



Magenta

Making Democracy Fun Again

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Executive Summary

Young adults below the age of thirty-four make up nearly 40% of the eligible voter population, yet they report being underserved by available political information sources, negative experiences with politics, and engage less relative to other age groups. If continued, these trends may feed the rapidly increasing polarization and misinformation that contributes to democratic decline. Our research aims to disrupt these trends at the local political level where reported trust and efficacy is highest yet engagement remains low. Informed by an empirical and user-centered methodology, we designed an effective mobile application and a reproducible user-centered development framework to support and inspire constructive local political engagement among young adults.

We studied University of California, Berkeley students' experiences with local political information and engagement using a combination of qualitative and quantitative research methods. Informed by opportunities grounded in the study of local student perspectives, we designed a mobile application for young adults that provides them with highly accessible local political information. We validated a prototype among students using user experience research methods to ensure our application design facilitated positive associations with local politics and delivered users the information they need to confidently engage.

Our final prototype provides a fun and rewarding experience for young adults that will enable positive attitudes toward local politics and equip them with the information they need to engage confidently. Furthermore, our empirical and user-centered approach provides a highly reproducible process for rapidly developing similarly effective solutions to diverse young adult populations nationwide.

Introduction

Our project builds on a growing body of research that seeks to understand and address polarization, misinformation, and lagging political engagement among young adults in the United States. Evidence suggests that the most effective opportunities for individuals to spark lasting and constructive political engagement lie with local politics. Access to local political information builds connections between young adults and their communities, and imbues them with the confidence necessary to engage locally where their individual efforts will have a more meaningful impact. We anticipate that more constructive engagement among young adults will have significant positive effects on democracy in the United States, mediating the presence of misinformation and decreasing polarization through positive community-based political engagement.

We adopted a mixed methods approach to ground our research in the local student perspective and provide strong, empirically supported evidence of both their challenges and potential solutions. Use of empirical methods increases the likelihood that our study can be successfully replicated among new populations. We combined our findings with user experience design methodologies to build a validated prototype of a mobile application that addresses students' lack of accessible political information and enables rewarding opportunities for local political engagement.

Background

The United States relies on its representative democracy to guarantee the freedom, peace and security of all its people. Citizens' participation is critical to elect qualified representatives responsible for delivering these guarantees, provide them with the feedback necessary to make informed decisions, and hold them accountable to maintain the integrity of our democracy (U.S. Citizenship and Immigration Services).

Increased misinformation and polarization in the United States have contributed heavily to concerns about democratic decline. An "explosion" of misinformation during the 2020 presidential election specifically aimed to spread false claims of voter fraud that significantly impacted citizens' faith and participation in the country's democratic system (Sanchez and Middlemass). Other reports consistently demonstrate these trends, such as a 2020 survey of 8,000 voters that found over a quarter of those who have skipped voting in a national election did so because they felt "nothing will change for people like them" and "the system is too broken to be fixed by voting" (Amelia Thomson-DeVeaux et al.). Polarization has played a key role in the subversion of the United States' democratic systems; 86% of respondents in a Pew Research Center poll agreed "Republicans and Democrats are more focused on fighting each other than on solving problems" and 78% said "there is too little attention to important issues facing the country" (*Americans' Dismal Views of the Nation's Politics*).

Young adults, ages eighteen to thirty-four, are especially vulnerable to misinformation and other political forces that damage trust in the democratic system. Young adults make up nearly 40% of the eligible voter population, yet have historically low turnout compared to older demographics (Ibreak). 81% of young adults polled by Pew Research Center said they do not trust the government to do what is right (*Americans' Views of Government: Decades of Distrust, Enduring Support for Its Role*). Even so, young adults feel there is potential for democracy to promote meaningful change. 1 in 5 young adults who did not vote in 2022 said they did not have enough information about the candidates or the voting process, and only 40% reported feeling well qualified to participate in politics despite many expressing an interest in doing so (Booth et al.). Only 47% of young adults reported actively seeking out news, indicating that strategic outreach is critical to efforts that seek to successfully increase political engagement among this demographic (*The 100 Million Project*).

Young adults report the greatest trust in local institutions, such as state governments and their neighborhoods, and a desire to improve democracy through their participation if adequate information resources were made available (Booth et al.). Reducing affective polarization may create opportunities to stimulate political engagement. In a study exploring the effects of reducing affective polarization, individuals reported being more receptive to interpersonal political engagement (Broockman et al.). Interpersonal political engagement is more easily achieved at the local community level. Studies that explored local politics reported that an individual's consumption of local news is strongly correlated with a sense of attachment to their community and greater political engagement (Barthel et al.).

A strategy that provides young adults access to the political information they need to feel confident participating and guides them toward local, community-based opportunities is likely to inspire political engagement. Local governments and institutions that young adults trust more present fewer barriers to entry, increasing the chance that efforts to promote political engagement will be met with similar success to those who already experience greater feelings of efficacy participating in local politics. Over time, positive and constructive political experiences among the sizable population of previously inactive young adults may help turn the tides on the polarization and misinformation that currently threatens democratic decline in the United States.

Methodology

Summary

Our project combines qualitative and quantitative research methods with user experience design methods to model a highly reproducible, rapid development process for effective political information tools that enable local political engagement among young adults.

Our combination of qualitative and quantitative research approaches brought into focus the most impactful and salient opportunities to enable local political engagement among students. To recruit for our study, we designed and distributed a pre-screening survey to a sampling frame consisting of self-selected research participants affiliated with University of California, Berkeley's Xlab. We used the following criteria for participant selection:

- Currently enrolled at the University of California, Berkeley
- Minimum of two years living in Berkeley
- Eligible to vote in Alameda County, CA

We began with sixteen (**N = 16**) semi-structured interviews to explore the following research questions:

- How do university students conceptualize and practice local community engagement?
 - What does it mean to be “engaged” in the local community?
 - What community activities do university students find engaging?
- How do university students conceptualize and practice local political engagement?
 - What does it mean to be “engaged” in local politics?
 - What political information do university students find engaging?
 - What political activities do university students find engaging?
- How do university students interact with information tools to learn about political issues and events?

Participants were sent an email inviting them to schedule an interview. Those who responded first were selected. Themes from our qualitative research informed the design of a survey that would quantitatively validate our findings among a much larger sample of one hundred fifty-five (**N = 155**) students from the same sampling

frame. Survey participants also responded to an open invitation. Convenience sampling was employed due to limited study resources.

We used affinity mapping to uncover themes in our interviews. We identified the most salient challenges to local political engagement and the most favored political information gathering strategies. These findings inspired the design of a mobile application that delivers highly accessible political information to students in a positive and engaging format. We conducted usability testing among a sample of seven (**N = 7**) students chosen from participants who completed our semi-structured interview. Our usability testing evaluated how well our design aligned with users' political information needs and whether it positively impacted their interest in engaging with local politics.

Qualitative Research

Research Goals

Our qualitative research consisted of semi-structured interviews that helped us learn from student experiences engaging with local community, politics, and political information tools. Our analysis of these findings, aided by the use of affinity mapping, grounded our understanding of the obstacles to local political engagement and current student preferences for consuming related information. Our analysis informed a solution that would deliver a reliable, fun and engaging political information experience.

Study Design

The semi-structured interview segment of the study was designed to gather university students' attitudes, perceptions, and behaviors with respect to local community and politics. Our questions organically explored various aspects of participants' political experiences, such as how individuals made sense of political representatives or candidates and the policies they advocated or supported. Additionally, we examined to what degree navigating the political landscape was a challenge for participants and gathered potential strategies for enhancing political sense-making among community members.

The interviews were organized into three sections that corresponded to our research questions. We probed participants' experiences with local community and politics to gain a more comprehensive understanding of their context and uncover shared themes. The final section consisted of two activities in which 1) students were asked to interact with different media posts regarding local current events occurring within

People's Park to observe how students interact with political information and 2) a voting activity to encourage participants to simulate and reflect on how city council members voted on previous legislation. This structure aimed to directly observe participants' political sense-making process relative to their stated views and experience.

Our qualitative research helped evaluate our theories about how students might engage with local politics and related information. We used our findings to inform the design of a solution to address the lack of adequate local political information available to young adults. We used affinity mapping to analyze interview data for overlapping and important themes, noting key findings that would help us understand obstacles to local political engagement and potential solutions.

Quantitative Research

Research Goals

The survey administered for this phase of our research expanded the findings from our qualitative research and enabled us to validate them further with a much larger sample of students. Analysis of our survey results helped us develop features of the mobile application solution inspired by our qualitative research, such as the questions featured in our political persona quiz and the personas themselves. This quantitative research process will be implemented in the final product to continuously monitor changes in student experiences, needs, and preferences as the local community evolves over time. Significant changes in the pattern of responses could trigger a study of the student population; the new results could then inform a new iteration of the application's design that better accommodates user needs and preferences.

Study Design

Our quantitative research adapts both our research questions and themes gathered from our qualitative research, converting some responses into numeric measurements that can be incorporated in statistical analysis. Statistical methods may add validity to our findings, and reveal latent trends in our data that were not captured in our qualitative research.

Survey Question Preparation

The process of crafting survey questions began with insights gleaned from qualitative research interviews conducted by the research team. These interviews

provided valuable understanding of the target audience's preferences, behaviors, and needs, which were used to formulate relevant and meaningful survey questions. The aim was to ensure that the questions were clear, concise, and aligned with the research objectives, enabling the collection of data that could strengthen and deepen our understanding.

Pilot Testing

Before distributing the survey to a larger audience, a pilot testing phase was conducted with ten participants. This step was crucial in assessing the completion time and user experience of the survey instrument. Feedback from pilot testing helped identify any ambiguities or issues with the questions, leading to modifications that improved the survey's clarity and usability.

Survey Distribution

The survey was distributed using various channels, including Google Forms on University of California, Berkeley online communications platforms and later through the Xlab survey recruitment network. This broad distribution strategy aimed to reach a diverse pool of respondents and gather a more representative sample. By leveraging both university-specific platforms and external networks, the research team maximized the potential for collecting comprehensive and varied responses.

Data Collection and Cleaning

Once responses (N = 156) were collected, they were merged into a single dataset for analysis. To ensure the quality and reliability of the data, rigorous cleaning procedures were implemented. This involved identifying and removing null values, inconsistencies, and any other data errors that could compromise the integrity of our dataset and later analysis.

Dimensionality Reduction

The resulting dataset offered a large number of variables for potential analysis. Dimensionality reduction techniques were employed to identify the most influential of these variables to include in our statistical models while retaining essential information. Principal Component Analysis (PCA) was chosen as a method to reduce the number of dimensions and identify underlying patterns or structures within the data, facilitating further analysis.

Clustering Analysis

Unsupervised K-means clustering was utilized to identify distinct personality clusters within the dataset. This analysis aimed to group respondents based on similarities in their survey responses, allowing for the identification of distinct user segments or clusters. The optimal number of clusters was determined using the Elbow Technique, which helped identify the most meaningful partitioning of the data into clusters.

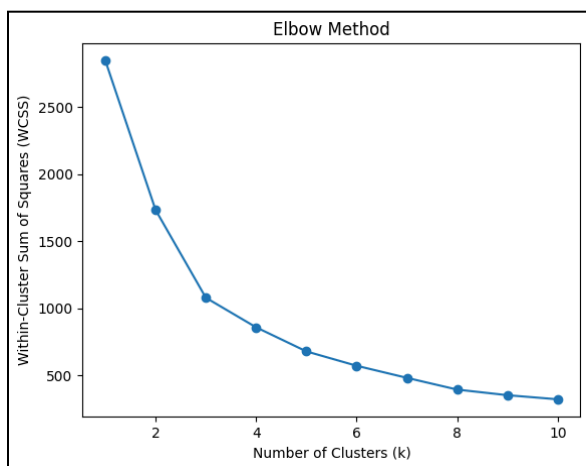


Fig (above)- Elbow Method Graph

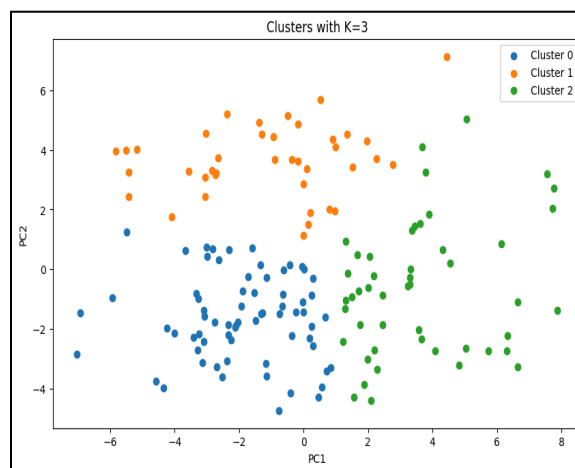


Fig (above)- K-means Cluster Plot

Feature Selection

To identify the most influential survey questions for clustering analysis and subsequent modeling, three feature selection techniques were applied: SelectKBest with ANOVA F-Test, Random Forest Feature Importance, and Recursive Feature Elimination. By comparing the results across these techniques and identifying common features, we identified a set of ten critical survey questions that produced the most distinct and differentiated clusters, guiding the development of targeted interventions or strategies based on user segmentation.

Integration of Methods

The decision to design a mobile application as a solution stemmed from a combination of qualitative and quantitative insights. Qualitatively, it became evident that there was a gap in the availability of information tools that allowed busy students to understand and confidently engage in local politics. The tools users preferred integrated seamlessly into their daily lives, keeping them informed and

engaged while on the go. This was particularly true for students and other individuals who felt disconnected from their local community and political institutions. Qualitative research highlighted the need for a solution that not only provided critical information but also offered a streamlined and engaging design, acknowledging the busy nature of the target audience's lifestyles and their concerns about negative experiences with politics. Quantitative data further supported this by revealing that the majority of the target audience preferred social media over traditional channels like email or websites. Additionally, the survey data highlighted unique clusters within the target user group, emphasizing the importance of mindfully catering to diverse needs and preferences.

In terms of feature selection, the focus was on creating a streamlined experience that would appeal to each of the identified clusters. By narrowing down the target users to those who were unengaged and lacked the necessary tools, the team could prioritize features that would resonate the most with them. This included features like a personality quiz, personalized profiles with collectible badges, policy explainers, and a daily digest news feed. These features were chosen not only for their appeal to the target audience but also for their potential to keep the app fun, marketable, and continuously engaging.

The iterative nature of the development process was also emphasized, both qualitatively and quantitatively. Recognizing that student populations are dynamic and their needs evolve over time, the team understood the importance of continuous updating and periodic re-study. Qualitative insights highlighted the potential for shifts in platform usage, such as the rise and fall of platforms like TikTok, while quantitative data served as a monitoring tool to detect changes in user preferences and behaviors. This iterative approach ensures that the app remains relevant and effective in meeting the evolving needs of its users.

Finally, the inclusion of features like the personality quiz and personas was instrumental in shaping the app's design and functionality. These tools not only provided inspiration for features, but also helped to identify key characteristics and preferences within the target audience that informed feature development. By analyzing survey data alongside qualitative insights, the team could create personas that accurately reflected the diversity within the user base, informing decisions about feature prioritization and multiple corresponding user flows.

The combination of qualitative and quantitative approaches allowed for a decision-making process grounded in user insights, resulting in a reproducible research framework and an effective mobile application solution tailored to the needs and preferences of our target audience.

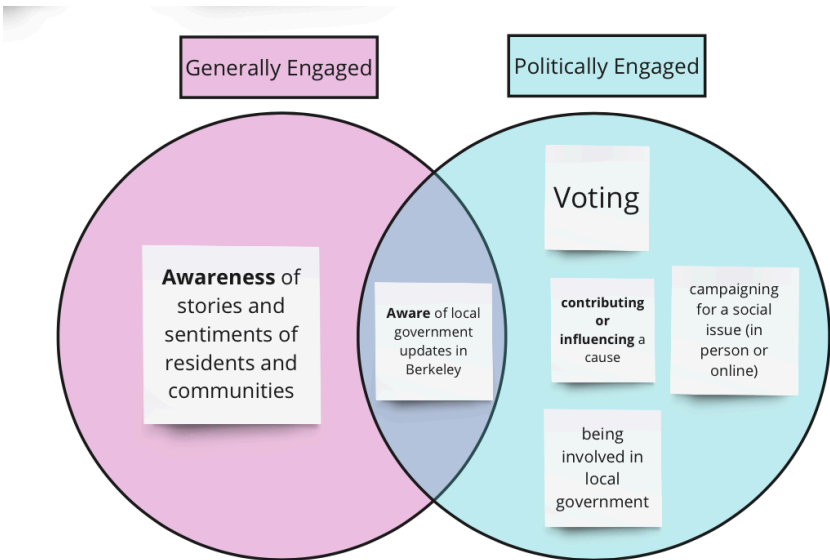
Results

Our qualitative research sought to understand: 1) how students conceptualize and practice local community engagement, 2) local political engagement, and 3) how they interact with information tools to learn about political issues and events. In addition, the activities in our study allowed us to observe students interacting with popular local political information tools and political processes to learn from the aspects of the sense-making process they found most meaningful and engaging.

Qualitative Research

Key Finding 1: General Engagement != Political Engagement, but one can lead to the other

Many students consider themselves “engaged” if they regularly seek an “awareness” of what’s happening around them. We identified themes that we conceptualized as two types of engagement, general vs political. General engagement refers to being aware and engaged with ongoing stories and sentiments of residents, communities, and local government in Berkeley. Political engagement refers to contributing or influencing a cause, such as voting, campaigning for a social issue, or being involved in local government. Some students also consider one to be politically engaged if they consistently consume local political content and possess a working knowledge of local politics without contributing to or influencing a cause.

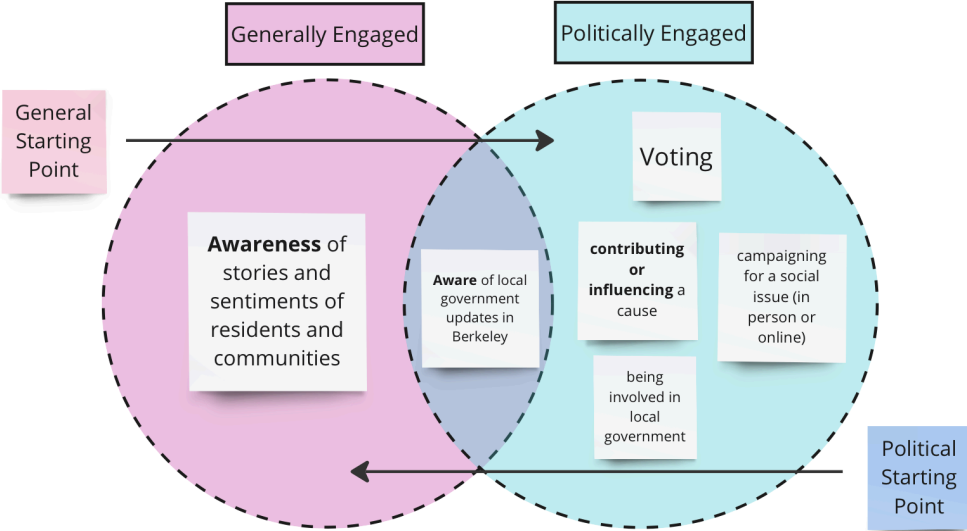


"I think I'm more engaged generally than I am engaged politically. The funny thing is I'm probably more engaged generally here than I ever was in my hometown [even though I was very politically active back at home]. I wouldn't say I'm politically engaged here just by the fact that I don't vote here."

Students who had experience with political engagement tend to consider "awareness" the bottom line of being "engaged," while those without experience often respond with "having influence via voting". However, a strong majority of all participants considered voting to be a duty. Though cited research reported young adults commonly shared a lack of access to adequate political information as a barrier to voting, no participants formally linked the two together to suggest "awareness" as a requirement for voting responsibly. One participant ranked voting of primary importance and then awareness second, attributing to the heavy work that is understanding the complexity of the issues.

"I think [being politically engaged] is more of trying to learn more about issues or trying to in some way, like, maybe affect how those issues are perceived. But I guess the bare minimum was just, you know, being aware of what's going on and being a part of the basic process of voting."

Students also expressed unique interests depending on their personal history and social circles. Some are motivated by political knowledge and dynamics, while others simply want to know more about the city and its history. We observe that those who articulated a starting point in following local politics find themselves learning about local communities over time, and students who are interested in learning about local community incidentally learn of local government activities, even if they do not actively seek political information..



Key Finding 2: Local Community/General Awareness Occurs as a Byproduct of Exploring Hobbies Outside the University Bubble.

Our selection criteria ensured participants had lived in Berkeley for at least two years and were enrolled as students in University of California, Berkeley. We expected newer students may focus a majority of their attention on familiarizing themselves with the university and academic requirements. We chose to study students with two years of experience who we anticipated would focus more attention on activities outside of the university community and their post-university goals. Participants supported this theory, one stating “I feel like, during college, especially in my freshman year, I didn't really try to engage with other people because I was like, more focused on studying and getting the best possible grade in my little life. But I've tried to avoid doing that now.”

Students shared that many of their encounters with local non-student community members occurred on their commute or in transit to events. Many students did not have access to a car and utilized public transit. They interacted with local residents and explored the streets of Berkeley beyond “Southside” while participating in student clubs (Sailing at the marina, local photography club, etc), exploring restaurants, and going to local farmer’s markets. Those who had more exposure to the local community through these incidental interactions were able to identify various characteristics and community members of Berkeley, “I know about various parts of city, each district has its own thing going on,” versus those who did not shared that, “Berkeley is more like Southside, I think,” or “rich like Northside,” which neither is correct.

Key Finding 3: Local Politics is “Gladiator Combat” Mixed with “Soap Opera.”

Participants were hesitant to use the word “fun” to describe local politics. Associations with “fun” tended to revolve around two subjects: learning about how important decisions were made and observing the visceral emotions expressed during political processes. Many participants found the process of understanding how decisions are made interesting and engaging, particularly for policies participants identify as having roots in issues important to the local community; this finding was consistent even when the policy involved a social issue they are not personally interested in. Engagement increased if we showed them council members’ decisions they could not reconcile with their understanding of the policy’s context.

“Um, I think it's fun to watch. I think that dynamics can be interesting and at the end of the day, there are a number of important decisions that are decided on that local level.”

A participant familiar with local politics described the frequent “gladiator combat” dynamic as “fun to watch,” and mentioned “it almost feels like there is more [city politics] than anywhere else,” because there are so many “emotional conflicts” like a “soap opera.” Participants who were not familiar with local politics also described the emotional aspects of social issues as engaging, “I kind of want to know and understand why [so many] people seem so upset.”

Politically engaged participants also hesitate to lean into the word “fun” around local politics, acknowledging that such a characterization of the emotional connections of people who are involved in a meaningful social conflict can seem disrespectful. Some also identified a sense of “revulsion” when they witness uninformed and unproductive emotional exchanges.

“I want to have this sort of respect and civic mindedness and think, ‘Oh, this is very important,’ and a part of me thinks this is just people who want an excuse to like, yell and fight and argue, and so much [of it] isn’t productive.”

Important Context to Highlight in Solution Design for Our Target Demographics

Participants generally described students as conscientious explorers who 1) would like to be on the “right” side of history, who 2) acknowledge the importance of local political engagement, and 3) are interested in exploring communities outside of the university context. These motivations align with cited research that reported young adults are largely interested in political engagement but feel hesitant to do so without the information and experience they need to do so with confidence.

To action these motivations effectively, the following student characteristics are important to address in our solution to increase constructive and positive engagement:

1. Students feel a sense of transience and thus question their right to participate

“I kind of feel like I’m just passing through Berkeley and a lot of ways, like Berkeley as a thing is a community that I read about, because it’s happening around me and interesting, and I like acknowledge it, but I don’t feel like I am personally like, part of the Berkeley [City].”

Many students have identified with the sentiment above; the conditional and temporary nature of their presence in the city combined with the uncertainty of how long they’d stay past graduation prevents many students from engaging with local politics. This is enabled by the frequently shared notion

that the university and the city are separate worlds with different rules and governance, where “the university predates on the city.” One participant hesitates to influence local politics despite being politically aware because they feel that they’re just “passing by” and questions the appropriateness of students influencing the course of the city’s developments.

At the same time, some participants expressed that the consistent and large presence of students in Berkeley and their sense of belonging within that community made them feel empowered to participate, especially when they consider the experience of students that have come before them and those that will come after. As one interviewee shared, from there he felt a sense of “responsibility” to advocate for the student community at the city level given the natural conflict of interest between the two entities.

“I might personally only be here for a few years. But I am a student at Berkeley, and when I’m gone, there’ll be another student to take my place, and before me there was another student who had my place.”

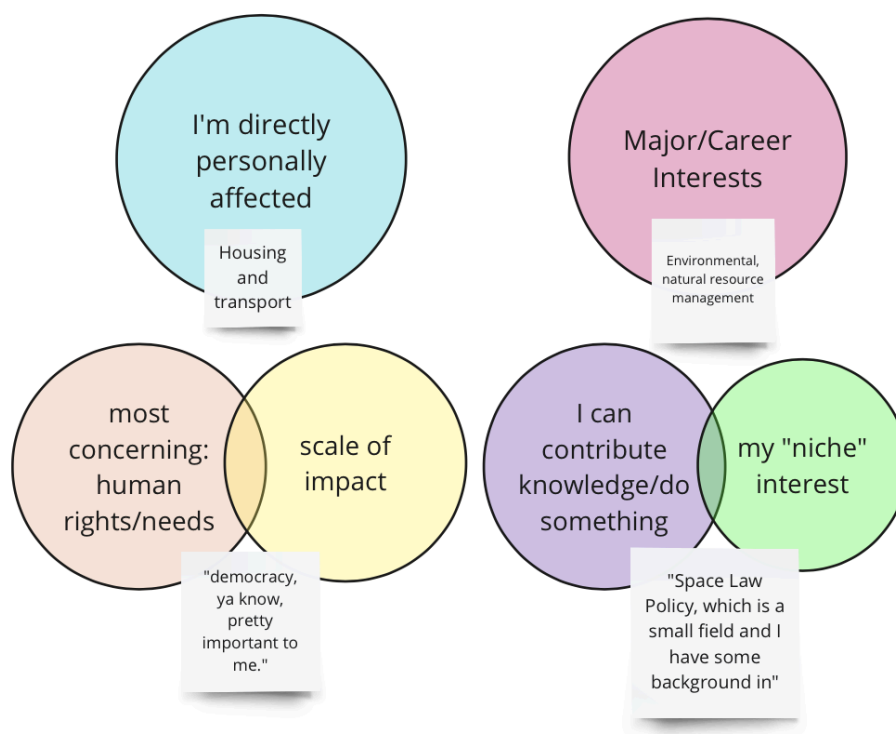
2. Students have limited time

As mentioned in Key Finding 2, those new to the university might be more focused on familiarizing themselves with the university community and academic requirements. Even for those who are keen on exploring, time is a precious resource that students must prioritize across a wide range of alternative activities and interests.

“As a student [local politics] is just one part of Berkeley.”

Students have expressed various dimensions of social issues that would motivate them to consider local political engagement, detailed in the visual below. Each of the circles below is a unit of motivation where overlaps and examples are given. The social issue/city policy that garners the most overlap might inspire greater motivation, which our solution can consider to recommend related opportunities to get involved. The visual below does not detail ranking of motivations, which likely vary depending on the participants. Students who are in public service career routes, such as public health, have identified getting involved with health equity issues to align with their interest in becoming better locally aware. Capturing student motivations and curating available engagement opportunities can help Magenta offer more actionable suggestions that will support our solution’s success.

“Directly addressing inequities, or like disparities in the health services, or accessibility of health care services would be something that I might be interested in.”



3. Students' type and degree of political interest is "seasonal"

Two major context shifts influence the subject and degree of students' interest in local political movements. First, in the process of exploring courses and deciding majors, top of mind subjects might also shift. Different majors and its courses also expose students to new social circles that discuss corresponding major-related social or political issues.

"I changed a lot depending on what class I'm in, or I changed majors halfway through, and that changed a lot about the cohort I was in."

This shift is of interest to us as many students who become curious of politics cite other politically motivated students as a driver of their interest, "I think a lot of students are pretty involved in political news, like, they're always like updated on it...I should be more like, involved in those kinds of things too."

Some students cite relying more on major political movements (e.g. protests) on campus to initiate their journey into political engagement in order to feel more included with the activated Berkeley community. However, they do not know how to sustain proactive political interests and continue the

conversations once the movement ends. A participant noted they feel “regretful” that they’re not more involved like the others, and still aspire to identify with the community somehow.

“But eventually, it all dies down. And just, I’m like, oh, okay, it’s back to like, not really being as interested in politics.”

The Five Major Student Personas

From the qualitative interviews, five major Persona types were observed based on our recruits. They varied in how they conceptualize and participate in local community and local politics. The boundaries between each Persona type are not mutually exclusive, but instead represent their dominant motivations, engagement preferences, and political experiences. Their sense of fun varied depending on their experience and context.

Table No. 1

| Persona | Motivation | Engagement Style | Barrier |
|-------------------|---|--|--|
| Full Fledge | Interested in a political career, want experience with real world social/political issues. | Runs for student government, joins City Commissions, appointed by council members. | Strong student values; may not consider the perspective of non-student residents of Berkeley. |
| Invested Observer | Very interested in the ongoing activities of the city and its people. Had previous political experiences at home city. | Engaged and aware; does not participate. Information forages - likes to be informed and have full-proof opinions; Uses multiple sources like Daily Cal, Berkeleyside, instagram, TikTok. Participates in local events hosted by student organizations or interest groups. | Uncertain whether they have the “right to participate” as a transient student stepping on the city’s turf. |
| Curious | Very interested in the | Semi-engaged and | Does not feel |

| | | | |
|----------------------------|---|--|--|
| <p>Dabblers</p> | <p>ongoing activities of the city and its people. Enjoys directly engaging/discussing with students and residents.</p> <p>Will pick up volunteer work and learn about local politics if info is handed to this Persona.</p> <p>Had previous political experiences at home city.</p> | <p>aware; does not participate.</p> <p>Enjoys exploring Berkeley and talks to residents to learn about local issues. Does not actively seek information online for political understanding.</p> | <p>confident that they know the city or lack a sense connection to it, relates their feelings to “I don’t know what the City is doing” even if they “know about various parts of the city, each district has its own things going on, but it’s hard to know to be honest.”</p> <p>Open to learning more about local politics, but not at the expense of putting in extra effort.</p> |
| <p>Casual Explorer</p> | <p>Looking forward to exploring more of the city after spending enough time around school grounds.</p> <p>Curious about Berkeley (history, people, dynamics) but less about influencing local politics.</p> <p>May/may not have previous political experiences at home city.</p> | <p>Light information foraging online, more likely to have discussions with friends who are interested in social media.</p> <p>Want to expand their understanding of Berkeley, to go beyond the university community.</p> | <p>Want to explore more of what the city has to offer and are looking for more recommendations.</p> <p>For those with a political science background: Feel somewhat obligated to know about local politics but don’t want to invest time/effort. “...I can’t tell you a single person who’s in charge of our local gov.”</p> |
| <p>Motivated Fledgling</p> | <p>Feels a lot of fellow students are involved in politics, became more interested as a result, and would also join a cause/be more informed somehow to</p> | <p>Interested and open to exploring participation options.</p> <p>Interested in being involved with issues</p> | <p>Perceives “being involved” and being politically active as intimidating. Reasons could include fearing not knowing enough, or what’s necessary,</p> |

| | | | |
|--|--|--|--|
| | <p>be part of this activated community.</p> <p>“I just feel like I need to find more things to do that isn't just constantly studying every waking moment of my life”</p> <p>Does not have previous political experiences.</p> | <p>with “real world” implications.</p> <p>Baseline: Would like greater social issue awareness.</p> | <p>to converse with others; or not know how else to be active besides joining protests, which is not sustainable.</p> <p>Concerned and questioning how much time to invest into participation.</p> |
|--|--|--|--|

Quantitative Research

This quantitative research delves into understanding the preferences, behaviors, and engagement levels of individuals regarding local political activities within the university community. By employing the K-means clustering method, three distinct persona clusters emerged, each offering unique insights into how people interact with political information and engage in related activities. Through a comprehensive survey, we investigated various aspects such as preferred communication channels, formats for receiving political information, frequency of engagement, and levels of trust in digital platforms.

The three persona clusters were named Cluster 0, 1 and 2 respectively. A finer analysis of the three persona clusters revealed that Cluster 0 is more interested in political activities while Cluster 2 is least interested. Cluster 1 comes in between the other two clusters in political activity interest. Observations about the behavior of each cluster with respect to survey questions is given in the Table below.

Table No. 2

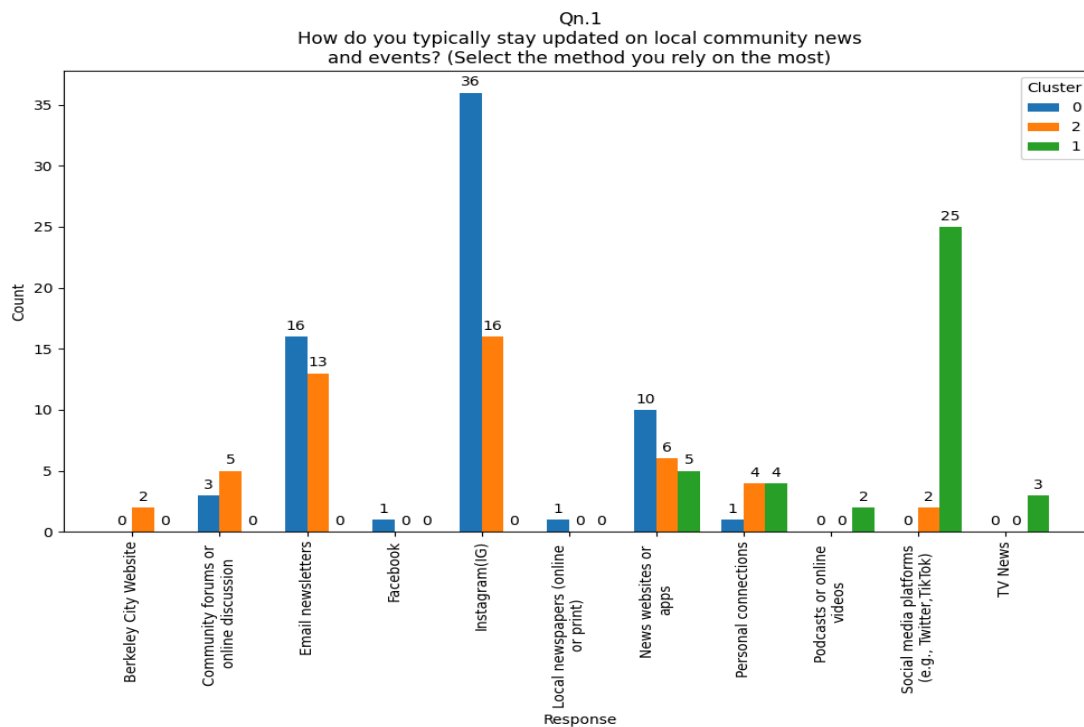
| Q.No. | Description | Cluster 0 | Cluster 1 | Cluster 2 |
|-------|--|------------------------------|--|--|
| 1 | How do you typically stay updated on local community news and events? (Select the method you rely on the most) | Predominantly uses Instagram | Predominantly uses social media platforms like Twitter or TikTok | No predominant preferences like the other two clusters |

| Q.No. | Description | Cluster 0 | Cluster 1 | Cluster 2 |
|-------|---|---|---|---|
| 3 | In which of the following formats do you CURRENTLY receive local Berkeley political information through digital platforms? | More preference for infographics/visual summaries and written articles | Higher preference for written posts, infographics and short reels | Predominant preference for written articles or none of the above |
| 4 | How often do you use digital platforms (for example - Facebook, Twitter, news websites) to access local political information? | Highest preference for "At least one a week" option. Shows that they are the most active of all the three clusters. | Although they use digital platforms once a week, they are less likely to use digital platforms than cluster 0 | They are the least active |
| 5 | How often do you discuss local political issues IN PERSON, for example, with friends, family, or colleagues? | Most active in discussing political issues in person | In level of activeness, they come in between the other two clusters | They are the least active in discussing political issues in person |
| 6 | How often do you discuss local political issues THROUGH DIGITAL PLATFORMS like Reddit, Facebook, or TikTok, for example, with friends, family, or colleagues? | They are the most likely to discuss local political issues through digital platforms | In level of activeness, they come in between the other two clusters | They are the least likely to discuss political issues through digital platforms with friends, family, or colleagues |

| Q.No. | Description | Cluster 0 | Cluster 1 | Cluster 2 |
|-------|--|---|---|--|
| 8 | How often have you participated in local political activities (e.g., rallies, voting, community meetings) through information or invitations received via digital platforms? | Of the three clusters they are more likely to participate in local political activities | In level of activeness, they come in between the other two clusters | They are more likely to never have participated in local political activities |
| 11 | How frequently do you utilize mobile applications (Example - TikTok, Facebook, Reddit, etc) tailored for accessing local political information or participating in local politics? | They frequently use mobile applications tailored for accessing local political information or for participating in local politics. | In level of activeness, they come in between the other two clusters | They are the least likely to use mobile applications tailored for accessing local political information or for participating in local politics |
| 12 | How frequently do you utilize web browsers on laptop, desktop computers or on mobile phones for accessing local political information or participating in local politics? | They frequently use web browsers on laptops/desktop computers for accessing local political information or for participating in local politics. | In level of activeness, they come in between the other two clusters | They are the least likely to use web browsers on laptops/desktop computers for accessing local political information or for participating in local politics. |

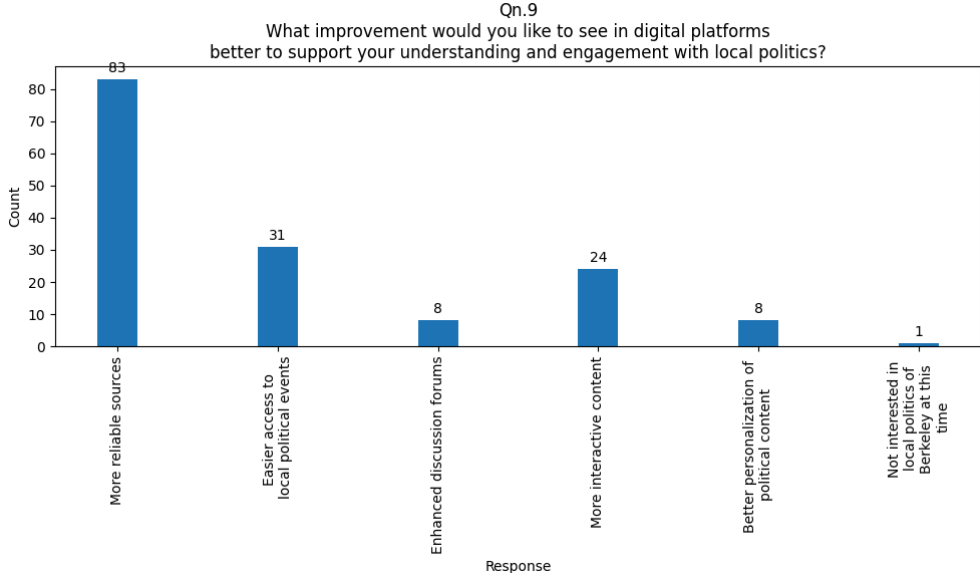
| Q.No. | Description | Cluster 0 | Cluster 1 | Cluster 2 |
|-------|---|---|---|--|
| 45 | How likely are you to participate in a local government meeting or event in the city of Berkeley? | Most likely to say that they are open to possibilities for participation | They come in between the other two clusters with higher participation interest than cluster 2 | Most likely to say that they have no plans or interest |
| 47 | How likely are you to participate in or observe a protest or rally in the city of Berkeley? | They are more neutral in their preferences, but more likely to participate than not | They do not exhibit distinct preferences | They are most unlikely to participate |

We identified from the results of Survey Question 1 that Cluster 0 was more likely to use Instagram while Cluster 1 was more likely to use Twitter or TikTok. While Cluster 2 did not demonstrate a strong preference for any specific method for accessing information about political events. We observed that Instagram was the method people used for staying updated on local community news.

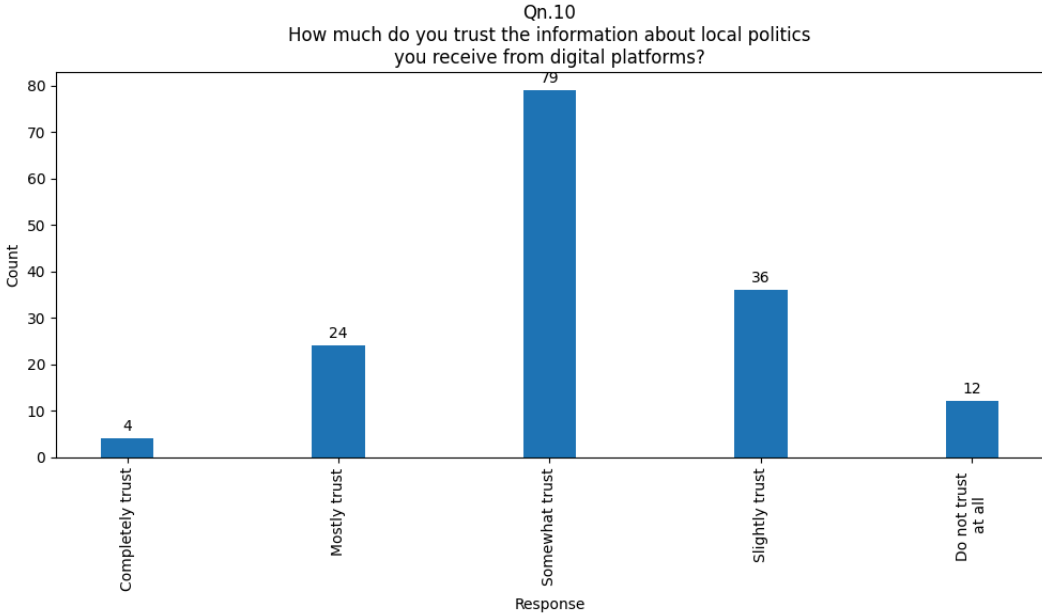


Through the results from Survey Question 2 we found that the top three formats students *prefer to receive* local political information through digital platforms were in this order: infographics/visual summaries, short reels (less than 1 min) and written articles. The vast majority of respondents *currently receive* local political information in the form of written articles or posts.

Surprisingly, we found that students are more likely to discuss local political issues in person with friends, family, or colleagues than through digital platforms. It is surprising because in this era of social media we expected that students would rely on digital platforms to communicate with their friends, family, or colleagues rather than in-person conversations. We suspect students may feel insecure about sharing their political beliefs over social media and risk getting unwanted attention.



The majority of students wanted more reliable information as an improvement for digital platforms (Reference Qn. 9). Interestingly the majority of students “somewhat trust” the information received from digital platforms (Reference Qn. 10) although most students want more reliable sources. This provides a space for increasing the reliability of sources that share political information through our product.

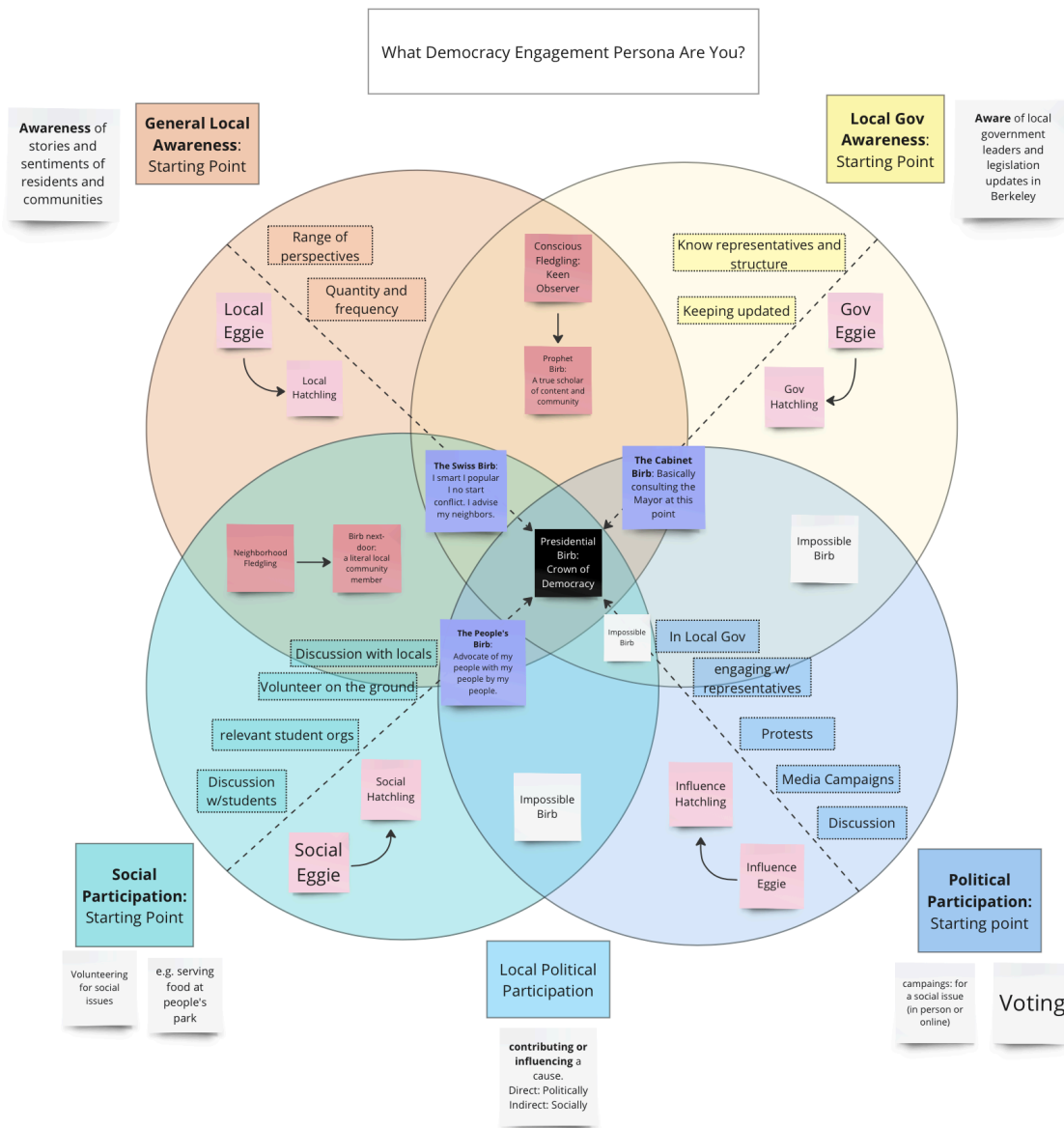


Integration of Results

Myer-Briggs of Political Personas: Politi-Persona

This Persona framework was developed because our qualitative research showed that those new to political engagement view politics as unapproachable and intimidating, and feel that a certain level of understanding or fluency is necessary to qualify their participation. Even for those with prior political experience, interviewees have cited creating self-barriers to participate due to a sense of shame in not engaging enough, or in a manner that is civically acceptable. This is a crucial barrier to overcome if we want democracy to be open, inclusive, and vibrant with diversity.

We expect this framework will help individuals feel welcome to engage with democracy by offering multiple forms of participation, all of which are appropriate and important in upholding the pillars of democratic decision making; that democracy is cooperative, where we all adopt different roles depending on our preferred style of engagement; and that our engagement choices are not static, but a practice in motion that enable us to learn about ourselves, our neighbors, as well our relationship with those who govern us in ways that respect our capacity, abilities, and agency.



Here we formally distill down democratic engagement into four categories of engagement styles based on our qualitative and quantitative findings. Each of these type has its own starting point based on participant's interest, with

- Awareness: to information forage, seek truth, and understand
 - General Local Awareness
 - Local Government Awareness

- Participation: to act on their awareness (e.g. voting, volunteering, campaigning, discussing, and sharing knowledge to influence/impact others' understanding and opinions).
 - Political Participation
 - Social Participation

This framework also incorporates quantitative findings around level of awareness and participation, with cluster 0 (least active) towards the outskirts of the diagram, increasingly moving inwards as level of involvement increases with activity types.

The Five Major Student Personas in Context of Politi-Persona

From the qualitative interviews, five major Persona types were observed based on our recruits. They varied in how they conceptualize and participate in local community and local politics. The barriers per each Persona type are not mutually exclusive, but rather what was top of mind for each Persona's motivations, engagement preference, and political experience. Their sense of fun thus also varied depending on which aspect they had experience in and what context they had.

Table No. 3

| Persona | Activities | Persona Spectrums |
|---|---|--|
| <p>Full Fledge:</p> <p>Interested in a political career, want experience with real world social/political issues.</p> | <p>Runs for ASUC, joins City Commissions, appointed by council member</p> | <p>High (H): General Local Awareness H: Local Government Awareness H: Local Political Participation</p> |
| <p>Invested Observer</p> <p>Very interested in the ongoing activities of the city and its people.</p> <p>Had previous political experiences at home city.</p> | <p>Engaged and aware; does not participate.</p> <p>Information forages - likes to be informed and have full-proof opinions; Uses multiple sources like Daily Cal, Berkeleyside, instagram, TikTok.</p> <p>Joins local events hosted by student organizations or interest groups that inform</p> | <p>Med (M)~H: General Local Awareness M~H: Local Government Awareness Low (L): Local Political Participation</p> |

| | | |
|--|--|--|
| | awareness. | |
| <p>Curious Dabbler</p> <p>Very interested in the ongoing activities of the city and its people. Enjoys directly engaging/discussing with students and residents.</p> <p>May/may not have political experiences at home city.</p> | <p>Semi-engaged and aware; does not participate politically.</p> <p>Will pick up volunteer work and learn about local politics if information is offered to this Persona.</p> <p>Enjoys exploring Berkeley and talks to residents to learn about local issues.</p> <p>Does not actively seek information online for political understanding.</p> | <p>M~H: General Local Awareness</p> <p>L~M : Local Government Awareness</p> <p>L~M: Social Participation</p> |
| <p>Casual Explorer</p> <p>Looking forward to exploring more of the city after spending enough time around school grounds.</p> <p>Curious about Berkeley City (history, people, dynamics) but less about influencing local politics.</p> <p>May/may not have previous political experiences at home city.</p> | <p>Light information foraging online, more likely to have discussions with friends who are interested in social media.</p> <p>Want to expand their understanding of Berkeley, to go beyond the university community.</p> | <p>L~M: General Local Awareness</p> <p>L: Local Government Awareness</p> <p>L: Social Participation</p> |
| <p>Motivated Fledgling</p> <p>Feels a lot of fellow students are involved in politics, and became more interested as a result.</p> | <p>Would also join a cause or be more informed somehow to be part of this activated community.</p> <p>Interested and open to explore participation type</p> | <p>L: General Local Awareness</p> <p>L: Local Government Awareness</p> <p>L: Social Participation</p> |

| | | |
|--|--|--|
| <p>“I just feel like I need to find more things to do that isn't just constantly studying every waking moment of my life”</p> <p>Does not have previous political experiences.</p> | <p>Very open to new awareness and perspectives of “real world” issues + implications</p> | |
|--|--|--|

Solution Design

Target User Group

The combined findings of both our qualitative and quantitative user research led us to focus on a specific target user group for our product marked by four defining characteristics:

- College students, particularly those who have studied for at least two years, who have taken permanent residence in their “host community” but feel a level of disconnect from the community at large
- Bipartisan
- Ages 18-34
- Are looking to get involved in politics in their community but feel uninformed or lack the tools to otherwise do so

Competitive Analysis

In our survey of the market, we looked at twenty-three existing products that aid users in developing an awareness of the political situations within their communities. These included well-known and renowned news sources such as the New York Times and the Economist, as well as other products across the mobile and web landscape such as VoteSF, ISideWith, FiveThirtyEight, ProVote, ActiVote, and KnowYourVote.

Key findings from this research include that the majority of products focused on addressing knowledge gaps between voters with regards to the political process focus primarily on delivering information about the federal government. Even those with a local focus such as VoteSF, focused on only delivering knowledge to users about elections coming up and its participants.

As we found in our qualitative and quantitative research, however, this was not the information that users need most to feel informed and connected to their community.

Magenta is significantly differentiated from the existing product space not just for its local focus, but also for our product's goal of connecting users with their communities through active engagement with events and other forms of participation not directly tied to formal political process, while informing them of the more daily minutiae of their local political system at work. This is something new to the market, creating a unique niche for engaging our target user group.

Problem Statement

The themes identified in the qualitative research study, validated by the quantitative survey, gave us more insight into a very specific problem related to a critical knowledge gap that created a barrier to access for our target user group.

Specifically, that college students needed a way to find resources and gather information about local politics because they:

- Feel overwhelmed by the multiple streams of information that they already have access to and are limited in the time they are able to give to sorting through these resources due to their commitment to other career-building activities
- Feel underwhelmed by available resources to learn what they would like to learn around local communities and politics
- Feel like the concept of "politics" is unapproachable and intimidating; requiring a certain level of understanding or fluency to partake in
- Feel like political engagement must exist as a dichotomy, where you're either "all-in" or "all-out"
- Fear the potential of moral judgements from others in their broader community that might come from sharing an opinion-in-progress

Solution

From the findings of our semi-structured users interviews, our team was able to identify that a key frustration for users when it comes to how they already interact with local politics or political information, more generally, is that they feel both unaware of how to find the information they want to access and deflated by barriers to understanding this information.

Magenta provides a solution by serving as a “political starter pack”, with two primary objectives:

- Making users feel more engaged with their communities and empowered to take an active part in these communities
- Making users feel more informed about political issues within their community and that their barrier to access has been lifted

We were able to distill this into two core user needs our product needed to fulfill in order to provide an adequate solution to the outlined problem statement:

- Streamlining of already existing information that gives a direct pathway to understanding of issues that they care about
- Creating new frameworks for understanding complex and multi-faceted issues without the large time investment that current research processes require

Product Overview

Magenta seeks to address these unique user needs through a multi-pronged primary use case, providing users with the ability to:

- Research politics
- Researching their community
- Ramp up direct participation with the local political system through habitual encouragement and reinforcement

This use case led us to develop Magenta’s core features, which affords users to:

- Take a persona quiz to identify a “politi-persona” that provides users with a breakdown of their unique participation style
 - Ability to share these results with others in their social circle
- Populate a profile page with personal details, as well as badges related to social interests and participation within the community
- Ability to add friends from contacts and access their profiles
- Track relevant updates surrounding certain content tags attached to “explainers”.
- A weekly digest home page that explains information for the day with highlights for their issues/interests of choice from sources such as news publications (ex: Berkeleyside), City Website, or City Councilmember newsletters with curated links and/or resources for further exploration

- Access suggestions for two types of activities related to themes like information foraging or advocacy based on their participation style/persona
 - Bite-sized activities
 - Bi-weekly to monthly activities that they can use to build a habit of participation
- Claim special “collectible” badges
 - For taking part in suggestions
 - For attendance “achievements” - Counting the days that users have shown up, with special stickers/badges for different levels of engagement
 - Users can print these or share them digitally with peers

Magenta is a mobile-first application that aims to identify users’ unique styles of political participation, provide a direct pathway to understanding of issues that users care about, and get users out and active within local politics in their communities through suggested activities that cater to their personal methods of engagement.

Product and Brand Design

Brand Vision

Magenta’s vision for the future is a world where college students no longer feel like transient members of their “host” community, but actively engage and contribute to the local political landscape of these communities, while also feeling confident and well-informed.

We aim to lift the barrier of access that users feel to engaging with political action in their cities.

Brand Values

Equitable + Accessible + Individual + Rewarding

The core values that move Magenta forward are creating a user experience that meets users where they are and feels individual and personal to them, empowers them to be independent within our platform, provides timely, predictable, uncomplicated and precise information, and rewards users for their engagement. Our aim is for Magenta to become a facet of our users’ daily lives and routines, and encourage them to feel the same way about politics and political engagement.

Brand Voice and Tone

Our tone of voice is friendly, approachable, and trendy. We aim to communicate with our audience in a way that is both informative and engaging. We avoid using overly technical language or jargon and strive to communicate in a way that is easy to understand. We incorporate trends and other colloquial language as appropriate to appeal to our core target audience of young college students.

Logo Design



Magenta's logo and wordmark emphasize connection and togetherness, both core aspects of our core brand identity and values. Inspired by interwoven and connected objects, our symbol loops together in the center, blending into our namesake magenta from all colors across the rainbow, symbolizing bi-partisanship and Magenta's aspiration to be a product that everyone can use to become informed no matter their political affiliation.

Colors

Primary Color Palette



Secondary Color Palette



Neutrals



Our primary color palette consists of high-contrast vivids, including a magenta. All of these are made to work together, along with a secondary color palette made up of transition shades. Neutrals for our brand include a light grey, charcoal, and navy, to

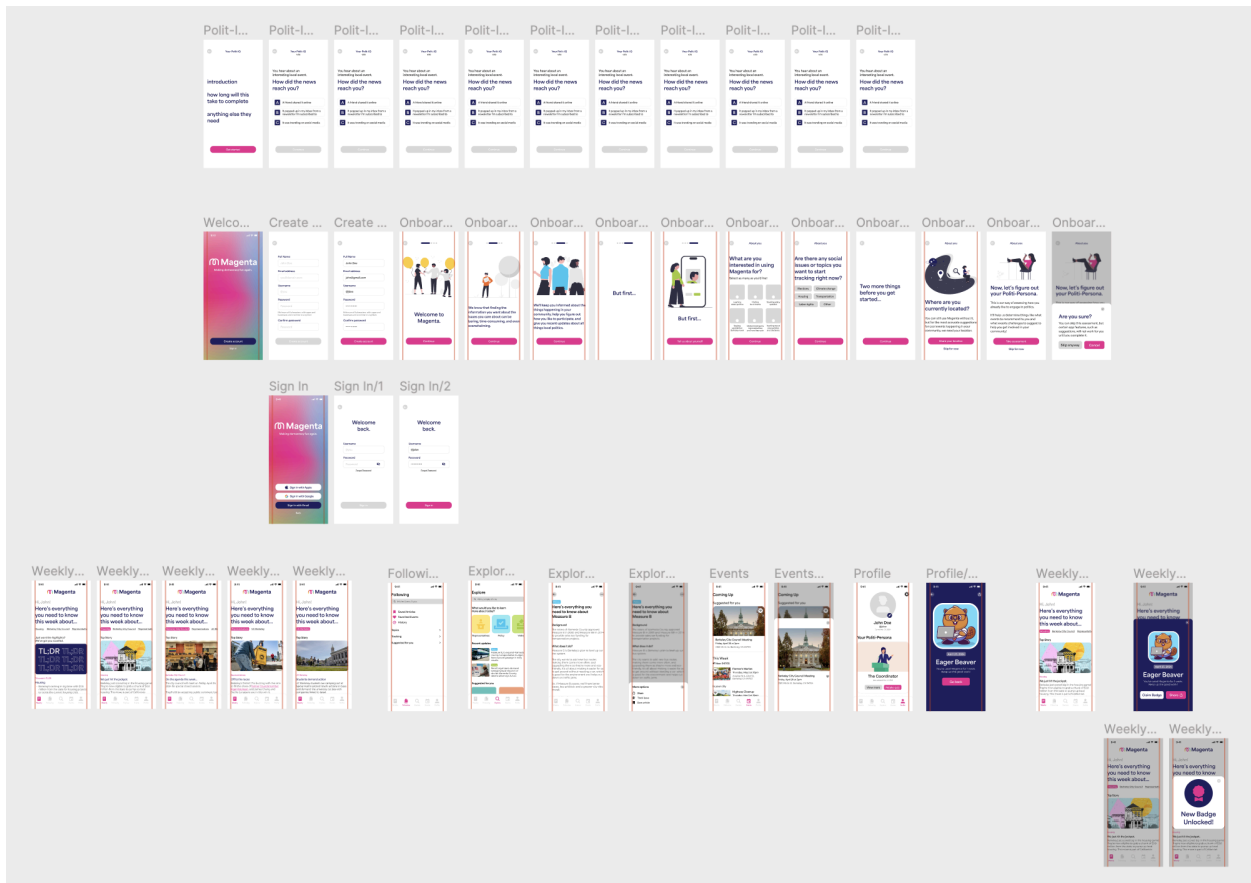
offset the high contrast of the primary and secondary color palette without coming across as flat.

This color palette was chosen to lend a sense of vibrancy and engagement to the product imagery, and to stand out from other market competitors that stick to more monochromatic and limited color palettes that emphasize the more rote nature of consuming political information.

Typography

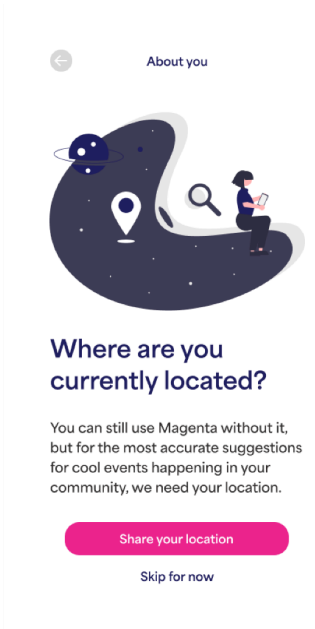
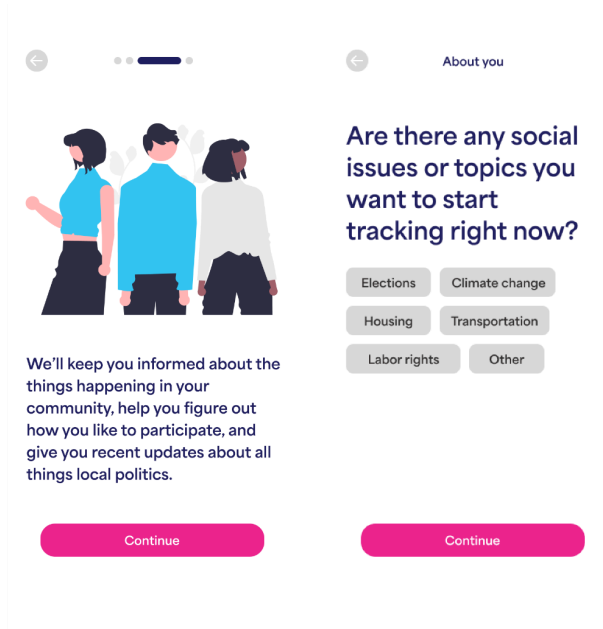
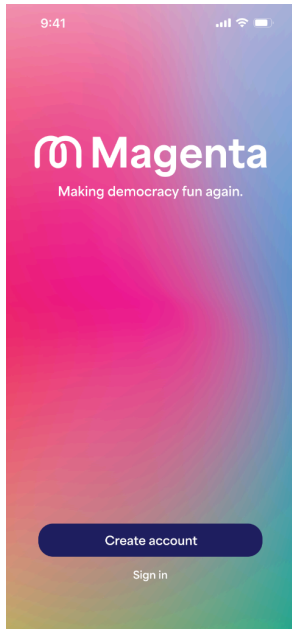
We use two typefaces in our brand communication: Area Normal and Montserrat. Area Normal is used primarily for headlines and titles, while Montserrat is used for body copy and other text. Two sans-serif fonts are used to emphasize readability and accessibility for a large variety of audiences, and to maintain a modern and clean brand visual identity.

High-Fidelity Prototyping

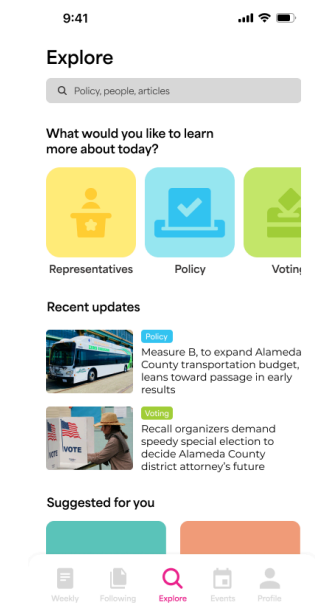
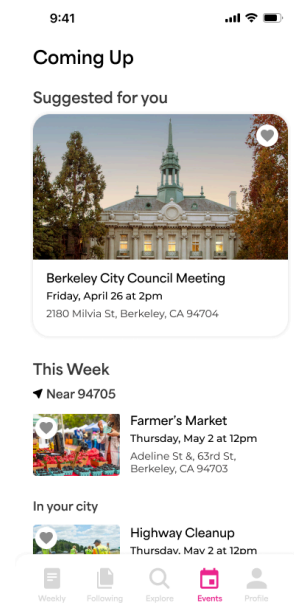
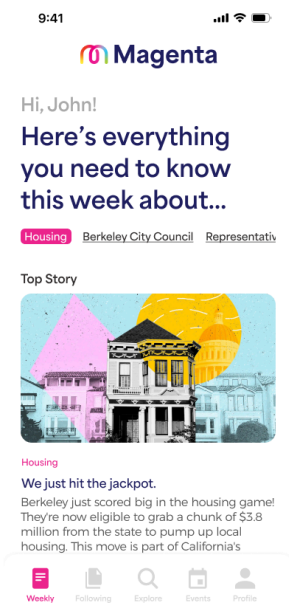
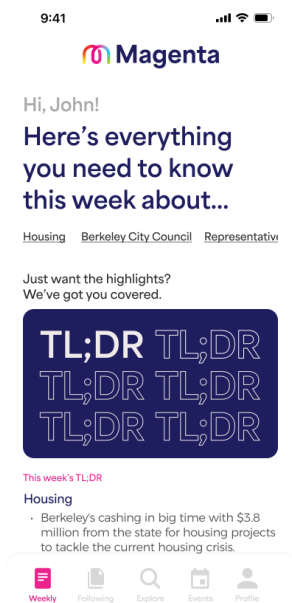


Our high-fidelity prototype focused on developing three distinct user flows within Magenta, spanning over forty screens:

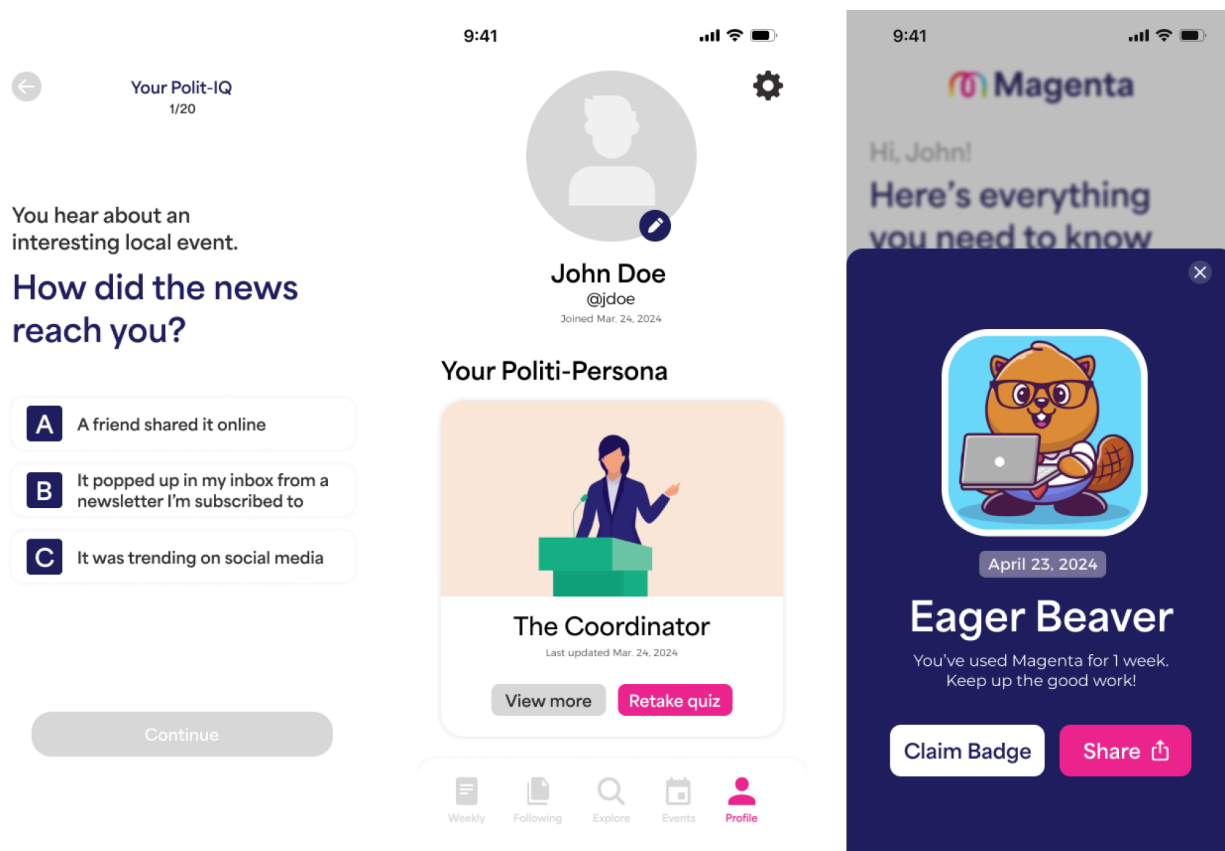
- User onboarding
- The Politi-Persona assessment
- The primary user flow, including the weekly digest, event, and explore screens



User Onboarding



Weekly Digest, Explore, and Events



Politi-Persona, Badges, and User Profile

Usability Testing

We conducted usability testing as a measure of gauging Magenta's effectiveness, efficiency, and satisfaction around key features:

- 1) Informing users of Berkeley proposals (news)
- 2) Improving awareness of the university's local council representative (District 7 - that this person exists and they represent students)
- 3) Increasing participant's interest in the Berkeley locality

Effectiveness: Are participants able to achieve a greater sense of familiarity and connection with Berkeley by reading proposals and knowing that there is a student-centered representative on the city council? Does participants' sense of Berkeley expand after using Magenta?

Indicators included:

- Participant statements interpreting and understanding what they're reading around digest/update - how do these things inform their perception of Berkeley and right to participate?
- Participants unable to answer the debrief questions around what these designs and digests mean around local politics and/or scope of Berkeley did not expand.

Efficiency: How much effort does it require for users to find and understand these features?

Indicators included:

- Participant statements on ease or complexity of navigation, and framing
- Participants reach dead ends in navigating to the location identified in each task, or false ends where it was the wrong location.

Satisfaction: How does the experience of exploring and reading Magenta's framing feel?

Indicators included:

- Participants statements that reference the product as fun, engaging, and/or empowering
- Participant indicators that they are curious to learn more about policy or policy updates
- Participant expressions of interest in completing activities in their community and/or a desire to see more of Berkeley than they already have previously

Coming into this test, we had two hypotheses:

- 1) Magenta enables users to understand local politics and connects them to a sense of awareness of the city - that they have the right to be represented on the Berkeley council, and a budding sense of knowing what's going on in the city.
- 2) Participants want to share this product with friends who are involved in local politics, or are interested in being involved in a cause of their interest, or are interested in exploring more of the city. (Depends on our participant type)

We tested these hypotheses through a series of six tasks:

- Task 1: Look through the weekly digest and summarize what you read

- Task 2: Find the recent update on Berkeley's Measure B and summarize what it is
- Task 3: Start tracking updates on Measure B
- Task 4: Find an event happening in your community that you'd like to attend and save it
- Task 6: Find what badges you've earned so far by using Magenta

Key Findings

Key Finding 1: 86% of participants were able to successfully and confidently summarize information provided to them through Magenta's framework.

Six out of our seven participants were able to successfully identify and summarize information contained within Magenta's weekly digest, noting that the writing style was both interesting and engaging, and even made them "want to know what would happen next."

The weekly digest was seen as the most useful feature to users in this participant pool, citing that the use of subheadings made it easy to find the information they were looking for with "catchy headlines" and "easy-to-understand" language that felt familiar to products they had used before such as Instagram and Apple News.

The color-coding of information within Magenta's information was also emphasized as a way of helping these users digest and understand the information being presented to them.

Additionally, users found the addition of actionable suggestions for activities they could do related to the weekly digest to be especially intriguing,

One user stated: *"The activities made me feel like I could do something ... a little reminder of what I could do to help myself,"* creating an experience that felt almost like a video game, making them feel welcome, but also encouraging them to participate further.

Key Finding 2: All participants stated finding Magenta easy to use and easy to navigate, with little effort required to find and understand the information provided to them.

Users appreciated the aesthetics of the product, including the colors and modern design. Users found that the colorful design made the content more engaging, and the inclusion of illustrations and images were appreciated.

They were especially delighted with the ability to find events happening in their area. They found the interface to be intuitive and organized in a way that made sense when combined with search functionality and a permanent and labeled bottom navigation that made it easy to transition between different user flows.

Participants described their overall experience using Magenta as: “not tiring to the eyes”, “very nice”, “easy to use”, “visually pleasing”, “smooth”, and “user friendly.” Six out of seven participants rated their experience as a 7/10 or above, with four users rating their experience as at least a 9/10.

Key Finding 3: All participants indicated a greater than 50% likelihood that they would recommend Magenta to other prospective users within their social circle.

All participants indicated that they would recommend Magenta to at least one other prospective user, with six out of seven participants indicating an at least 80% likelihood of recommendation.

All participants stated that they would be most likely to recommend this product to people who are not politically active or engaged in local issues, as a good way to learn more about politics without being overwhelmed by jargon and as a good place to start for someone who is not interested in politics but wants to learn more.

Users also discussed Magenta’s specific relevance to students, as a great way for students to get more involved in politics and stay informed of what’s happening both on and off campus. They, however, also thought it would be relevant to general community members who want to stay updated on local issues but wouldn't take the initiative to search for articles themselves, as a “one-stop shop” for keeping updated on everything happening in the city.

Users were also drawn to Magenta as an innovative and personalized news source they could see themselves and those around them adopting.

“I know a lot of people like me who don’t really care about local politics, but would find it useful to know what’s happening in the world and just hop in.”

“If the app gets you connected and you can communicate, I would share this with close friends and family. They have the same struggle like me where we want to get more involved with news but it’s so complicated.”

“[I] don’t see a lot of apps that are like this; personalized but also innovative. It reminds me a lot of Instagram...[It would be] very easy to transition to this app.”

“A lot of people bring up being kind of interested but not knowing how to get more involved, right now [I’m] recommending other sources, so being able to point to a robust, very tailored app – would do that.”

Guidance for Future Iteration

Participants also provided ideas for thinking about future evolutions of Magenta’s features with suggestions such as:

- Further avenues for user customization with options including allowing users to track completed activities, set reminders and custom notifications for events they’re interested in attending, offering customizable colors and a dark mode, and the ability to add events to a digital calendar natively
- Creating further opportunities for community-building and social features such as allowing chats between users to discuss articles
- Enhanced content features that provide multimodal support for a diverse array of users with audio and/or video options for exploring the weekly digest

Discussion

Our research successfully identified distinct persona clusters that illustrate the spectrum of community and political engagement among University of California, Berkeley students. We achieved our results through an extensive mixed methods approach combining qualitative and quantitative analysis.

Our quantitative analyses identified three distinct personas, distinguished by varying degrees of interest in political activities. Cluster 0 exhibited the highest level of political engagement, likely representing students who are actively involved and possibly consider political activity as part of their career aspirations. In contrast, Cluster 2 showed the least interest in political activities, aligning with students who may feel disenfranchised or view their student status as too transient to justify active participation. Cluster 1 represented a moderate level of interest, serving as an intermediate group that, while not fully disengaged, does not display the high levels of activity seen in Cluster 0.

Our qualitative analyses helped us extract themes and patterns of behavior that further define these personas. Our findings reveal a spectrum of engagement, from highly invested individuals to those intimidated by the political scene. For instance, the 'Full Fledge' persona encapsulates students with a high interest in a political career and substantial local policy knowledge, feeling a strong sense of influence over local politics. Conversely, the 'Motivated Fledgling' persona might represent an individual looking to explore political engagement, influenced by peers but feeling intimidated by the political landscape.

The 'Invested Observer' and 'Curious Dabbler' personas show varied levels of local awareness and policy knowledge but share a common hesitation to participate fully, citing a lack of perceived permission or the desire to avoid extensive commitment. Meanwhile, the 'Casual Explorer' is characterized by a curiosity and willingness to explore the local community and beyond with little interest in the political processes.

The diversity in political engagement levels and the associated barriers for varying degrees of involvement highlight the need for tailored approaches in educational and engagement strategies. Our findings align with our initial hypothesis which highlights the importance of addressing barriers specific to individuals as a gateway for increased participation. Furthermore, our findings support previous studies that highlight the relationship between lower political engagement and negative attitudes towards politics among younger citizens. These younger demographics are

often underserved by existing political information sources, creating a knowledge gap that hinders meaningful participation. (Ibreak; Amelia Thomson-DeVeaux et al.; Americans' Views of Government: Decades of Distrust, Enduring Support for Its Role) The insights gained from our study serve as the foundation for designing Magenta, our solution.

Magenta: A better framework

Magenta directly addresses the challenges of community and political engagement found in our analyses starting with understanding the diverse needs of the users. Our research-driven personas, and personality quiz provide unique insights and allow us to tailor the user experience and simplify complex issues.

Magenta builds on previous studies by reducing the negativity surrounding politics and removing barriers to information, which have been associated with discouraging participation. Additionally, Magenta provides a novel approach by providing a platform that connects individuals with the local community which has been linked to increased sense of community and political engagement. Magenta's innovative approach has the potential to bridge the knowledge gap, empowering citizens and making democracy fun.

Limitations

Our findings provide valuable insights into the community and political engagement of students of University of California, Berkeley. There are limitations and implications that must be acknowledged. These constraints may impact the generalizability and applicability of our results in other contexts.

Geographical Constraints

For this study, our target audience was University of California, Berkeley students. We believe the insights and our solution can be generally applicable to university towns in general. However, we acknowledge there may be variances in socio-political landscape across other university towns. Therefore, persona clusters and themes within this study may not directly translate or be representative of students in a different setting.

Validity of Self-Reported Data

Self-reported data through surveys and interviews are inherently subjective and can introduce biases which can compromise the accuracy and reliability of data. Due to the nature of our study, participants may alter their responses based on social

desirability, recall biases, or misunderstanding of the questions. Furthermore, other factors may influence a participant's response such as mood, compensation, and willingness to engage.

Implications

The findings of our study provide a pathway for understanding and addressing the barriers to political and community engagement among university students. The findings carry implications particularly for University of California, Berkeley, which has a reputation for political activism. These implications extend to the design of engagement strategies, the use of technology in understanding student behavior, and the broader socio-political dynamics of university environments.

Perception of Political Engagement

One finding from our research showed the implications of Berkeley's reputation for political activism. A number of students felt judged for not being politically engaged "the right way." It's crucial that our product remains neutral and allows users a platform where they feel empowered to engage with the information how they want to.

Misuse of Machine Learning Models

The application of machine learning models in our study carry the risk of oversimplifying complex socio-political dynamics. There is potential of misuse if the data used in the model is not continually updated, validated and scrutinized for potential unintended biases. A goal of Magenta is to continually update our model ensuring it is inclusive and accurately represents the target audience.

Unintended Consequences of Engagement Strategies

Our findings suggest certain engagement strategies can have unintended consequences if we do not consider motivations and barriers faced by different personas. For example, promoting a highly visible form of activism may alienate individuals who are less comfortable with public engagement, and may overshadow other forms of engagement that are more subtle, but equally valuable. To address this, our platform is designed to offer tailored information that supports various engagement styles in a neutral way. This approach ensures that users can interact in a manner that aligns with their comfort levels, promoting a more inclusive and effective environment for political engagement.

Conclusion

Our research of University of California, Berkeley students' mirrored insights from cited studies of young adults in the United States. Through our mixed methods research phase, we learned:

1. Students are underserved by existing sources of local political information
2. Students are overwhelmed by their responsibilities and lack the time to engage with existing local political resources as-is
3. Students find politics intimidating and complex, requiring fluency before one is qualified or prepared to engage
4. Students view political engagement as "all-in" or "all-out," with most students feeling "all-out"
5. Students fear judgment and repercussions that might come from sharing an opinion-in-progress or being "wrong"
6. Students vary widely in their experiences, preferences, and capacity for local political engagement

In response, we developed a mobile application that would adequately address students' local political information needs and preferences: An on-the-go solution that identifies users' unique styles of political participation, provides a direct pathway to understanding of issues that users care about, and gets users engaging with local politics in their communities through suggested activities that cater neutrally to their personal style of participation.

Our usability testing validated the utility of our application to its intended audience, 86% of whom were able to successfully and confidently summarize information provided to them through Magenta's framework with ease. Participants expressed that the application felt welcoming both in visual design and functionality, facilitating a positive enough experience that all participants indicated a greater than 50% likelihood that they would recommend Magenta to other prospective users. Users also shared that they would be most likely to recommend this product to people who are not politically active in local issues, suggesting success on our goal to inspire engagement. Users went further, commenting that our application's benefits translate beyond the student population and would be relevant to community members looking for a "one-stop shop" for keeping updated on city news and events.

As valuable as our product design is the empirical, user-centered methodology that inspired and informed it. Our research demonstrates the reproducible power that an applied mixed methods research approach has to provide grounded insights that reveal effective solutions to important social causes. If implemented, our research supports Magenta's potential to deliver valuable local political information to young adults who are underserved by current information resources and engagement opportunities.

Our mobile application's positive experience is both welcoming and motivating to a demographic that represents nearly 40% of the eligible voter population. If a significant share of young adults were empowered to regularly engage in local politics confidently and constructively, their adequate representation and positive influence can help counter trends of misinformation and polarization in the United States' current political climate. Young adults may also inspire the new generation of citizens, establishing a cycle of political engagement that could contribute to a thriving future for United States democracy.

Future Work

Politics represents constant, organic social processes that require similarly constant attention and care toward all individuals affected by them. Though our results are encouraging, Magenta's work does not end with our research. Our framework anticipates natural changes in its user population. Our personality quiz feature and machine learning model are designed to detect changes in user needs and behaviors that may merit a new study to inform updates to Magenta's design.

Magenta is meant to empower young adults to engage in local politics in ways tailored to their needs. There are many more demographics and subgroups that remain underrepresented in United States democracy whose needs may fall outside of Magenta's reach. Our findings uncovered notions of "right" and "wrong" opinions and forms of participation that suggest inclusivity remains an important area of study. Further research should explore opportunities to extend support to other underserved groups, especially those who face considerable obstacles similar to those we uncovered among students. Magenta itself must be audited further to account for unintended effects that could adversely affect user groups if left unexamined.

Policymakers have a significant role to play in ensuring citizens' needs are accounted for and addressed. Cited distrust in government stems in part from historical gaps in officials' fulfillment of their responsibilities to the public. Increased political

engagement is not a substitute for the critical role policymakers play in democracy. Magenta's framework and findings can help inform more citizen-centered approaches to policy research and implementation. Future partnerships with Magenta may aid in supporting policymakers, affording them information and tools to better connect with and serve their communities.

Platforms like Magenta and future researchers could develop tools to help interested users learn about the structure of government, how policies are created, and how they are implemented to engage in ways that more directly shape them. These educational tools could eventually include tracks that guide users to consider formal positions in government themselves. These functions would more completely support the full lifecycle of politics and empower citizens with clearer pathways that could result in more inclusive, effective, and diverse political representation.

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Appendix

1. Qualitative Research: Semi-structured Interview Questions
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2. Quantitative Research: Visualizations of Clustered Survey Results
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3. Interactive Prototype
 - <https://www.figma.com/proto/1OCAFNSW75PfGRi6n0vz3z/Magenta%3A-Make-Democracy-Fun-Again?page-id=300%3A746&type=design&node-id=341-3276&viewport=2055%2C1328%2C0.55&t=3VlroLO70laD4aQI-1&scaling=scale-down&starting-point-node-id=341%3A3276&show-proto-sidebar=1&mode=design>
4. Product Website
 - <https://magenta-capstone.webflow.io/>