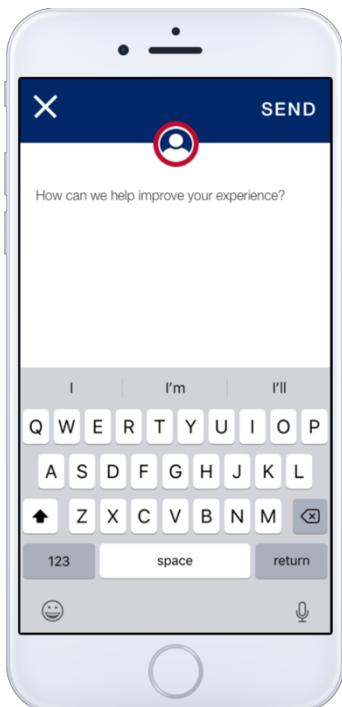
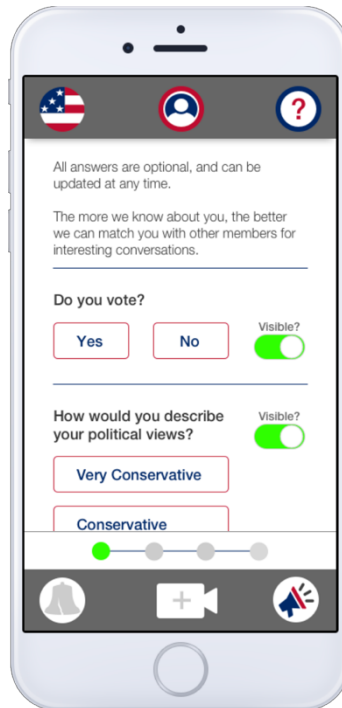

















All answers are optional, and can be updated at any time.

The more we know about you, the better we can match you with other members for interesting conversations.

---

**Do you vote?** Visible?

☒ Yes ☐ No





---




**How would you describe your political views?** Visible?

---

**What political party do you regularly vote for?** Visible?

---





---

**What state or district do you live and vote in?** Visible?





☒




ex: Washington DC

---

**How would you describe the area where you live?** Visible?

☒





---

**What state or district do you live and vote in?** Visible?

☒

ex: Washington DC

---

**How would you describe the area where you live?** Visible?

☒

---

**In what year were you born?** Visible?

☒

ex: 1984

---

**What is your highest level of completed education?** Visible?





☒




---

**What do you do for a living?** Visible?

☒

---





Go Back

What state or district do you live and vote in?

Visible?☒

Maryland (MD)

How would you describe the area where you live?

Visible?☒

Rural

Exurban (commuter town)

**Suburban (urban adjacent)**

Urban

In what year were you born?

Visible?☒

1982

What is your highest level of completed education?

Visible?☒

Some High School

High School Graduate / GED

Some College

Trade / Tech / Vocational

Associate Degree

**Bachelor's Degree**

Master's Degree

Doctoral Degree

What do you do for a living?

Visible?☒

Student

**White Collar (wage earner)**

Blue Collar (wage earner)

Self-Employed

Military

Government (fed / state / local)




Homemaker




Retired

Unable to Work

Unemployed

Save and Continue





Go Back

What is your annual income?




Visible?☒




Less than \$50,000

\$50,001 - \$100,000

\$100,001 - \$250,000

\$250,001 +





Go Back

What is your annual income?

Visible?☒

Less than \$50,000

\$50,001 - \$100,000

\$100,001 - \$250,000

\$250,001 +

How would you describe your religious identity?

Visible?☒

Unaffiliated

Atheist / Agnostic

Christian

Muslim

Jewish

Other / Minority

How would you describe your racial identity?

Visible?☒

Hispanic / Latino

Native American

Asian

Black / African-American

Native Hawaiian / Pacific

White

How would you describe your gender identity?

Visible?☒

Woman

Man

Non-Binary

How would you describe your sexual identity?




Visible?☒

Homosexual

Heterosexual

Pansexual

Save and Continue



Go Back

What is your annual income? Visible? ☒

Less than \$50,000

\$50,001 - \$100,000

\$100,001 - \$250,000

\$250,001 +

How would you describe your religious identity? Visible? ☒

Unaffiliated

Atheist / Agnostic

Christian

Muslim

Jewish

Other / Minority

How would you describe your racial identity? Visible? ☒

Hispanic / Latino

Native American

Asian

Black / African-American

Native Hawaiian / Pacific

White

How would you describe your gender identity? Visible? ☒

Woman

Man

Non-Binary

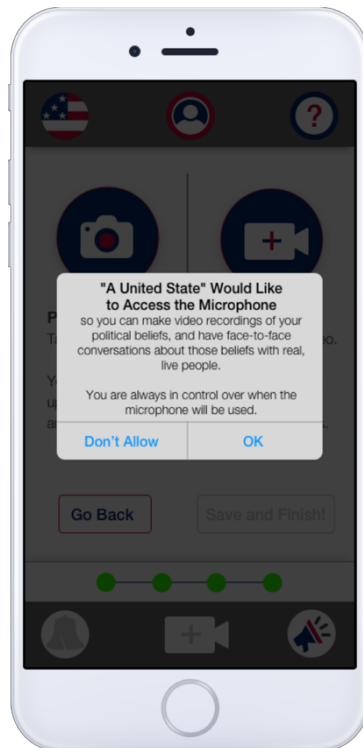
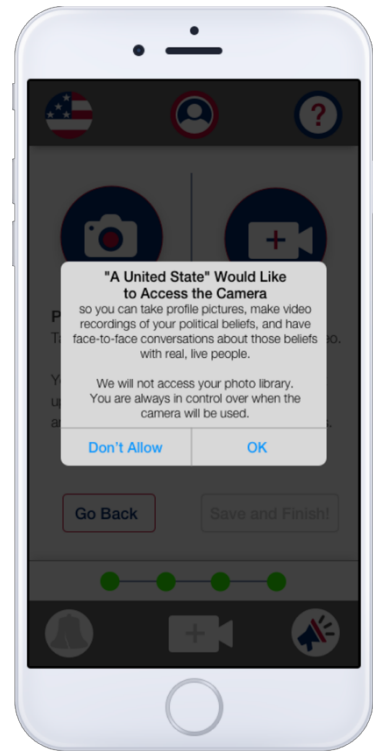
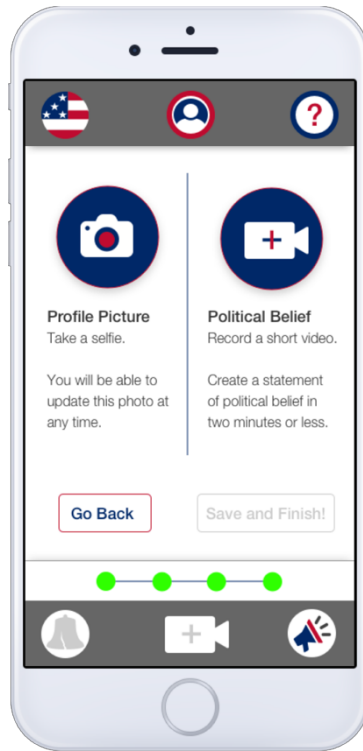
How would you describe your sexual identity? Visible? ☒

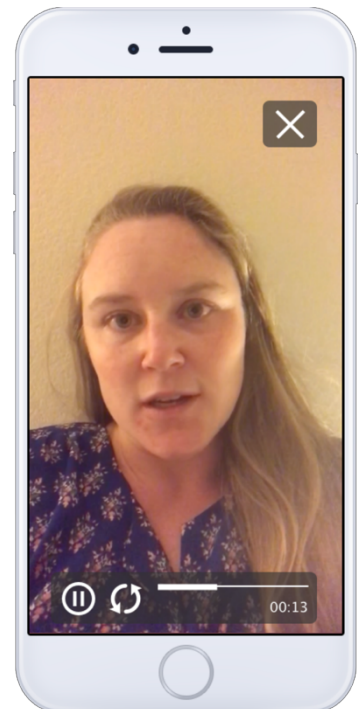
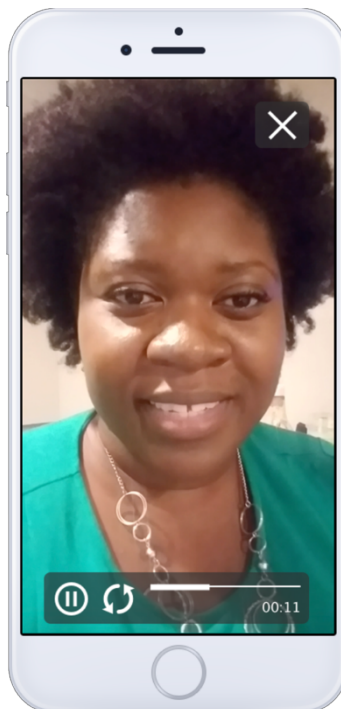
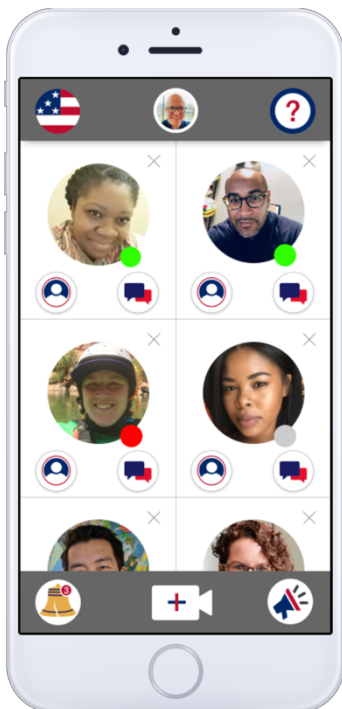
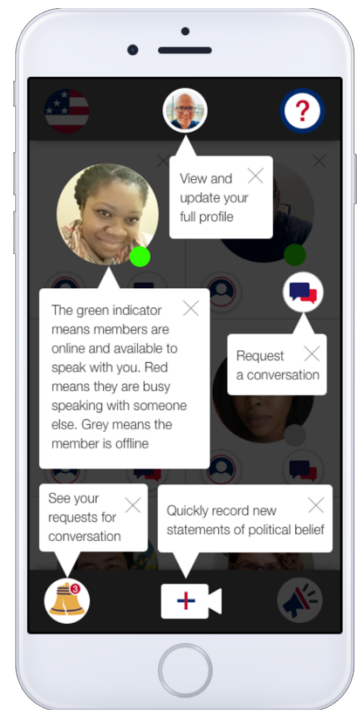
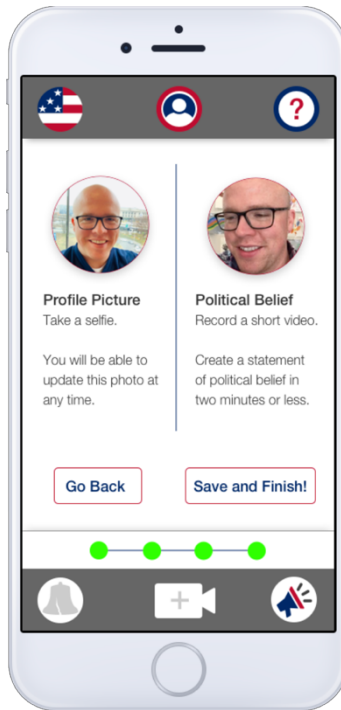
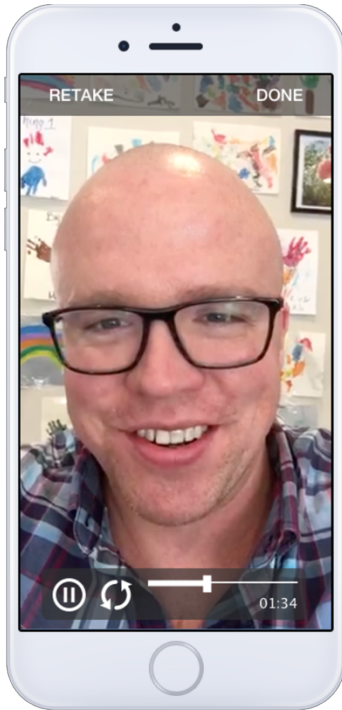
Homosexual

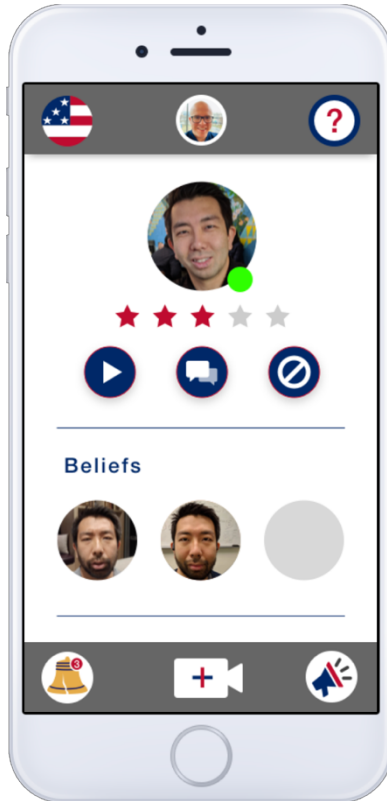
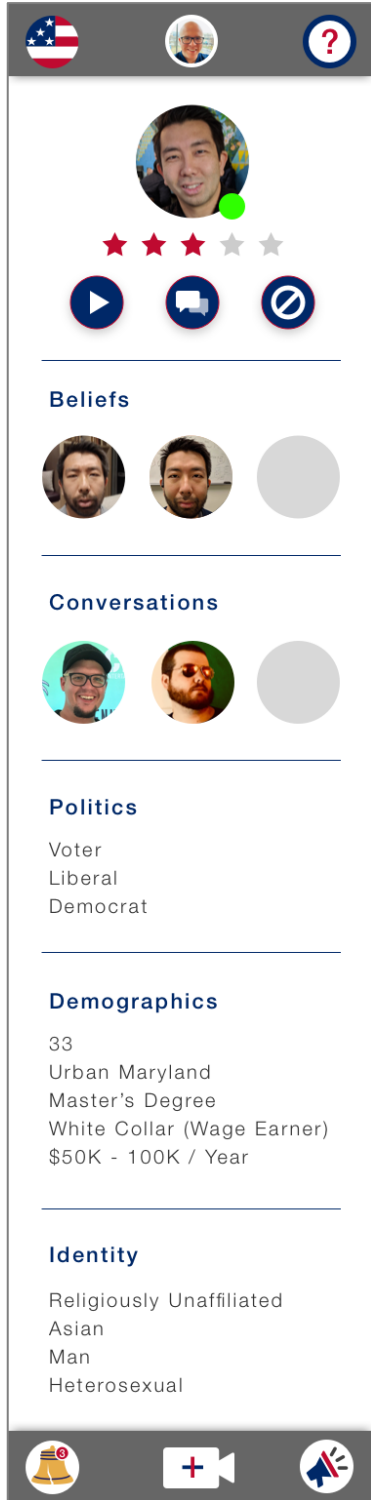
Heterosexual

Pansexual

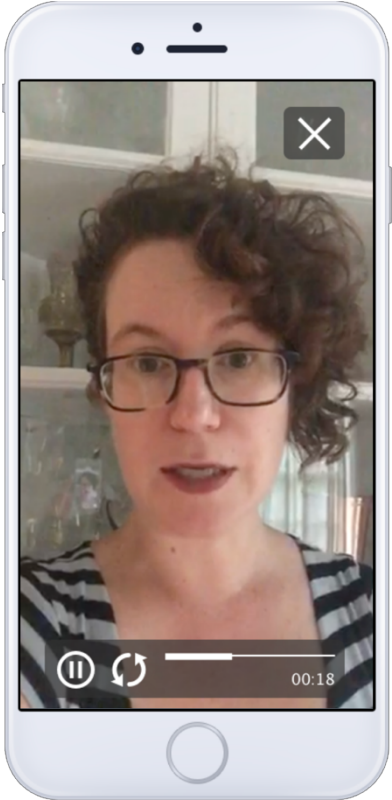
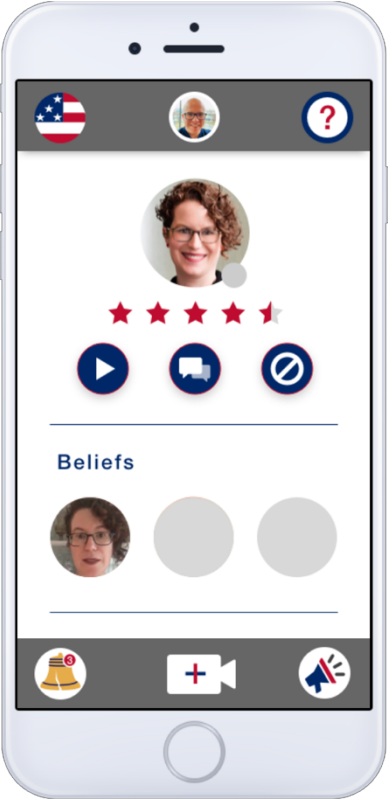
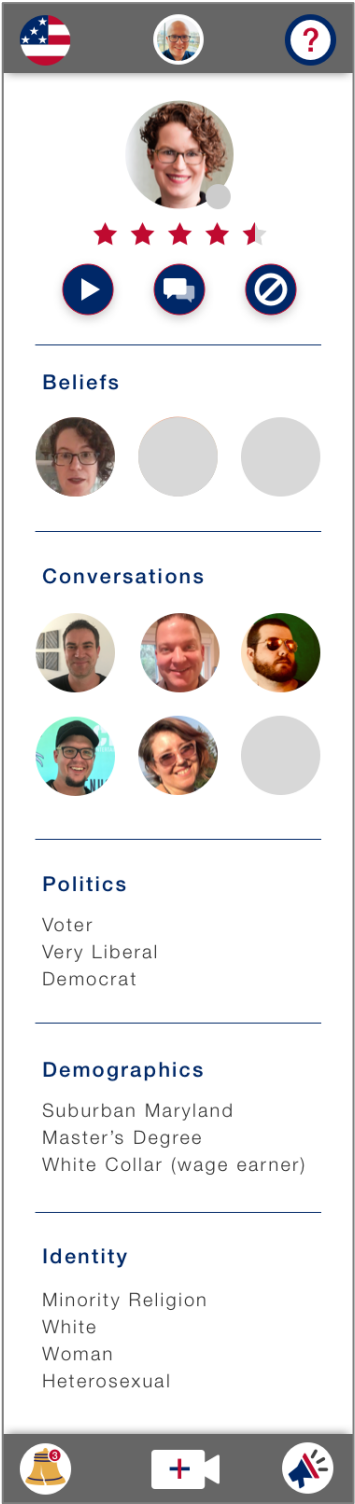
Save and Continue

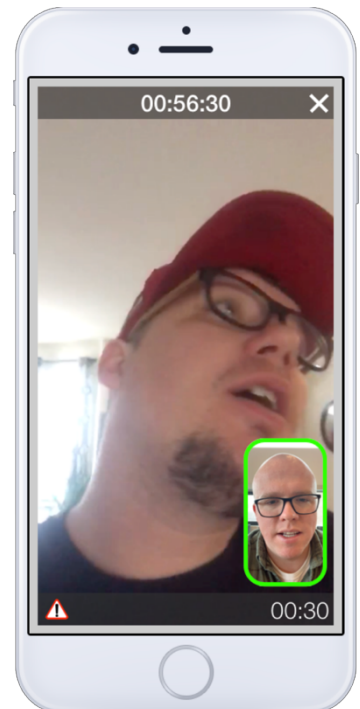
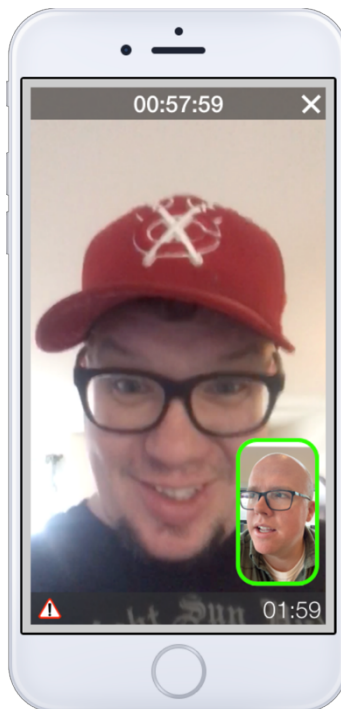
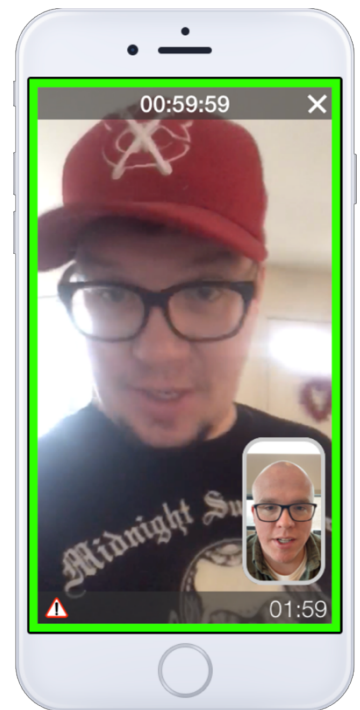
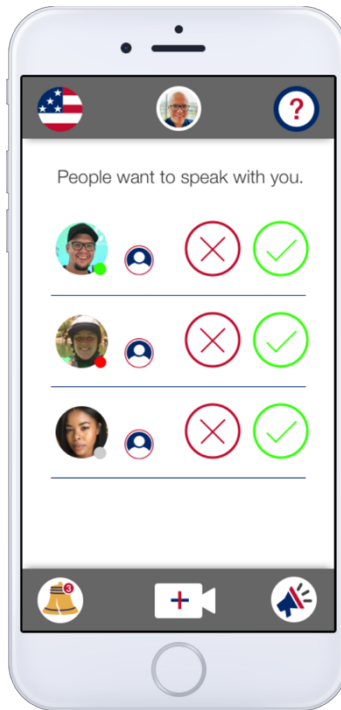
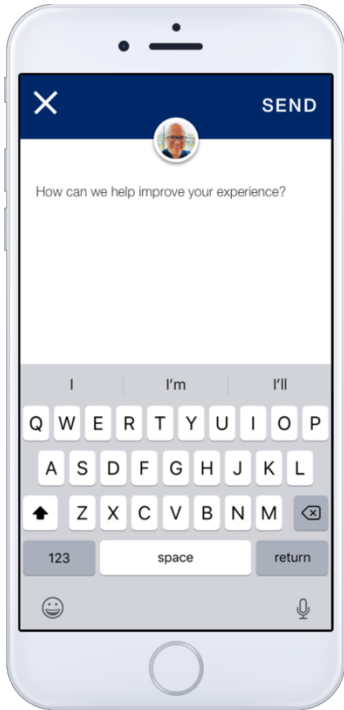




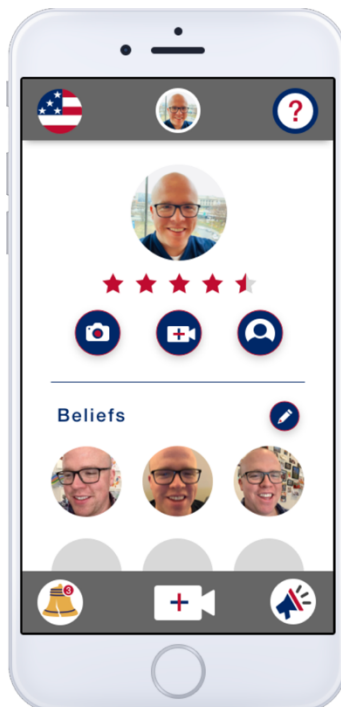
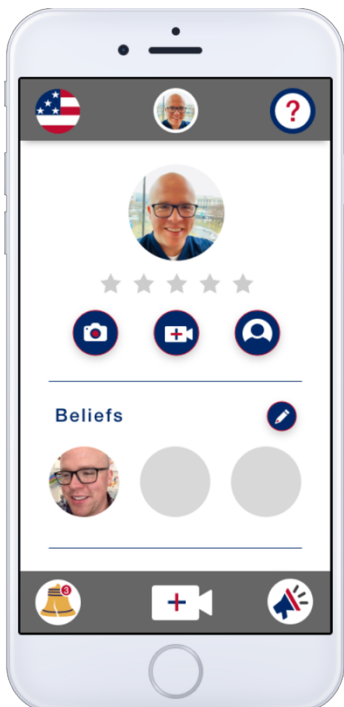
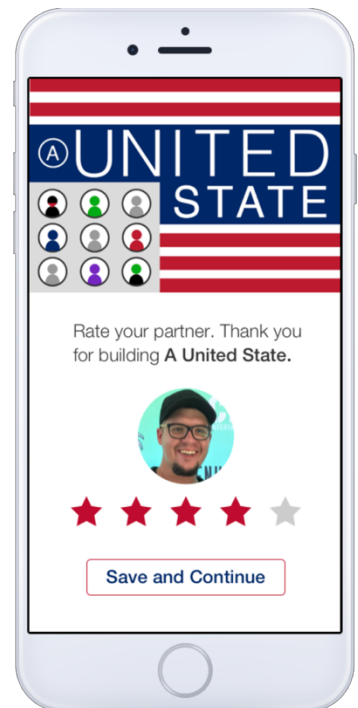
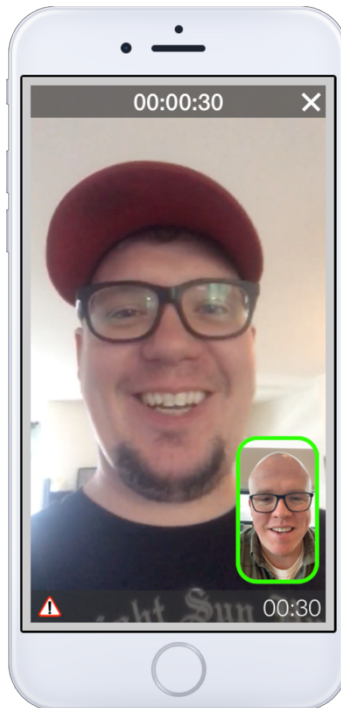


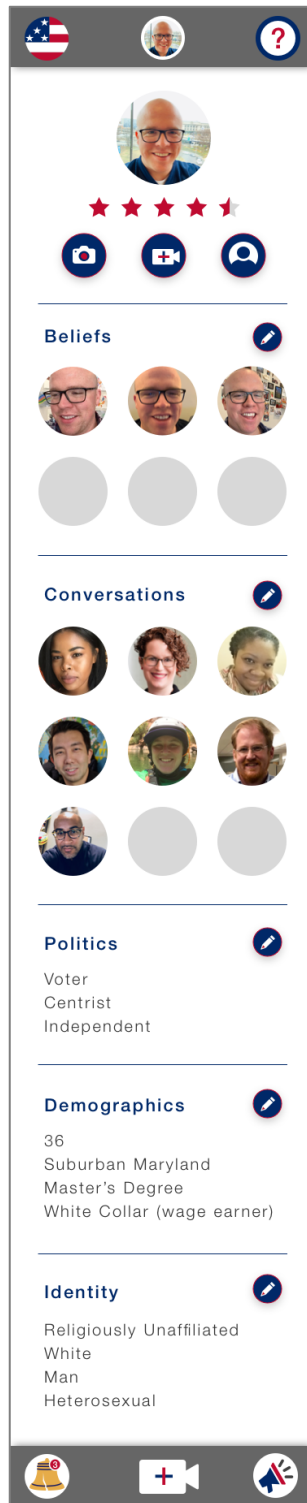
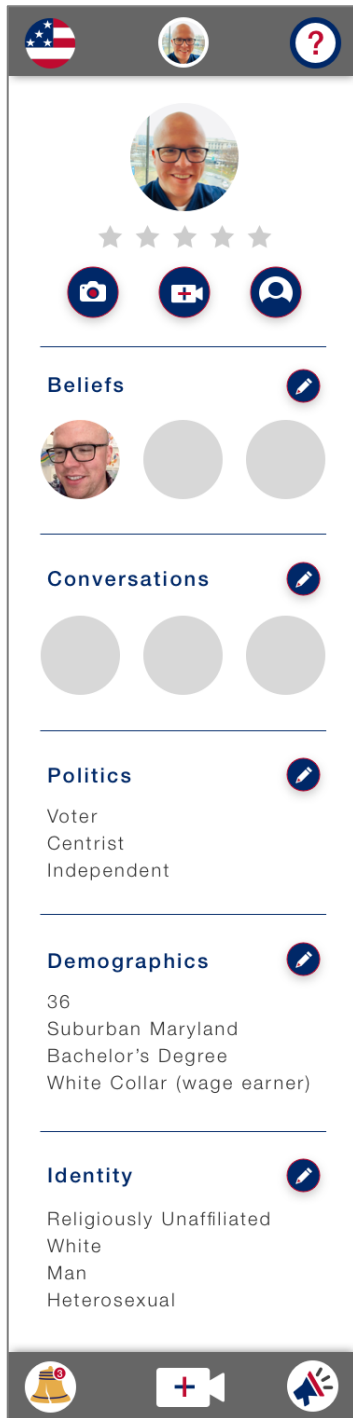




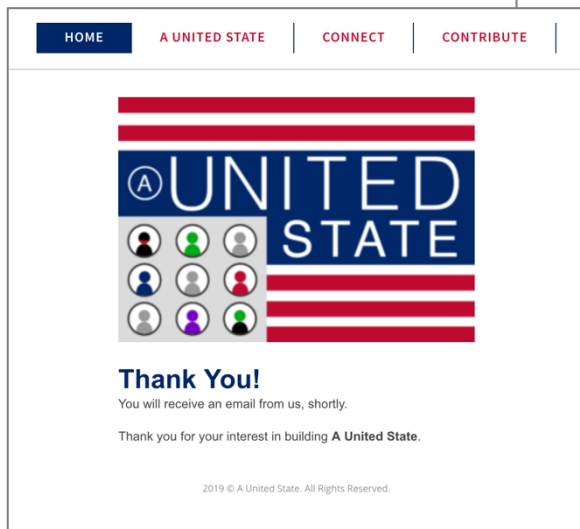
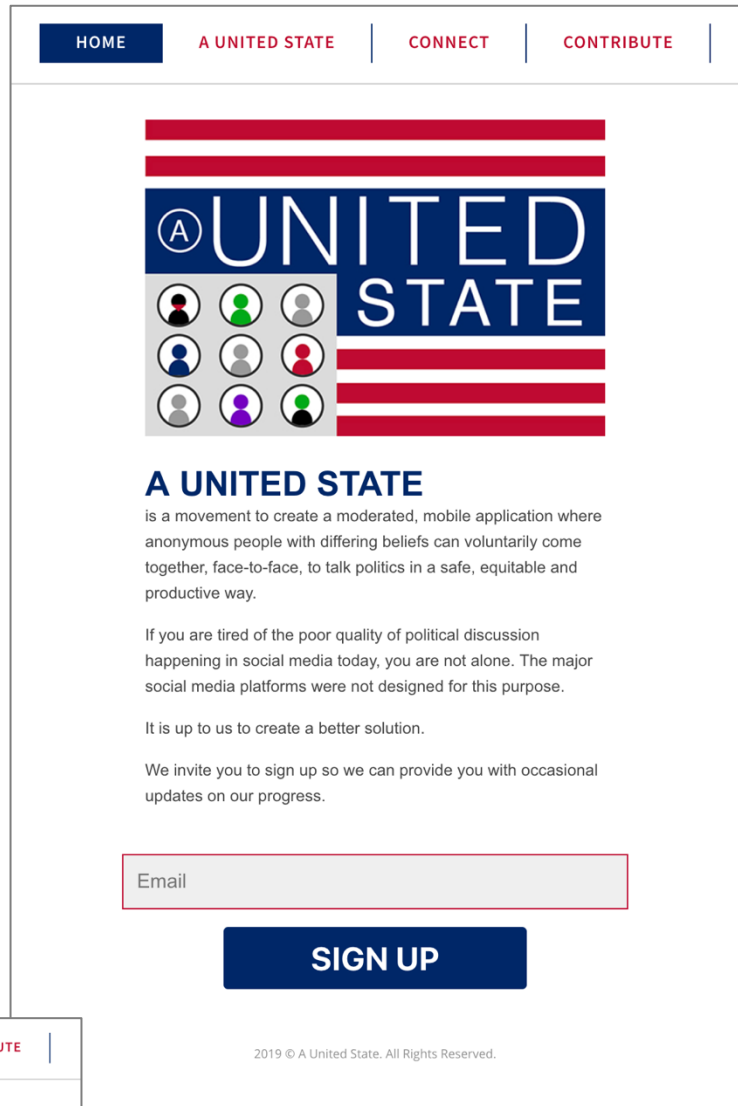








## APPENDIX H

PROMOTIONAL WEBSITE: [www.aunitedstate.org](http://www.aunitedstate.org)



## Hello.

Thank you for signing up. Thank you for building **A United State**.

I am working to develop a mobile application that will moderate human behavior in a political discussion, guaranteeing equal speaking time for all participants, matching real and diverse members together based on differences of belief rather than similarities. The application will use the mobile device camera and microphone to facilitate face-to-face conversations between people in the United States, eliminating cross-talk, protecting member identification and privacy, and safeguarding against abuse.

This work is the product of my thesis project to earn my terminal **Master of Fine Arts degree in Integrated Design** from the University of Baltimore.

As your reward for signing up and providing your email address while this project is in its infancy, you will be given free and immediate registration and use for life once the application is fully developed and available for use.

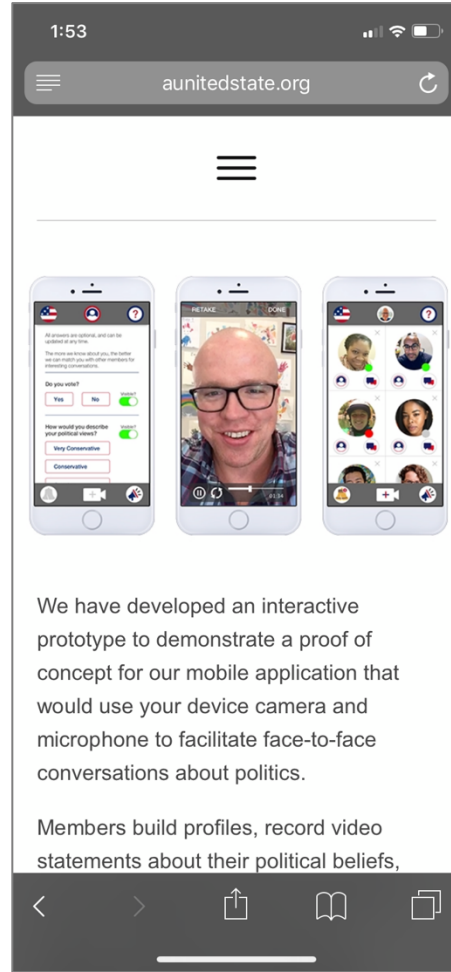
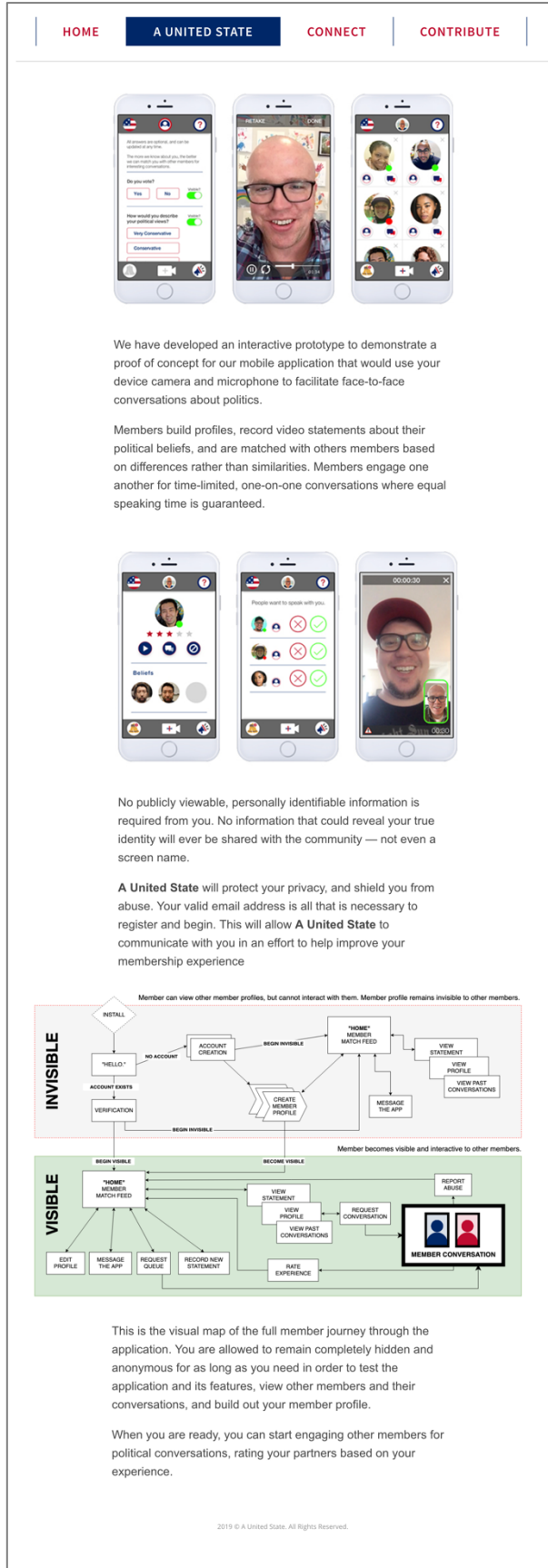
I have created an interactive prototype as a proof of concept. If you want to learn more about this project, request a prototype demonstration, make a financial contribution, or if you just want to reach me with feedback or insights to help improve this work, please contact me through my website at <http://www.aunitedstate.org/>

I hope to provide you with progress updates along the way.

Thank you for your time. I look forward to staying in touch.

**Justin Bend**  
Founder / Designer

[www.aunitedstate.org](http://www.aunitedstate.org)



[HOME](#)
[A UNITED STATE](#)
[CONNECT](#)
[CONTRIBUTE](#)

## CONNECT

**A United State** will be a space for online political conversation that is "of the people, by the people, for the people." That means we need to hear from you!

If you have an idea to share with us, or a question about the project, or if you would like to request a meeting to see a demonstration of our interactive prototype — please, do not hesitate to contact us.

We need your feedback to make this a success!

**FULL NAME**

**EMAIL ADDRESS**

**YOUR MESSAGE\***

**SUBMIT**

2019 © A United State. All Rights Reserved.

1:53
aunitedstate.org

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We need your feedback to make this a success!

**FULL NAME**

[HOME](#)
[A UNITED STATE](#)
[CONNECT](#)
[CONTRIBUTE](#)

## Thank You!

We got your message. Thank you for contributing your voice.

Thank you for building a Great Community.

Thank you for building **A United State**.

"The ties which hold men together in action are numerous, tough and subtle. But they are invisible and intangible. We have the physical tools of communication as never before. The thoughts and aspirations congruous with them are not communicated, and hence are not common. Without such communication the public will remain shadowy and formless, seeking spasmodically for itself, but seizing and holding its shadow rather than its substance. Till the Great Society is converted into a Great Community, the Public will remain in eclipse. Communication can alone create a great community."

**John Dewey**  
*The Public and Its Problems*  
1927

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