Trinity University

Digital Commons @ Trinity

Communication Honors Theses

Communication Department

5-2021

San Antonio, Listen Up: Utilizing Collective Intelligence to Inform Local Public Policy

Carson Autri Bolding
Trinity University, carsonbolding@gmail.com

Follow this and additional works at: https://digitalcommons.trinity.edu/comm_honors

Recommended Citation

Bolding, Carson Autri, "San Antonio, Listen Up: Utilizing Collective Intelligence to Inform Local Public Policy" (2021). *Communication Honors Theses.* 20. https://digitalcommons.trinity.edu/comm_honors/20

This Thesis open access is brought to you for free and open access by the Communication Department at Digital Commons @ Trinity. It has been accepted for inclusion in Communication Honors Theses by an authorized administrator of Digital Commons @ Trinity. For more information, please contact jcostanz@trinity.edu.

San Antonio, Listen Up:

Utilizing Collective Intelligence to Inform Local Public Policy

Carson Bolding

A departmental senior thesis submitted to the Department of Communication at Trinity University in partial fulfillment of the requirements for graduation with departmental honors.

April 29, 2021

Date

Dr. Aaron Delwiche	
Dr. Jennifer Jacobs Henderson	Dr. Jennifer Jacobs Henderson
Thesis Advisors	Department Chair
Michael Sot	o, AVPAA

San Antonio, Listen Up:

Utilizing Collective Intelligence to Inform Local Public Policy

Carson Bolding

Department of Communication, Trinity University

Honors Thesis

Abstract

Oftentimes, city residents, those most impacted by policy, are excluded from the policy-making process. Collective intelligence provides a theoretical framework that policy-makers can use to better incorporate residents' voices into the policy-making process and to generate innovative policy solutions to address local issues. In this context, collective intelligence is the idea that when people from different backgrounds work together, they have the capacity to build something bigger and better. This project aims to showcase the potential of using collective intelligence in the policy-making process through a hypothetical case study of how it can be used to address the housing affordability crisis in San Antonio. By incorporating best practices identified in collective intelligence research, this case study serves as a feasible example of how collective intelligence can be put into practice within the context of San Antonio.

Keywords: Collective intelligence, participatory democracy, participatory budgeting, civic engagement, policy innovation, local government, resident input, San Antonio, housing policy

Literature Review

Scholar Pierre Lévy captured the overarching concept of collective intelligence when he wrote that "no one knows everything, everyone knows something, [and] all knowledge resides in humanity." (Lévy, 1999, p. 13). The National Endowment for Science, Technology and the Arts defines it more concretely as "the enhanced capacity that is created when people work together, often with the help of technology, to mobilise a wider range of information, ideas and insights" (Nesta, 2020). Because the definition of collective intelligence is broad, scholars and practitioners use a number of different terms to describe this singular concept, particularly in the realm of policy analysis. These include such terms as participatory democracy, open governance, and policy innovation. These terms embody the same idea: when people work together, they have the capacity to build something bigger and better.

Those who are often excluded from these conversations bring a wealth of knowledge to the table with which they can offer creative solutions to the problems facing their communities. While collective intelligence is often utilized by nonprofits or community organizations, it holds the potential to transform the way our local governments work as well. Rather than relying on public officials to know what is best for their community, collective intelligence asks governments to break down the traditional policy-making processes in order to highlight the voices of those most affected by the proposed policies. By using collective intelligence as a model for civic engagement, governments can better listen to their residents, create policies that address the specific concerns of their community, and generate innovative solutions based on the experiences of those on the ground.

Collective Intelligence as a Model for Civic Engagement

Ank Michels and Laurens de Graaf (2010) explore the intersection of collective intelligence and democratic governance through their study of participatory democracy in the Netherlands. In order to assess the effectiveness of participatory democracy, they began by identifying three functions of the practice as defined by its practitioners. The first of these is an educational function, meaning that by being a part of a collective intelligence policy project, participants learn how the government functions and how to be good citizens. In Henry Jenkins' white paper on participatory cultures and media education, he comes to a similar conclusion, identifying that young people "learn the skills of citizenship by becoming political actors and gradually coming to understand the choices we make in political terms" (2006, p. 10). This combats the notion that politics is "a spectator sport, something we watch but do not do," according to Jenkins (p. 10). While Jenkins focuses specifically on media education for teenagers, his findings can be applied to those of any age, particularly as they engage in civic learning throughout their life.

Participatory budgeting provides a prime example of the educational function of collective intelligence. Participatory budgeting is a practice in which a portion of a budget, whether it be that of a city, school, or other community organization, is set aside for community-determined allocation. In participatory budgeting, residents submit proposals for projects to be funded by the allocated budget, and community members vote on their favorite proposal. The winning project is given the funding and additional support for implementation. While the practice began to spread across the United States in 2009, participatory budgeting actually originated from a 1989 initiative in Brazil as a way to regain the public's trust in and engagement with the government following the end of a 21-year military dictatorship (Gilman, 2016). Participatory budgeting performs an educational function by

bringing residents into the budgeting process. By participating in the project, participants learn how to identify community needs, determine project feasibility, draft a budget proposal, and lobby fellow residents to vote for their proposal. Participatory budgeting provides residents with an opportunity to engage in a scaled-down, accessible version of the formal budgeting process, while still creating a real, tangible impact in their community.

In Groningen, one of the Dutch cities studied by Michels and de Graaf (2010), residents participate in participatory budgeting projects through "community teams," groups of residents responsible for coordinating the budgeting process. Michels and de Graaf found that these teams successfully performed an educational function, as "citizens reported that participation had increased their understanding of decision-making processes, and taught them the skills required to deal with bureaucratic processes and procedures" (p. 487). This civic education comes hand-in-hand with a sense of empowerment. Henry Jenkins writes, "Empowerment comes from making meaningful decisions within a real civic context: we learn the skills of citizenship by becoming political actors and gradually coming to understand the choices we make in political terms" (2006, p. 10). By having the opportunity to be a part of the budgeting process, participants leave feeling more informed about the process and more empowered to engage in other aspects of civic life. Residents in Groningen reported that they felt more confident in addressing neighborhood issues and encouraging others to get involved in the budgeting process (Michels and de Graaf, 2010, p. 487).

The second function of participation that Michels and de Graaf identify is an "integrative function" (2010, p. 480). When residents participate in the decision-making process, they feel like a part of the community, and therefore feel a greater personal responsibility for public decisions. As it

currently exists, the traditional policy-making process encourages a disconnection between policy-makers and community members. Citizens, and only citizens, are expected to cast a vote each term and then leave the decision-making up to those who have been voted into power. This is particularly concerning as voting rates in municipal elections are generally paltry, and the vast majority of residents do not provide input as to who will represent them in their local government. In San Antonio, Texas, for example, voter turnout reached a record high of just 13.2% in 2018 (SA2020, 2021). In 2021, the first day of early voting broke the record for first-day turnout in a May election when a mere 7,070 voters cast ballots (Fechter, 2021). Collective intelligence holds the potential to provide an alternative form of civic engagement, one that involves community members in issues that directly affect them and promotes a sense of trust between people who live in cities and elected officials who represent them.

Collective intelligence performs an integrative function by bringing more people to the table than traditional election-based approaches to civic engagement. It opens up the conversation to those who are unable to vote, such as young people or non-citizens. By doing so, it serves to promote a unified identity of "community member" beyond the definition of citizen. Emphasizing this shared identity helps bring people from different backgrounds together to make decisions for the good of all. Other scholars have pointed out the potential benefit of collective intelligence to include these oft-overlooked populations. Gilman writes that participatory budgeting "has worked to empower traditionally marginalized residents, including non-citizens, seniors, people of color, and youth" (2016, p. 5). By expanding the number and kinds of people who can participate in the policy-making process, collective intelligence helps to build a stronger, more engaged community.

Collective intelligence in policy-making also provides an opportunity to bridge divides created by the two-party system in the United States. Party identification as it currently exists requires voters to choose from binary options on a host of complex policy issues. Because of this, people's nuanced positions cannot be taken into account. Collective intelligence allows participants to get straight to the issues, sharing their concerns and ideas, rather than putting faith in political parties to reflect their unique viewpoints. Participatory budgeting exemplifies this, serving as "a compelling example through which to understand civic innovation more broadly, in large part because it directly ties citizens to public decision-making" (Gilman, 2016, p. 2). Rather than presenting a binary choice, collective intelligence centers people in the policy-making process, encouraging them to bring their full range of experiences and knowledge to solve problems.

The third and final function that Michels and de Graaf identify is that "participatory democracy contributes to a greater legitimacy of decisions" (2010, p. 480). Simply put, when more people are involved in the decision-making process, more people are satisfied with the resulting decision. This conclusion is echoed throughout the literature on collective intelligence and participation. Fiskaa writes that "the purpose of public participation is of course to obtain better plans, meaning that they are well accepted by most and therefore easier to carry out" (2005, p. 161). This also helps to fight bias that occurs when decision-making power is concentrated in elected officials and other professionals, who may have more wealth or traditional education than those they represent and for whom they create policy. Therefore, policies created through collective intelligence better satisfy the needs of those they seek to serve.

Using collective intelligence in the policy-making process transfers the value placed on expert knowledge over to the lived experiences of those most affected by policy changes. Daren Brabham refers to this as local knowledge, "knowledge of specific characteristics, circumstances, events, and relationships, as well as important understanding of their meaning, in local contexts or settings" (2009, p. 244). Rather than relying on hard data or "spontaneous intuition," local knowledge strikes a balance between the two. While it may not be tested through peer review or in the courts, this experience-based knowledge is "legitimated through public narratives, community stories, street theater, and other public forums" (p. 244). Despite being traditionally overlooked, these perspectives are vital to understanding the specific needs of a given community. Placing value on the knowledge that lives within the community shifts the power dynamics in policy-making, moving toward a more equitable and resident-centered process.

Incorporating more perspectives also opens up the field of policymaking to innovative solutions. Anita Williams Woolley and Erica Fuchs (2011) describe all collective activities on a spectrum from convergent to divergent with opportunities for reflection throughout. Using collective intelligence as a model for civic engagement performs a divergent function by "pushing an existing area of discourse to consider new paths and different perspectives" (Woolley & Fuchs, 2011, p. 1361). This promotes progress in the field, rather than blindly trusting in the continuation of the status quo.

By valuing these local perspectives and exploring new ideas, city governments can create policies that better meet the needs of the community. This goal of creating community-centered policy should inform the process through which input is obtained. Beth Simone Noveck, in her study of crowdlaw, noted that the goal of collective intelligence should be focused on outputs and that attempts

to foster collaboration should center around creating "policies that achieve their intended aims" (Noveck, 2018a, p. 359). In order to do this, the mechanisms and strategies through which input is acquired must be inspired by the desired output. Achieving this goal requires thinking critically about the type of problem-solving that is needed and about what makes a collective intelligence project effective.

Criteria for Effective Collective Intelligence Projects

In order to maximize the impact of a collective intelligence project, there are a number of criteria to keep in mind. The first is that, in order to incorporate a diversity of viewpoints, participants must find contribution to the project relatively easy. Henry Jenkins identified this in his study of participatory cultures, writing that one aspect of a participatory culture is that it has "relatively low barriers to artistic expression and civic engagement" (2006, p. 3). While Jenkins is speaking specifically about creative communities, similar principles can be applied to creating effective collective intelligence projects. Low barriers to entry encourage participation by more people, thus including more voices and perspectives. Increasing the number of perspectives helps to tackle bias that often appears in traditional policy and decision-making. Eric Bonabeau identifies a number of these biases, such as self-serving bias, belief perseverance, pattern obsession, and negative framing effects (2009, p. 47). These biases can be combated through outreach, by bringing in new voices, or through additive aggregation, by increasing the number of perspectives and finding the average of the inputs (p. 47). Utilizing these approaches in a decision-making process pushes back against each of these biases, allowing for a more well-rounded and equitable final result.

While these low barriers to entry are important, they must be paired with support and incentives for participants during the collective intelligence project. Oftentimes, projects like these run into an issue of retention. Therefore, they must include a mechanism to motivate participants, or one that constantly recruits new participants, and with them, fresh ideas and renewed energy. This could manifest in multiple ways. Jenkins suggests implementing "some type of informal mentorship whereby what is known by the most experienced is passed along to the novices" (2006, p. 3). In order to make a project sustainable in the long-term, it helps to have people who understand the process enough to be able to engage and train the next generation of participants.

One could also follow the model of the United Nation Development Programme's Multi City Challenge Africa. This open-innovation challenge invited residents to submit policy proposals, and the authors of the winning proposals were then invited to a coaching program to further develop and implement their ideas (*About the Multi City Challenge*, 2020). Providing coaching or funding to those who submit the top ideas may encourage more serious, long-term participation. These resources serve a function similar to an accelerator, which "select[s] and invite[s] a small group of entrepreneurs to startup boot camps, providing mentoring, resources, and, most important, industry connections" (Jesseman & von Radecki, 2019, p. 1955). Jesseman and von Radecki found that cities that invested in accelerators to nurture Smart City startups experienced a positive return on investment, though job creation and the development of innovative solutions (p. 1960). By investing in the innovative ideas brought forth in the project, and consequently, the participants who proposed them, cities can implement stronger, more impactful policies, while encouraging participation from residents.

Beyond tangible incentives, it is important to understand participants' intrinsic motivations that may drive them to engage with a project. Beth Noveck identifies seven incentives that may be compelling to potential participants: knowledge building, community building, skill development, public recognition, competition, civic responsibility, and making a difference (The GovLab, 2020). Each of these incentives should be taken into consideration when developing a collective intelligence project, but the final two are most relevant for encouraging participation in terms of civic engagement. Using collective intelligence for public policy can appeal to potential participants' sense of civic responsibility, and this motivation can be maintained through assurance that their contributions are making a difference. Feller et al. found that "even small amounts of meaningful feedback on proposals, indicating that the idea was read and considered, creates value for the provider and...makes future participation more likely" (2010, p. 9). By letting participants know that their contributions matter, policy-makers and project facilitators gain valuable insight, and participants are motivated to continue contributing.

Many participants in collective intelligence projects are motivated by a sense of duty to their community or by the belief that their contributions matter and will be implemented. This social buy-in is an essential part of collective intelligence. Not only does it allow participants to get the most out of the integrative function of participation, but it also ensures that the educational and decision-making functions are maximized. This buy-in can only be validated if there is an institution tied to the project that is able "to digest all collected knowledge" (Noveck, 2018b, p. 124). Institutions must also be able to "translate that raw data into insights for law and policymaking" in order for it to

be useful (p. 124). This aspect is often overlooked, resulting in great ideas that simply fall through the cracks.

This issue is exemplified in Eindhoven, the Netherlands, where they use a "process of collaborative governance" to encourage citizens to play a greater role in policy decisions (Michels and de Graaf, 2010, p. 482). One way in which they do this is a digipanel, "a citizen's panel on the internet, which allows a permanent group of citizens to be regularly consulted on different policy issues" (p. 484). Despite the positive intentions of this program, participants expressed skepticism about "how the local authorities use the input of the participants," because of a lack of interest from local politicians (p. 484). This distrust can prevent collective intelligence projects from being effective. In these situations, two important issues arise: 1) citizens feel unmotivated when they do not believe their ideas will be taken seriously, and 2) the institution - in this case, the local government - has no mechanism to implement suggestions.

Challenges in Collective Intelligence Projects

Obviously, projects like these come with their own unique set of challenges. This is particularly true for civic collective intelligence projects, which seek to turn traditional policy-making processes on their head. A primary concern that arises from this is a potential loss of control. When power is given back to the people, policy-makers may feel as if they have no decision-making authority. Bonabeau notes that this loss of control can manifest as unwanted and undesirable outcomes, unpredictability, and unassigned liability (2009, p. 48). Establishing an organized system to obtain input and evaluate ideas can help combat these concerns, while ensuring everyone is heard.

In order to generate viable solutions, it is important to strike "the right balance between diversity and expertise" (Bonabeau, 2009, p. 47). Innovative solutions may be exciting, but without people in the room who know what is actually feasible, these ideas have no chance of being implemented. In their study of the Dutch town Groningen, Michels and de Graaf (2010) found that a lack of expertise served as an obstacle to engagement for participants as well. In a local participatory budgeting project, citizens generally felt that they "lack the overall knowledge and expertise required to assess the usefulness and feasibility of the projects" (p. 485). This demonstrates that a lack of balance between expertise and innovation negatively impacts both inputs and outputs in collective intelligence. This challenge can be addressed by ensuring that there are experts involved with the process who are on board with the goal of increasing resident input and who are trained to work with participants, rather than working for or against them.

Another challenge of collective intelligence projects is the potential of misbehavior. This is particularly prevalent in online spaces that provide participants with a level of anonymity and that may reach beyond the intended audience of genuinely engaged participants. Bonabeau notes that "the likelihood that some will misbehave increases with group size" (2009, p. 49). Brabham refers to this disruptive behavior as "crowdslapping" (2009, p. 257). In order to avoid censorship, he suggests establishing a peer rating system that hinges on "a belief in the crowd's ability to self-regulate through community standards" (p. 257). Additionally, he states that a collective intelligence project could include "a specific set of guidelines for written comments... or a specific template for solvers to work within" (p. 253). This sets a clear example for appropriate engagement and allows for coordinators to

police misbehavior that strays from these standards. This helps to ensure that the project is successful and that legitimate participants feel safe and comfortable contributing their ideas.

Conclusion

Collective intelligence has the potential to revolutionize the policy-making process by centering the voices of residents and generating innovative solutions to local policy issues. In seeking to create a collective intelligence project, it may be necessary to set aside some aspects of the literature in order to create a solution that is specific to the context in which the project is being implemented. Collective intelligence is an iterative process, one that is constantly evolving and adapting to its participants and environment. While some projects may be more focused on a desirable output, others may be seeking to enhance the educative and integrative properties of such a project. However, the unifying factor across these projects is the importance of bringing people together to maximize their combined knowledge and experiences to enhance their communal capacity for problem-solving.

Policy-Making Case Study

The Challenge

In San Antonio, there is a significant shortage of affordable housing. The San Antonio Housing Authority (SAHA), the city's governing body for housing, currently operates 6,062 public housing units at 70 properties (San Antonio Housing Authority, 2020a). While they also offer other housing assistance programs, their public housing program has a waitlist of 40,000 people, resulting in two-to-six-year wait times (Olivo, 2021, San Antonio Housing Authority, 2020b). Those on the waitlist must prove their eligibility for public housing through a number of criteria. This includes

earning less than 80% of the area median income (AMI) for the San Antonio Metropolitan Area — currently set at \$40,350 for one-person or \$57,600 for a family of four (San Antonio Housing Authority, 2020b). The area median income is the midpoint in a region's income distribution, meaning that 50% of residents earn more than the AMI annually, while 50% earn less. The 80% AMI cut-off means that 40% of San Antonians qualify for public housing under SAHA's eligibility requirements.

In 2018, The Mayor's Housing Policy Task Force (MHPTF) released a comprehensive report on the housing affordability crisis in San Antonio. They define affordable housing as that which costs less than 30% of a family's income (p.15). A family that spends more than 30% of their income on housing is considered "cost-burdened" (p. 17). In their 2018 report, the MHPTF identified a mismatch between the supply and demand of affordable housing at each income level. They found that "approximately one out of every two renter households is cost-burdened (48 percent)," and that 91,200 of the households that earn under 80% AMI are cost-burdened (p. 17). The inability of the housing market to meet the needs of those earning below 80% AMI is indicative of the severe shortage of affordable housing across the city.

While city officials have tried traditional methods of expanding affordable housing, such as tax credits for developers or subsidies to rehabilitate vacant homes (Olivo, 2019), collective intelligence could elicit innovative solutions to this issue by engaging community members across the city.

Attempts to engage with residents in the past have fallen short, such as the proposed renters' commission that has been under discussion for over a year with little movement (Olivo, 2020).

Establishing an accessible platform for city residents to submit ideas, paired with a plan to ensure that

these policy ideas are taken seriously and implemented when appropriate, could cut through the political noise and generate new solutions to a difficult problem.

This collective intelligence project will focus on policy development within the Neighborhood and Housing Services Department (NHSD) of the City of San Antonio. While SAHA is the entity that runs public housing, focusing policy changes within the NHSD allows for a broader range of interventions that can aid the housing authority in closing the housing gap. Currently, NHSD has limited options for the community to engage with the department. They have a form on their website for contacting the department (Neighborhood and Housing Services Department, 2021a), and they occasionally host virtual community meetings, though these tend to be focused on specific decisions for which they are seeking community feedback (Neighborhood and Housing Services Department, 2021b). They also partner with SA Speak Up, the city's civic engagement arm, to conduct surveys on housing issues, but most of these surveys are currently listed as "under review" (Morales, 2021). While the existing modes of engagement provide points of entry for people to contact the department, there is no ongoing public forum through which residents can propose, engage with, and receive feedback on innovative policy solutions.

Participants and eligibility criteria

Frequently, the voices of those most impacted by policy are left out of the conversation. In a 2017 interview with *Texas Monthly*, San Antonio Mayor Ron Nirenberg said, "Across the board, the problems that we're facing as cities and nations have to do with people not believing that their voice matters" (Hooks, 2017). By using collective intelligence to facilitate community engagement, participants are encouraged to bring their full selves and range of experiences to the policy-making

process. Any resident of the City of San Antonio would be invited to participate in this collective intelligence project, regardless of citizenship status or age (with those under 18 needing parental permission). This allows more community members to be part of the conversation than are traditionally included in civic engagement models that center around voting. While this project will initially be most accessible to those with an Internet connection, future expansion efforts will be focused on going into the community to reach those who are not digitally connected through activities such as door-to-door canvassing and tabling at local businesses and community centers in order to broaden the reach of the program.

Performance tasks

This policy forum would be hosted on a website, created and managed by the NHSD. This website would provide three methods of engagement: ideate, review, and inform. Participants can participate in the ideation process by submitting policy ideas. They can also engage in the review process by upvoting, downvoting, or commenting on these submitted policy ideas. Residents can inform this process by filling out a survey to share their personal experiences and concerns with housing in San Antonio. Providing multiple entry points for engagement allows more people to share their opinions and engage with the collective intelligence project, promoting equity by broadening the number of people whose voices are heard.

The ideating mode of engagement, policy idea submissions, will require a higher level of commitment from participants, in order to ensure a high quality of responses. In order to post policy ideas, participants will be required to create a profile on the site. This includes filling out a form that asks them to share their name, email address, and zip code. Requiring their name and email address

discourages the creation of fake accounts. Including the resident's zip code allows the NHSD to gain a better understanding of what parts of the city are most and least engaged. This information can be used to inform future strategies and to encourage the project facilitators and policy-makers to concentrate on less-engaged areas of the city that may currently be left out of policy conversations.

To help participants submit the best possible policy proposals, they will be given the following instructions on what to include. The proposals should each include: 1) Title of your idea (60 characters); 2) Description of your idea (2000 characters); 3) What is the anticipated impact? (2000 characters). This format is adapted from the UNDP and GovLab Multi City Challenge Africa, a collective intelligence project designed to garner ideas from residents of the continent (Noveck and Busetto, 2020). Each submission will then be made public on the site, displayed like sticky notes on a single page, with the title of the proposal and the name of the participant who submitted it visible.

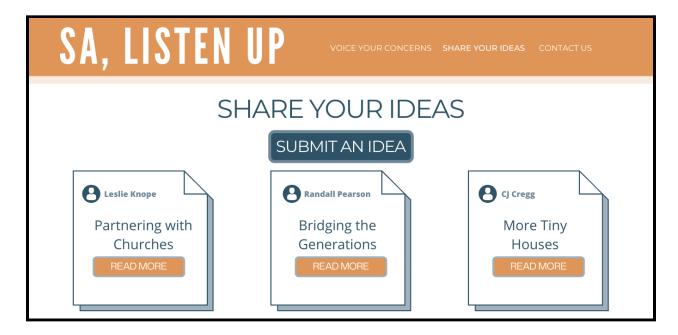


Figure 1. Share Your Ideas page featuring names of ideas, with option to 'Read More'

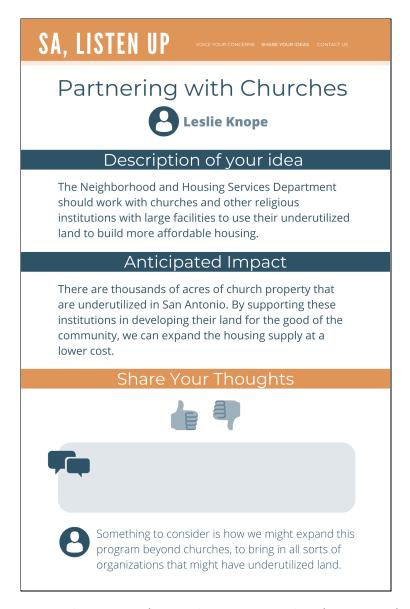


Figure 2. Idea Proposal page showing more details about policy

When the user clicks on 'Read More,' they are taken to a separate page for the policy proposal. Here, the title of the proposal, the description, and the anticipated impact are all listed. At the bottom of the page, there is an option for participants to give the proposal a thumbs up or thumbs down, and to leave a comment. Other participants' comments are made visible to generate conversation about modifications to or criticisms of the proposed idea. The goal is to spur discussion about policy ideas,

not to tear them down. To ensure that the dialogue taking place is productive, the Community

Engagement Coordinator, the NHSD employee who is responsible for managing the site, will also have
the capability and authority to delete comments. This process allows the NHSD to see which policy
proposals are gaining traction. Every six months, the top three policy proposals will be chosen for a
feasibility study, bringing them to the desk of other employees of the NHSD to determine if they have
potential to be implemented.

Participant incentives

There are three primary incentives that will be utilized to encourage participants to engage in this project: 1) competition, 2) civic responsibility, and 3) a belief that they are making a difference.

The competition comes from the peer-rating system that boosts popular proposals to the top of the page. The reward of potentially having their policy implemented would promote friendly competition and encourage participants to put forth the best policy proposals they can.

Because the policy solutions will have a direct impact on the city of San Antonio, residents' sense of civic responsibility will also be a motivating factor. Successful solutions will improve the community by expanding access to affordable housing, and this knowledge that they will be bettering their community will help motivate people to participate. This motivation is intrinsically linked to the final motivation, the belief that they are making a difference. In order to ensure that people feel like their contributions are having an impact, the NHSD must prove that they are committed to implementing popular viable solutions.

Implementation

While all of the Neighborhood and Housing Services Department will ultimately be involved in this project, it will be important to hire one staff member who is strictly focused on the collective intelligence project. This person will bear the title of "Community Engagement Coordinator". The Community Engagement Coordinator must be adept at encouraging community participation and conversation in order to gather feedback and ensure the project runs smoothly. In the beginning, their job will mainly be focused on monitoring the website, as well as developing and implementing a communication strategy to get the word out. This would include managing the project's social media accounts and hosting events to connect with community members to build excitement for the project. Their success at this time will be measured by the growth of the website over the first six months. As people begin to engage with the site, the Community Engagement Coordinator's tasks will shift to moderating comments and ensuring that dialogue is productive and constructive. Their goal is to create a positive online environment and to increase the number of engagements on the site over time - whether through the number of quality policy proposals or up/downvotes and comments.

Because the collective intelligence project will begin in a digital-only format, communication about the project will also primarily take place online. It will begin with the creation of Instagram, Twitter, and Facebook pages. The Community Engagement Coordinator will be responsible for sharing regular updates on these pages, as well as responding to direct messages. To spread the word about the project, NHSD will partner with existing government offices and their communications teams to share content. This includes the City of San Antonio social media pages, as well as those of elected officials. After existing free channels have been exhausted, they will launch a Facebook and Instagram ad campaign to target those in traditionally underrepresented communities and

neighborhoods to raise awareness of the project. These are effective mediums to reach people across racial and socioeconomic groups. In the United States, 69% of adults earning less than \$30,000 a year and 80% of Hispanic adults reported using Facebook in 2021 (Pew Research Center, 2021).

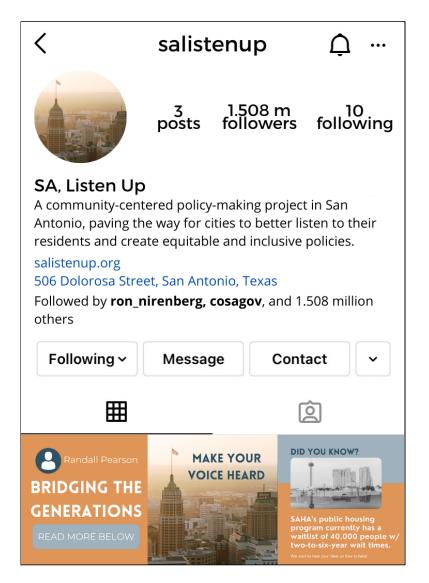


Figure 3. Example of SA, Listen Up's Instagram Page

As the COVID-19 pandemic subsides and the project takes off, the engagement strategy will expand to in-person events. Twice a month, in-person events should be held, such as tabling or canvassing in underrepresented neighborhoods, to spread the word and increase equitable engagement

in the project. Ideally, all members of the NHSD, regardless of role, would engage with this aspect of the project. However, volunteers may be recruited through social media or through the volunteer deputy registrar networks. By working with existing volunteers who are trained to register people to vote in a bipartisan fashion, the project helps to broaden the definition of civic engagement and encourages bipartisan support, rather than politicizing the process.

The Community Engagement Coordinator will choose a number of grocery stores or community centers in underrepresented areas outside of which they will set up tables. The number of tabling sites will be determined by the availability of volunteers to staff the tables. At each table, volunteers, ideally both English and Spanish-speaking, will set up with iPads and fliers. Shoppers will be encouraged to either fill out the survey at the table, or take a flier with information about the site to peruse at their leisure. Other teams of volunteers may be sent door-to-door to conduct a similar process.

The Community Engagement Coordinator will also be responsible for interpreting the results from the survey and updating the website with the top issues. The primary goal of the survey is to generate prompts for the policy proposals. By analyzing the survey data from the past several months and gathering insights from public fora, such as City Council or Housing Commission meetings, the Community Engagement Coordinator will determine the top three concerns voiced by citizens. These concerns will be listed on the top of the policy proposal page. After the first six-month period, when participants log onto the website to submit their policy proposals, they will be able to choose which concerns their policy addresses. They can choose from any of the three concerns or "other," by checking the boxes at the bottom of their page.

For the first year of the program, the NHSD should secure \$1 million from the San Antonio City Council specifically for this collective intelligence project, which they will then use to fund the Community Engagement Coordinator position and policy ideas as they see fit throughout the year. In order for funding to be approved, it must be included in the city budget, which is passed by the San Antonio City Council by a simple majority each year in mid-September. For example, in the 2021 FY Budget, \$27.5 million was allocated to affordable housing initiatives, and portions of this budget were earmarked for specific programs (Morales, 2020). Some of this funding comes from block grants, while the rest is allocated from tax revenue (City of San Antonio, 2020, p. 50). This allows the project to function almost like a participatory budgeting process. Because the funds already exist, the question becomes which projects will be implemented, rather than if any will be. This incentivizes the NHSD to take a chance on promising policy proposals. In order to maximize their impact and attempt a variety of programs, the NHSD may suggest a scaled-down version of the policy proposal as a pilot to see if it works before expanding across the city.

While upvotes help decide what ideas are popular among the public and should be evaluated for feasibility, the ultimate decisions of which policies will be implemented come down to the NHSD. This allows for a balance between innovative ideas and realistic policy solutions and ensures participants know their contributions will make an impact. At the end of each six-month period, the Community Engagement Coordinator will identify the top three most popular policy proposals, as determined by the number of upvotes. They will connect with each of the policy proposers to let them know that their ideas have been chosen for a feasibility check and to invite them to be part of the process. While participants are not required to join in on the policy-making process, they are

encouraged to give their feedback and to share their vision for the policy. After connecting with the participants, the Community Engagement Coordinator will present the top three ideas to the rest of the NHSD, in the form of a report that includes the ideas, comments from the site, and any insight gathered from the conversations with the participants. This report would be handed off to the existing NHSD policy analysts to conduct the feasibility study.

The feasibility study will require bringing together relevant stakeholders in the Neighborhood and Housing Services Department to determine whether the policy could be implemented successfully, culminating in a public report. This final report will include the relevant information that the NHSD would need in order to implement the policy. To start, it will evaluate the existing policy landscape, including information on whether this idea has previously been attempted, and if so, what worked and what did not. It will detail the steps needed to enact this policy proposal, from further development of the policy idea to possible zoning change approval from the Housing Commission.

Some plans may include partnering with other city departments, such as the Department of Historic Preservation. If so, these organizations should be brought into discussions throughout the evaluation process, and their input should be included in the final report.

The report will also include an evaluation of the potential realistic impact, building upon the anticipated impact laid out in the policy proposal. This includes the number of housing units that would become available, the number of individuals who would be impacted, both positively and negatively, and factors such as public safety, health, and environmental impact. Importantly, a lens of racial equity should be applied throughout the process. This requires constantly asking questions such as: Will this policy proposal promote equity in the housing market? Will it benefit San Antonio

neighborhoods that have traditionally been underserved, such as the Eastside? Does it take into account and seek to remedy the impact of historically discriminatory housing practices? Finally, the feasibility study will evaluate the expected cost of the program and determine how much, if any, of the collective intelligence budget should go toward implementing this plan.

If the policy idea is determined to be infeasible by the NHSD policy analysts, it will be "frozen" on the site, meaning that it will no longer accept comments, upvotes, or downvotes. In addition to being "frozen," the feasibility report will be attached to the policy proposal, along with a comment box specific to the feasibility report. If residents have concerns with an aspect of the feasibility study, they are welcome to voice those concerns. The policy proposal and report will stay on the site for transparency and accountability. The person who contributed the policy idea will still feel as if their idea was heard and considered, and the NHSD remains accountable for their decision to freeze the proposal.

In addition to making the feasibility report public, the NHSD will also be held accountable to its project participants by hosting public meetings twice a year, organized by the Community Engagement Coordinator. These meetings would be focused on the innovative solutions generated by the collective intelligence project. The presentation will include announcing the top policy proposals of the past six months. This would generate excitement around the meetings and motivate attendance from those who have participated in the project virtually. The second half of the presentation will be focused on sharing information about the feasibility studies that have recently been conducted. This would allow time for participants to question these decisions, raise concerns, or propose alternative solutions. This continues the conversation, encouraging iteration rather than the abandoning of ideas.

Conclusion

This project brings together best practices in collective intelligence to promote a new form of civic engagement, one that involves residents more directly in the policy-making process. Rather than surveys, it provides an ongoing forum with opportunities for feedback and iteration in order to produce innovative policy solutions that work. The detailed implementation process will ensure that these solutions are heard and considered, instead of falling through the cracks. By adopting this community-centered policy-making project, San Antonio can pave the way for cities to better listen to their residents and create equitable and inclusive policies.

References

- About the Multi City Challenge. (2020). Multi City Challenge | Africa. https://africa.multicitychallenge.org/about.html
- Bonabeau, E. (2009). *Decisions 2.0: The Power of Collective Intelligence*. MIT Sloan

 Management Review.

 http://www.icosystem.com/site/wp-content/uploads/2013/04/Bonabeau_Sloan-Mgmt-Review_Collective-Decisions.pdf
- Brabham, D. C. (2009). Crowdsourcing the Public Participation Process for Planning Projects.

 *Planning Theory, 8(3), 242–262. https://doi.org/10.1177/1473095209104824
- City of San Antonio. (2020). Adopted Operating & Capital Budget: FY2021.

 https://www.sanantonio.gov/Portals/0/Files/budget/FY2021/AdoptedBudget.pdf
- Feller, J., Finnegan, P., Hayes, J., & O'Reilly, P. (2010). Leveraging 'The Crowd': An Exploration of how Solver Brokerages enhance Knowledge Mobility. *ECIS 2010 Proceedings*. 1-13. http://aisel.aisnet.org/ecis2010/16
- Fiskaa, H. (2005). Past and future for public participation in Norwegian physical planning. *European Planning Studies*, 13(1), 157–174.

 https://doi.org/10.1080/0965431042000312451
- Gilman, H. R. (2016, January). Engaging Citizens: Participatory Budgeting and the Inclusive

 Governance Movement within the United States. Ash Center for Democratic Governance

- and Innovation, Harvard Kennedy School.

 https://ash.harvard.edu/files/ash/files/participatory-budgeting-paper.pdf
- Hooks, C. (2017, July 27). Ron Nirenberg on Changing the Conversation. *Texas Monthly*. https://www.texasmonthly.com/news-politics/changing-the-conversation/
- Jenkins, H., Clinton, K., Purushotma, R., Robison, A., & Weigel, M. (2006). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. The MacArthur Foundation. https://files.eric.ed.gov/fulltext/ED536086.pdf
- Jesemann, I. R., & von Radecki, A. (2019). Local Accelerator Programs Towards Increasing Innovation Within Smart Cities. *Procedia Manufacturing*, 39, 1953–1961. https://doi.org/10.1016/j.promfg.2020.01.236
- Lévy, P. (1999). Collective Intelligence: Mankind's Emerging World in Cyberspace (Helix Books). Basic Books.
- Mayor's Housing Policy Task Force. (2018, August). San Antonio's Housing Policy Framework. City of San Antonio.
 - https://www.sanantonio.gov/Portals/0/Files/HousingPolicy/Resources/SA-HousingPolicyFramework.pdf
- Michels, A., & De Graaf, L. (2010). Examining Citizen Participation: Local Participatory Policy

 Making and Democracy. *Local Government Studies*, *36*(4), 477–491.

 https://doi.org/10.1080/03003930.2010.494101

Morales, M. (2020, September 17). City of San Antonio's Fiscal Year 2021 Budget Makes Investments in Public Health, Housing and Workforce Development. The City of San Antonio - Official City Website.

https://www.sanantonio.gov/gpa/News/ArtMID/24373/ArticleID/19454/City-of-San-Antonio%E2%80%99s-Fiscal-Year-2021-Budget-Makes-Investments-in-Public-Health-Housing-and-Workforce-Development

- Morales, M. (2021, January 27). *Policy for Neighborhood Registry*. SASpeakUp.

 https://www.saspeakup.com/Speak-Up/Survey-Details/ArtMID/27435/ArticleID/19910/Policy-for-Neighborhood-Registry
- Neighborhood and Housing Services Department. (2021a). *Contact NHSD*. City of San Antonio. https://www.sanantonio.gov/NHSD/About/Contact?sendto=NHSD
- Neighborhood and Housing Services Department. (2021b, February 9). *Calendar of Events*. City of San Antonio. https://www.sanantonio.gov/NHSD/Events
- Nesta. (2020, February 10). The Future of Minds and Machines: How artificial intelligence can enhance collective intelligence.
- Noveck, B. (2018a). Crowdlaw: Collective Intelligence and Lawmaking. *Analyse & Kritik*, 40(2), 359–380. https://doi.org/10.1515/auk-2018-0020
- Noveck, B. (2018b). Forging Smarter Cities through CrowdLaw. *Media and Communication*, 6(4), 123–126. https://doi.org/10.17645/mac.v6i4.1665

- Noveck, B., & Busetto, B. (2020, November 23). How cities can benefit from the 'Collective Intelligence' of their residents. UNDP.
 - https://www.africa.undp.org/content/rba/en/home/blog/2020/how-cities-can-benefit-from-the-collective-intelligence-of-their.html
- Olivo, B. (2019, August 19). Five takeaways: City Council offers critiques, suggestions for \$34.4M affordable housing plan. *San Antonio Heron*.

 https://saheron.com/five-takeaways-city-council-offers-critiques-suggestions-for-34-4m-afford able-housing-plan/
- Olivo, B. (2020, March 3). Treviño: "The renters commission is going to happen. I'm positive of that." San Antonio Heron. https://saheron.com/trevino-the-renters-commission-will-happen/
- Olivo, B. (2021, March 4). Charter amendment intended to add "affordable" housing in San Antonio.

 Here's what you'll be voting on in May. San Antonio Heron.

 https://saheron.com/charter-amendment-housing-may-election/
- Pew Research Center. (2021, April 7). Social Media Fact Sheet. Pew Research Center: Internet, Science & Tech.
 - https://www.pewresearch.org/internet/fact-sheet/social-media/?menuItem=ad42e188-04e8-4 a3c-87fb-e101714f1651
- SA2020. (2021, January 29). Community, Leadership, Institutional Accountability, Equity, Civic Engagement, Collaboration. https://sa2020.org/result/community

San Antonio Housing Authority. (2020a, August 7). *About*. SAHA. https://www.saha.org/housing/about-saha/

San Antonio Housing Authority. (2020b, October 20). *Apply for Housing*. SAHA. https://saha.org/housing/find-a-home/apply-for-housing/

The GovLab. (2020, September 28). 8.2 Using Collective Intelligence | Beth Simone Noveck [Video]. YouTube. https://www.youtube.com/watch?v=BMdK-5KkWpA

Woolley, A. W., & Fuchs, E. (2011). Collective Intelligence in the Organization of Science.

Organization Science, 22(5), 1359–1367. https://doi.org/10.1287/orsc.1110.0648