Eliciting Alternative Economic Futures with Working-Class Detroiters: Centering Afrofuturism in Speculative Design

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ABSTRACT

Economic crises such as the global recession and financial crisis of 2007 and 2008 and the Coronavirus disease (COVID-19) pandemic, have elevated new forms of economic cooperation. Supporting efforts in finding alternatives to capitalism requires understanding the role of design in imagining alternative economic futures and reaching those most harmed by current capitalistic models. Through a collaboration between a community organization in Detroit and a team of university researchers, we hosted and facilitated a five-week workshop series with Black and Brown working-class Detroiters where they collectively imagined alternative economic futures using speculative design. They proposed *Community Capitalism*, *Childcare Collectives*, and *Village-Based Childcare* as alternative economy concepts from the workshops and described their unique characteristics and traits of love, care, and inclusion. Aligning with generative justice frameworks, Detroiters prioritized sustainable families and communities. We contribute an understanding of technology's role in the imagined economic futures, a discussion of what this means for community-involved governance, and a push for centering Afrofuturism in speculative design approaches to foster futures literacy.

CCS CONCEPTS

• **Human-centered computing → Empirical studies in HCI**.

KEYWORDS

alternative economies, capitalism, Afrofuturism, speculative design, community-based participatory research, Detroit

1 INTRODUCTION

The continuing economic crises (e.g., the global recession and financial crisis of 2007-2008 and the more recent Coronavirus disease (COVID-19) pandemic, among others) have elevated alternative

forms of economic cooperation, such as solidarity economies, the sharing economy, and other economic models [45] relative to capitalism. Capitalism is a political economy in which employers hire workers to produce goods and services to be marketed and exchanged for a profit, and it is the predominant mode of production worldwide [12]. Proponents of capitalism argue that capitalism stimulates economic growth and wealth creation, innovation, creativity, and competition, which theoretically lead to better products at lower costs [18]. Opponents argue that capitalism drives "winners" and "losers," leads to significant wealth and income inequalities [44], and has brought uneven development, population explosion, changes to the workplace and household, and harmed our environment with its constant need for growth and destruction of our natural environment [12]. In addition, United States (U.S.) capitalism originated from slavery, and racism continues to undergird capitalism in the country [7, 24, 39].

Sociologist Ruha Benjamin examines technology's role in reinforcing racism and concludes her book *Race after Technology* with a call for "creating alternatives that bring to life liberating and joyful ways of living in and organizing our world" [9, p. 197]. Our work picks up Benjamin's call to action and aligns with past scholars responding to this call [11, 30, 50, 69]. Within Human-Computer Interaction (HCI), scholars and designers have identified approaches that could help to disrupt and redesign existing sociotechnical infrastructures and repair their harm to minoritized people and communities. Approaches like speculative design have been adopted to provoke discussions about what the future might look like and how technology might be used [14, 40, 77]. Building on this effort, this work offers direction toward reaching just economic futures from the lenses of our community participants and guidance to reach their envisioned futures.

Our work takes place in Detroit, one of the largest Black-majority cities in the United States, with a Black population of 78% [15]. Economically, Detroit has been declining for several years due to the city's automotive industry collapse, racial segregation, white flight, and politics [4]. Embedded within Detroit's history are race relations regarding Black and white labor unions and class struggle [66]. Land clearance, land theft, surveillance, and the dispossession of Black and Brown neighborhoods are central themes to Detroit's past *and* present [43, 48, 61, 78]. However, most narratives have not captured the richness and beauty of Detroit's history [48]. For this reason, Detroit has a long history of resistance, and the city is seeing a resurgence. Detroiters are beginning to counter and reframe the narrative toward abolition. They have done so by resisting carceral, racist, and capitalist frameworks by imagining alternative futures demonstrating the possibility of liberation. Our work aims to extend such efforts.

Moving toward economic sustainability requires identifying new economic models that support communities, especially those historically marginalized. It also requires reimagining justice and moving toward models of solidarity [9]. One way to reach this goal is to create spaces where community members can re-imagine alternative economic models building on the strengths and values of their own communities. In this work, we leverage and adapted a version of the Building Utopias workbook, an Afrofuturisticspeculative design workbook containing innovative probes to encourage speculative and critical design thinking from an Afrofuturism lens (see [13, 14] for more information on the design process of this workbook). Afrofuturism is a genre of speculative fiction that consciously explores futures created by and featuring pan-African experiences as a means of empowerment. In partnership with a Detroit non-profit organization fighting for economic justice for Black and Brown working-class people, we hosted and facilitated a 5-week remote workshop series to elicit technology and design futures for its ability to evoke imagined futures in this space. Our goal was to answer the following research questions (RQs):

- RQ1: How do Black and Brown working-class Detroiters envision utopian alternative economies?
- RQ2: What are the inherent traits and characteristics of their utopian alternative economies?

We found that Detroiters' imagined alternative economic futures included *Community Capitalism*, *Childcare Collectives*, and *Village-Based Childcare*. Their imagined futures prioritized people, families, and communities and aligned with frameworks of generative justice and solidarity economies (RQ1). Utopian characteristics and traits included love, care, and inclusion, which were necessary to achieve community-based governance and agreement (RQ2). Addressing our two research questions helps to conceptualize possible ways to resist and transform capitalism through design. Transforming capitalism in an emancipatory direction necessitates an acknowledgment of our past, eliciting key values, and attending to people's capacity to understand their role in the future (i.e., futures literacy [64]). Aspects of futures literacy depend on being reflexive about different future engagements, knowledge of the underlying power structures, and how we arise to varying approaches to the future [64].

2 RELATED WORK

To situate our work, we review recent HCI calls for alternative economies and the use of Speculative Design and Afrofuturism to reimagine alternative futures.

2.1 A Call for Alternative Economies in Design Research

A generation of designers, entrepreneurs, politicians, civic activists, and other professionals have begun to turn away from capitalism [83]. Similarly, an emerging group of HCI researchers and designers, rather implicitly or explicitly, have also called for locating and speculating alternatives to capitalism [56, 58]. These calls align well with scholars from sustainable HCI (e.g., [25, 51, 76]). However, the vision for a "preferred" alternative remains unclear [83, p.21]. While many of us are not and do not claim to be economists [84], one of our goals is to understand and explore the role of design and

technology in supporting such economic alternatives [76]. There is a general acknowledgment that design plays a role in perpetuating injustices, operating in service to businesses and institutions, and measuring its primary value in profits [83]. And researchers have explored in depth why design and social computing projects aimed to reduce social inequalities were often unsuccessful [84]. However, recent efforts have looked at designers as change facilitators and working with those impacted by the designs they aim to improve and repair [20, 27, 47, 79], calling for relational design practices [27, 60]. Within the Designing and Interactive Systems (DIS) community, Wolf et al. argue that "for social computing fields to fully contribute in building new, fairer and more equitable futures of work, we need to understand and account for capitalism's mechanisms of domination, how larger socioeconomic structures impact workers and their working conditions, and how capitalism figures into pro-labor projects' abilities and limits to intervene into contemporary workplaces" [84, p.440]. Our work aligns with these researchers and designers and describes one approach to identifying characteristics of alternative economic futures.

Hannah Appel, an economic anthropologist, states that "there is a proliferation of ideas lying around; the once politically impossible is listing toward the inevitable. The economic imagination is at work, often in the most unexpected places" [2, p.619]. Thus, it is valuable to understand the various economies that flourish alongside capitalist modes of production and exchange [42]. In the next section, we review many of these alternative economies as discussed in emerging HCI literature.

2.2 Emerging Alternative Economies in HCI

Eglash defines generative justice as "The universal right to generate unalienated value and directly participate in its benefits; the rights of value generators to create their own conditions of production; and the rights of communities of value generation to nurture self-sustaining paths for circulation"[29, 382]. Generative justice offers a way to rethink technology, economics, ethics, and politics [29]. Generative justice serves as a framework that encapsulates the common principle, "the bottom-up circulation of unalienated value, [29, 373] held within new forms of social justice, such as open-source computing [49], urban gardens, community compositing, and other forms of gift exchange; "maker" movements; peer-to-peer music distribution; and worldwide grassroots activism for sexual diversity. Indeed, HCI scholars have investigated many of these emerging movements quite extensively. However, many of these efforts often fail to reach those experiencing significant forms of marginalization. Take, for instance, Irani's work on hackathons in India. Hackathons developed in open-source cultures and embody the "maker" culture [46]. Despite good intentions, Irani uncovered how hackathons "became a vehicle for collectively imagining how we might change the world beyond the screen" [46, p.815]. However, hackathons are complex and often lead to failed results, if any at all. They often fail to accommodate those who have no voice [46]. The following paragraph provides additional efforts to reach such populations; however, they are infrequent. As we reviewed the research, the guiding question we asked was, "What role do technology and design play, if any, in supporting the economic futures of those facing severe economic constraints or who experience multiple

forms of marginalization?" We draw from a few past studies that might exemplify how technology could play a role.

Carroll and Bellotti have considered the consequences and trajectories of the evolutionary design of new currency systems (e.g., alternative and complementary exchange innovations and currency such as timebanks, local/community currencies, person-to-person collaborative economy, and cryptocurrencies) in the space of Computer-supported cooperative work (CSCW) [17]. They suggest that such alternatives address the downsides of money and raise the opportunity for CSCW and socio-technologists to reform global financial systems through design. One example is Knowles et al.'s design of *Barter*. This system challenged underlying economic models by recording a community's monetary flow to help generate and grow local wealth [52]. The concept eliminates the need for local economic transfer systems (LETS) while promoting just economic transactions. Robinson et al. draws upon opportunities for Artificial Intelligence (A.I.) to identify fake kente cloth generated by factories from authentic hand-made kente cloth [73]. The authors propose contributing to this space and supporting populations rarely considered in large Human-computer interaction (HCI) venues within the Association of Computing Machinery (ACM). Specifically, Ghana was urged to enact a law to deal with fake and counterfeit goods, including textiles—a loss estimated at GHC 5.7 billion or over USD $1 billion [35] and these authors propose fake kente cloth generators as a way to support the country and the people being impacted most by the revenue loss.

Solidarity economies are also emerging in HCI. A solidarity economy approach starts with the belief that "people are deeply creative and capable of developing their solutions to economic problems, and that these solutions will look different in different places and contexts" [67, p. 28]. The approach identifies current and emerging alternatives and puts them into view. Solidarity economy, or social and solidarity economy (SSE) approaches, are active collective visioning processes [67]. We were inspired by these approaches and their alignment with design practices like Afrufuturist design fiction and participatory speculative design, which we discuss next.

2.3 Design Approaches to Envisioning New Possibilities: Speculative Design and Afrofuturism

Dunne and Raby argue that visioning creates spaces for debate about alternative futures and discussing ways of being [28]. They argue that visioning is crucial and requires that we forget how things are and imagine how things might be. Design approaches to envisioning new and future possibilities include speculative design, future casting, and scenario development [28, 38, 53]. Speculative design approaches help to critique design and align with other design practices like Afrofuturism and design fiction to pose challenging questions about the relationship between technology, design, and culture [33, 82, 85]. The approach exists in contrast to largely uncritical design approaches present in industry and academia [28]. Interest in speculative design approaches is emerging in HCI research [5, 85]. Speculative design provokes discussions around what the future might look like, raises questions about the consequences of technology, and helps to reimagine how technology might be used [3, 8, 62].

Our project leverages speculative design to understand technology's role in supporting utopian and contributing to dystopian futures among marginalized communities. We draw from Bray and Harrington's Building Utopias workbook that centers on Afrofuturistic speculative design [13], which contains innovative probes to elicit technology and design futures.[1] This booklet emerged from a case study that examined technology's role in the imagined futures of Black young adults in a Chicago summer design program [40]. The authors found that Black young adults struggled to envision a future without the existing social issues they face today. Past results suggest that futuring is confounded by race and social class, and envisioning futures requires disruption within a system that normalizes oppression. They turned to cultural hegemony, which speaks to technologies and spaces that privilege certain groups and identities and limited their participants' abilities to be radical in speculating futures. Thus, these young adults' utopian ideals relied on basic resource access, and futuring was limited to what they knew and saw daily.

Afrofuturism critiques the ways that Black people have been marginalized in the past and, through the use of science and technology, empowers Black people and communities rather than further their oppression [8, 22]. Afrofuturism is often presented through artistic and creative forms such as music, literature, and art and presents a new way of engaging marginalized perspectives into speculative design [81]. Extending recent HCI scholarship inspired by Afrofuturism [14, 41, 50], we use Afrofuturism to acknowledge the existing alternatives to capitalism while creating a space to re-imagine what is possible and what might be necessary going forward.

3 BACKGROUND AND RESEARCHER POSITIONALITY

The connection between the university team and the community partner (referred to as "we" and "the team" in later sections of the article) was somewhat serendipitous. At a pre-inauguration event in 2021 to signal the country's transfer of political power, the community organization led a community-based envisioning session. The goal of the virtual session was to place stories of multiracial working-class individuals from the state to prepare what they needed for a beautiful future. One of the key beliefs conveyed by the community organization was that everyday people are at the center of the movements necessary to transform society so that everyone lives with joy and dignity in the future.

The event discussed the tragedies, challenges, and triumphs of 2020 and the hard lessons learned. The full session of events was live-streamed via Zoom, and attendees were randomly placed into breakout rooms to discuss the session in more depth and provide visions of their future. This session set the initial scene of the partnership, which aimed to actualize community visions.

Tawanna, the lead author, attended the session. Toward the end of the smaller group session, she provided contact information, asking if the session organizer would be willing to discuss technology's role in the future. Tawanna exchanged emails with Joanna, the community organizer, and co-author, to discuss opportunities

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[1]Readers can refer to https://www.buildingutopiadeck.com/ to learn more about and access the Building Utopia toolkit, including the card deck and the workbook.

for collaboration. Specifically, Tawanna and Alex, co-authors from the university team, wanted to explore the possibility of the community organization helping to facilitate design sessions as outlined and shared in the university team's funded proposal or advertise our sessions. It was understood that the organization might not have the bandwidth to provide this type of support. However, the university team's funding would cover the costs of recruiting and facilitation by a staff member and attendees' time. It was also understood that university relations with non-profits have not always been fair and sometimes harmful to the community. Given the team's unique makeup—academic researchers, community leaders, and activists—it was essential to discuss reciprocity in terms of who would benefit from the relationship. All stakeholders wanted to avoid one-sided relationships and harm. Thus, the team took the time to understand each other's goals. The non-profit aimed to build local community political power among working-class Detroiters. The research team's goal was to create a space for community members to envision their ideal economic futures and understand the role, if any, of design and technology. After several discussions and meeting with a member of the non-profit's financial team, an agreement was reached, and sessions were planned.

Authors have varying races and ethnicities, genders, and nationalities, and have experienced varying socioeconomic backgrounds. They all have obtained university degrees; however, their academic status varies. While they recognize that there are privileges often associated with their educational achievements, they also recognize that in the United States, this does not guarantee benefits, especially among Black graduates [23, 68] and other racial minorities [16, 23].

4 DATA COLLECTION, PRODUCTION, AND ANALYSIS

Data collection and production occurred remotely and online from late August to late September 2021. Online sessions enabled us to maintain social distancing and COVID-19 protocol recommendations and adhere to our university's IRB guidelines. Our process evolved because we followed a participatory approach. We worked together each week to refine and reflect on our approaches (i.e., as described later, we integrated community participant feedback received after each session, we voted on the organization's top values in Week 2 and used a tree metaphor to articulate week four findings).

For compensation, we emailed participants who returned their packets a $100 electronic gift card (we gave them the option to choose from various vendors such as Amazon, Target, Doordash, and local vendors). We additionally contributed funds to compensate staff members and research assistants for their time and for the time of all participants who attended and participated in the sessions. Next, we describe our registration process and details of our protocol and analysis.

4.1 Registration, Consent, and Demographic Survey

Joanna managed participant sign-up and registration. Once she recruited community participants, she shared a link to the university's online consent form and survey. The online survey contained baseline questions about participants' prior knowledge of speculative design and technology concepts, their access to social networks, and a demographic survey (e.g., race/ethnicity, income, employment status, date of birth).

4.2 Workshop Packets

We specifically leveraged the "Building Utopias" workbook (See Figure 1 [13]). Tawanna and Alex delivered 25 "Utopian Future" packets to Joanna, who later distributed 24 packets to community members interested in attending the online sessions. To encourage further engagement, the university team decided to print the packets in color to spark engagement instead of printing in black and white. In total, there were 41 pages, which equated to about 20 pages front and back. The packet introduced new design and technology terms and served as a way for participants to document their thoughts about in-session activities and activities assigned after each week's session. The workshop packets and design sessions were complementary; the packet helped participants prepare for the sessions, and the sessions were designed to help participants complete the workbook.

4.3 Online Workshop Sessions

We conducted five-week online Zoom sessions to align with the workbook and designed a space for participants to share their visions for utopian alternative economies (RQ1). Figure 2 provides an overview of what was covered in each session. The team practiced each week's session a week beforehand to ground both stakeholders and identify any points of confusion that might arise. We also made slides available each week and asked attendees to provide weekly feedback. We used Zoom's chat feature to post questions to everyone and accommodate different engagement methods. We began each session with seven invitations for engagement (e.g., "There are no right or wrong answers, Share responsibility for including all voices in the conversation, and Have Fun!"). We also welcomed participants to add their own invitations. Finally, we invited community participants to serve four roles. As designers, who collaboratively documented design fictions and digital artifacts to imagine new models for employment, economic development, and growth. As technologists who envisioned and imagined how technologies could support new models for economic development and growth. As evaluators, who provided feedback on the workbook created to guide us along this process. And as thought leaders who shared their expertise and wisdom throughout the sessions. Adding these roles, invitations for engagement, and specifically the invitation to share responsibility for including all voices, and allowing multiple channels for engagement including verbal communication, Zoom chat, polls, and emoticons, ensured active engagement among participants and prevented some voices, including the academic and community team members, from being more dominant than others.

In addition to eliciting alternative digital economies, one of the key goals of each workshop was to teach new design and technology concepts. Thus, the standard across each week is the introduction of new concepts (e.g., design fiction, speculative design, alternative economies, new technology terms like Artificial intelligence and machine learning, and video demonstrations). We provide an
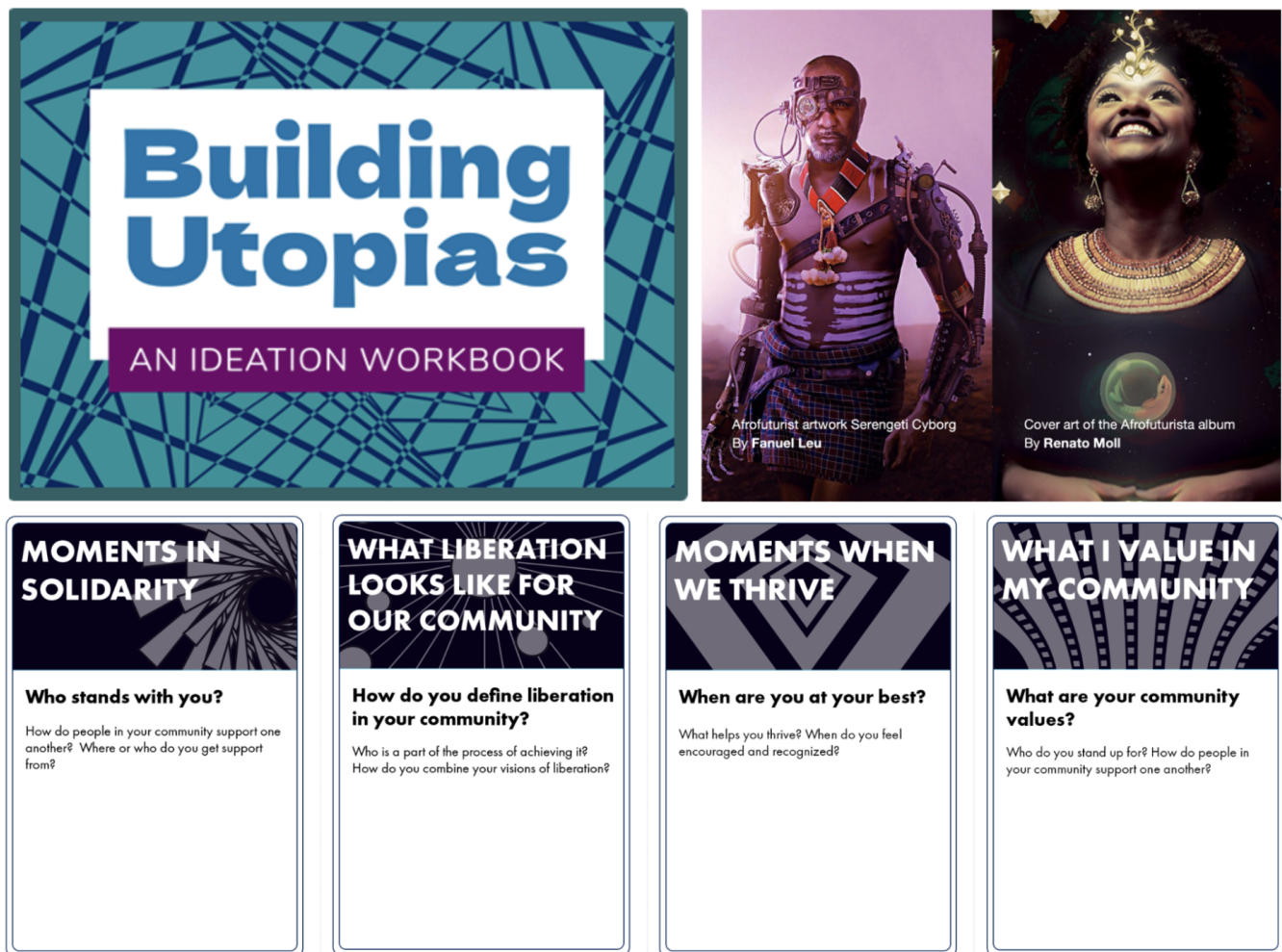
Figure 1: Sections of the "Building Utopias" Workbook and Card deck [13, 14]. Afrofuturist artwork Serengeti Cyborg, by Fanuel Leul, retrieved from https://commons.wikimedia.org/wiki/File:Serengeti_Cyborg,_by_Fanuel_Leul.jpg; Cover art of the Afrofuturista album, retrieved from https://www.flickr.com/photos/renatomoll/26530693432/. Both artworks are cropped for presentation.

overview of what was discussed each week in the next subsections. Note that each new week recapped the prior week, and the final week recapped all sessions and allowed participants to reflect and share their visions of alternative economies.

4.3.1   Week 1: Speculative Design Introduction. Our first workshop was an introductory session overviewing the workshop's goals: to elicit alternative digital economies and understand technology's role in supporting them. Since the workshop was centered on alternative economies, we chose not to introduce or define *capitalism* and instead introduce and define *economy*[2] We also introduced new design terms, such as design fiction[3] and speculative design, and

emerging technologies, such as Artificial Intelligence and machine learning. Following Harrington and Dillahunt, we showed short video clips from Black Mirror, a science fiction anthology series, to spark ideation and "out of the box" thinking [40]. These clips also helped to set the scene for envisioning exercises and provided concrete examples of technologies that depicted speculative futures. Two of the brief clips shown included "The Entire History of You," a clip showing how an embedded memory implant could record all daily activities and interrogation stemming from having this knowledge, and "Nosedive," a clip demonstrating how the accumulation of social credit, or not, affects one's socioeconomic status. These clips helped to convey technological advancement and dystopian (or utopian for some) futures.

4.3.2   Week 2: Speculative Design: Alternative Economies and Community Values. We introduced the "Building Utopias" workbook
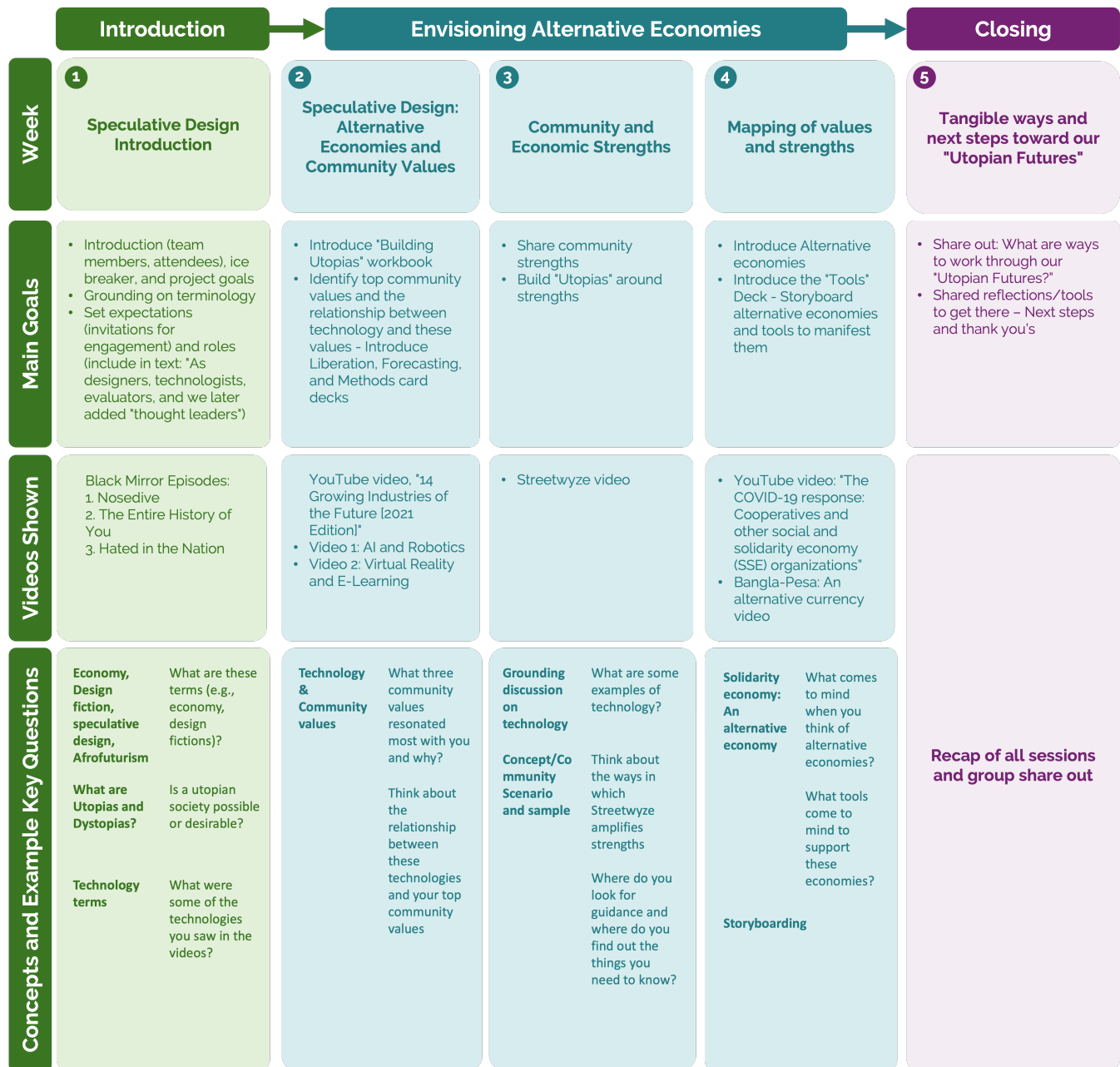
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[2]"A system of making and trading things of value" that "assumes a medium of exchange, which makes trade possible (https://simple.wikipedia.org/wiki/Economy)."

[3]We defined design fiction as a design practice aiming at exploring and criticizing possible futures by creating speculative, and often provocative, scenarios narrated through designed artifacts.

	Introduction	Envisioning Alternative Economies			Closing
Week	**1** Speculative Design Introduction	**2** Speculative Design: Alternative Economies and Community Values	**3** Community and Economic Strengths	**4** Mapping of values and strengths	**5** Tangible ways and next steps toward our "Utopian Futures"
Main Goals	• Introduction (team members, attendees), ice breaker, and project goals • Grounding on terminology • Set expectations (invitations for engagement) and roles (include in text: "As designers, technologists, evaluators, and we later added "thought leaders")	• Introduce "Building Utopias" workbook • Identify top community values and the relationship between technology and these values - Introduce Liberation, Forecasting, and Methods card decks	• Share community strengths • Build "Utopias" around strengths	• Introduce Alternative economies • Introduce the "Tools" Deck - Storyboard alternative economies and tools to manifest them	• Share out: What are ways to work through our "Utopian Futures?" • Shared reflections/tools to get there – Next steps and thank you's
Videos Shown	Black Mirror Episodes: 1. Nosedive 2. The Entire History of You 3. Hated in the Nation	YouTube video, "14 Growing Industries of the Future [2021 Edition]" • Video 1: AI and Robotics • Video 2: Virtual Reality and E-Learning	• Streetwyze video	• YouTube video: "The COVID-19 response: Cooperatives and other social and solidarity economy (SSE) organizations" • Bangla-Pesa: An alternative currency video	
Concepts and Example Key Questions	**Economy, Design fiction, speculative design, Afrofuturism** — What are these terms (e.g., economy, design fictions)? **What are Utopias and Dystopias?** — Is a utopian society possible or desirable? **Technology terms** — What were some of the technologies you saw in the videos?	**Technology & Community values** — What three community values resonated most with you and why? Think about the relationship between these technologies and your top community values	**Grounding discussion on technology** — What are some examples of technology? **Concept/Community Scenario and sample** — Think about the ways in which Streetwyze amplifies strengths Where do you look for guidance and where do you find out the things you need to know?	**Solidarity economy: An alternative economy** — What comes to mind when you think of alternative economies? What tools come to mind to support these economies? **Storyboarding**	**Recap of all sessions and group share out**

Figure 2: High-Level Overview of 5-week Workshop Sessions

and created space for community participants to identify their top community values. Joanna recommended voting on the top three of ten organizational values instead of starting from a clean slate of values. In fact, prioritizing values within the organization's established values was a process and organizing strategy used when calling in new people. Self-reflecting on those values that are connected to community members' lived experiences is important. It is also a way to grow an organization that aims to build power around aligned values and those values the community as a collective wants

to defend. Thus, we facilitated a Zoom poll so that community participants could vote on their top three values and solicited why these were the top three through the chat and open discussion. We also sought to understand the relationship between technology and these values—i.e., their thoughts on how technology could be used to uphold their community strengths (utopian future) or exploit them (dystopian future). We created and introduced a video excerpt from Intelligent Encounters' "14 Growing Industries of the future,"[4]

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[4]Full video here: https://www.youtube.com/watch?v=cEUJ0EO-ncA

to demonstrate growing technologies (e.g., A.I., Internet of Things, Robotics).

Finally, we introduced the Liberation, Forecasting, and Methods card decks from the "Building Utopias" workbook (see Figure 3a-c). Based on these decks, we assigned all participants and research team members into four groups based on their preferred time for speculation (i.e., 10 or 100 years in the past or future, Figure 3b). Each small group was invited to discuss the community's ways of living in their chosen times and how technologies could be used to support the community's economy (Figure 3d). We offered the Liberation card "Moments When We Thrive" (Figure 3a) and the Method card "Radical Future Ideation" (Figure 3c) to guide the group discussion.

4.3.3 Week 3: Community and Economic Strengths. Similar to the second week, we dedicated the third week to understanding participants' collective strengths and ways to build "Utopias" around these strengths. We sought to understand the relationship between technology and strengths and showed short videos to exemplify how this might take shape. We showed one video from Streetwyze (https://www.streetwyze.com/) and solicited ways Streetwyze amplifies community strengths. Streetwyze is an online platform founded and owned by Black and women entrepreneurs in East Bay, California, to support community-driven transformation. We also probed to understand where community participants look for guidance and how they find out the things they need to know, and how community members support one another and seek support.

During the workshop, participants and team members were randomly assigned into two small groups to envision scenarios for utopian and dystopian community futures, respectively. We created a shared online workbook for all participants to access and complete through Google Slides (see Figure 4). The workbook provided detailed instructions and examples for completing the group activity. As instructed in the online workbook, each group was asked to nominate a facilitator, a notetaker, a timekeeper, and a presenter among themselves (Figure 4b). On the top of each slide of the online workshop, we provided instructions for the whole discussion group and specific tasks for the facilitator, notetaker, and timekeeper. In total, both groups had 20 minutes to discuss and complete the utopian/dystopian scenarios by addressing the questions on *Who?* (i.e., Details of the person or community), *What?* (i.e., What community strength is being exploited and thwarted? What technology is being used?), *When?* (i.e., When might the event take place?), *Where?* (i.e., Might the event occur?); *Why?* (i.e., To achieve which dystopian future?), *How?* (i.e., What technology is being used?) (Figure 4d). After that, the presenters of both groups were invited to present their community scenarios and their thought processes to the larger group.

4.3.4 Week 4: Mapping of Values and Strengths. Week 4 introduced alternative economies, the "Tools" deck, and elicited alternative economies built on the community's strengths and values. During our initial planning sessions, Joanna explained that the tree metaphor had been used in a similar value-mapping activity within the organization. She shared, and all agreed that this would be useful in our recap and discussions since the metaphor was already familiar to community members.

The goal was to storyboard alternative economies and tools to manifest them. In this session, we asked community members what comes to mind when we say alternative economies. We followed our prompt with videos demonstrating care economies, worker-owned co-ops, barter/trade, and alternative currencies, many of which were mentioned in their initial responses.

Like the week three workshop, participants and the research team members were randomly assigned to two small groups to envision and storyboard alternative economic concepts. Following a shared online workshop on Google Slides (see Figure 5), participants were similarly asked to nominate a facilitator, a timekeeper, a notetaker, and a presenter within each small group (Figure 5b). We invited participants to discuss a list of prompts in the online workbook to help them envision alternative economic concepts. These prompts include: *What goods/services are exchanged and produced? What is the currency, and how is it distributed? What is most valued in your economy? Who are the "workers," and how do they make a living? Why? How do people participate?* (Figure 5c). In this process, we offered four selected "Tools" cards in the online workbook to facilitate the imagining process, including "Education", "Data", "Digital Solution", and "Community Spaces" (Figure 5e). After addressing these questions, participants were encouraged to storyboard their envisioned concept by developing the description of eight scenes (Figure 5d). Finally, the presenter of each group was invited to present their group's envisioned concept and storyboard to the large group.

4.3.5 Week 5: Tangible Ways and Next Steps Toward Our "Utopian Futures." The final week provided an opportunity to recap all sessions and for community participants to share ways to work through their "Utopian Futures." This session created space for community participants to share their reflections and brainstorm next steps. The team also showed their appreciation for community participants' and the organizations' time.

4.4 Observations and Field Notes

Researchers and research assistants from the university team took detailed field notes during and after all sessions to document their observations of participants' interactions during the workshop. In addition, these notes included reflective content, such as our impressions, thoughts, and feelings about our approach and how each session went. Finally, we noted any challenges to address, strengths to build upon, and ideas or unanswered questions that remained to be discussed in the following session. These notes were shared among the research team each week. Team members (Tawanna, Alex, and supporting research assistants and Joanna), met weekly to debrief and discuss the notes and reflections from the session.

4.5 Participants

See Table 1 in the Appendix for participant demographics and the number of sessions each participant attended. While 24 unique participants attended at least one session, only 22 participants attended at least one session *and* consented to participate. We removed all data belonging to five participants who did not consent to participate. Seventeen participants attended three or more sessions and were regular attendees, and only 18 provided their demographic
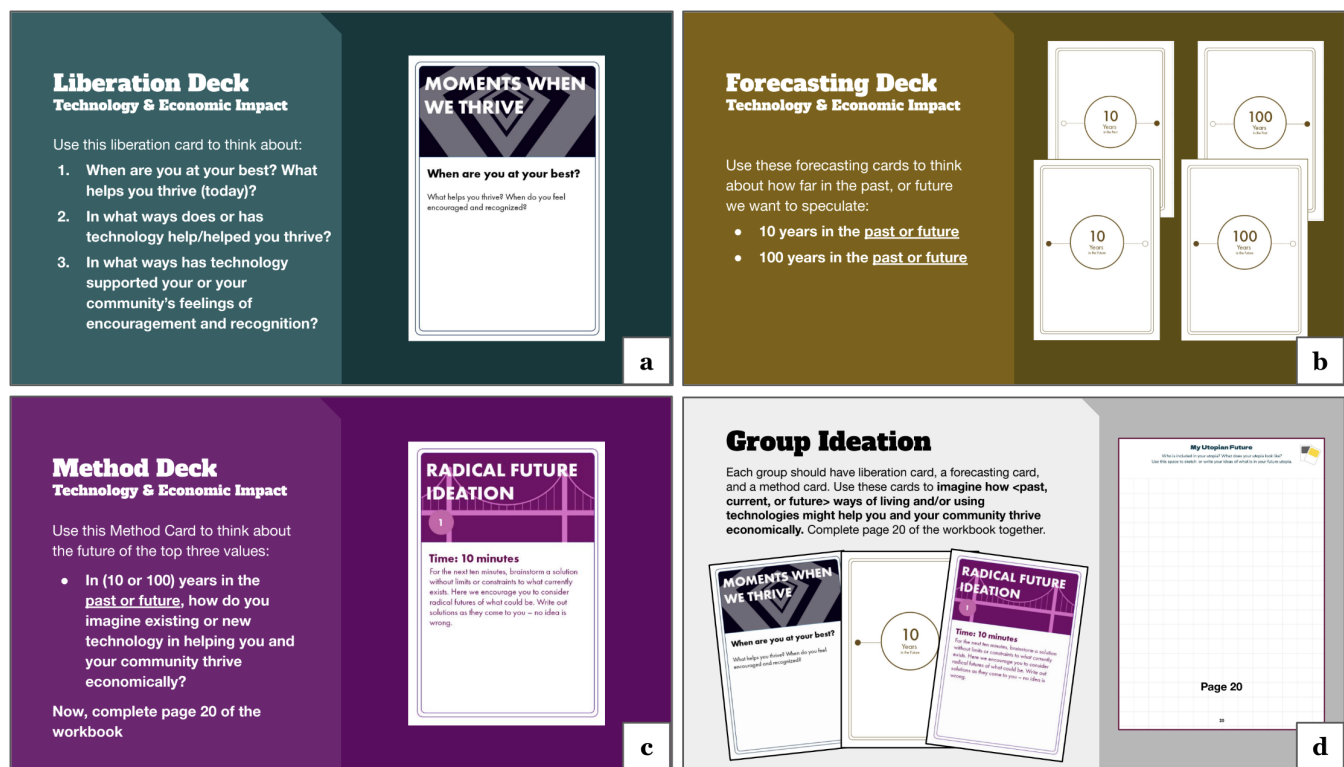
Figure 3: Week 2 workshop: Introduction of "Building Utopias" decks and group activity [13, 14]

information in the survey. Of those who responded, the majority of participants were Black or African American (N=13), women (N=14), and the average age was 45.2 (Std dev=18.9). Most participants (N=9) reported earning less than $30K per year, three reported earning $30K - $49,999, three participants reported earnings of $50K or more per year, and three preferred not to answer. Participant occupations included events coordinators, supervisors, training facilitators, education coordinators and organizers, business owners, counselors, policy analysts, daycare providers, news writer, patient transporter, and tech workers. At least one participant was unemployed, and another retired.

4.6 Data Analysis

Study data consisted of over 10 hours of video and audio recorded workshop sessions, chat transcripts, participant responses to their "Building Utopias" workbook (i.e., we received some physical and digital copies), survey responses, and researcher field notes. Tawanna, Alex, and one undergraduate research assistant led the coding process. We conducted multiple rounds of analysis of our transcribed workshop sessions and interviews on NVivo. First-round coding included provisional coding [74] where the team collectively developed an initial codebook after each week's session to identify salient themes, which all coders agreed upon (e.g., history/ancestry, environmental and infrastructural concerns, values, resources, politics, societal shifts, community). We then conducted open coding to generate new codes in response to our research questions inductively. We conducted a content analysis of participant workbook

responses and descriptive statistics of survey responses. To increase validity, we used all three data sources as a form of triangulation [72] to clarify ambiguous responses during the workshop sessions and to compare findings across methods. We met regularly to discuss our coding and resolve disagreements or discrepancies. We then discussed unique codes among specific sessions (e.g., Week 4: timebanks, communities of care, community capitalism).

While we conducted interviews with a subset of participants after the session, we do not focus on interview results as a part of this article. Given the scope of the study, we focus on imagined futures and not the dystopic discussions of the past.

5 RESULTS

As articulated earlier we integrated a tree metaphor, as a part of our weekly recaps, (see Figure 6) to explain and visually convey the goals and outcomes of each of our core week exercises. The roots of our tree represented community values (Week 2), the trunk of the tree represents the community's strengths and assets (Week 3), and the leaves of the tree represent the alternative economies that are rooted in community values and assets (Week 4). Participants voted on their top three values in week two as multiple strategies of power, anti-racism and anti-capitalism, and leaderful movements.[5]

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[5]These were the top three out of ten core values with which the partner organization is operating. *Multiple strategies of power* focus on the power of organizing as a path to power and freedom. *Anti-racism and anti-capitalism* focuses on living in a world where we all take care of each other, and everyone has what they need to live a full life; the common good's needs are prioritized over a few's selfish desires. *Leaderful*

Figure 4: Week 3 workshop group activity: Envisioning scenarios for utopian and dystopian futures

Figure 5: Week 4 workshop group activity: Storyboarding alternative economic concepts [13, 14]

movements empower people to see themselves as leaders—the strength of leadership lies in the community.

Community strengths included trusted community leaders, educators, neighbors, elders and ancestors, and youth (especially those providing technology support).

In section 5.1, we describe three distinct concepts (i.e., *Community Capitalism*, *Village-Based Childcare*, and *Childcare Collectives*), albeit two salient themes, that emerged from our workshops. When conceptualizing these ideas, community participants envisioned different forms of consumption, production, and exchange. Section 5.2 describes the salient traits or characteristics of alternative economic futures imagined by participants, which reflected community strengths and values.

5.1 Alternative Economic Futures

When asked what comes to mind when we say "alternative economies," participants discussed alternative currencies, bartering, and time-banks. They envisioned a future where one works only on one's passions or those things in which one is most passionate. Imagined futures also included more family time through community ownership of education, learning exchanges, or knowledge-based bartering systems. These alternative economic systems aimed at fostering stronger familial and communal bonds, sustained communal history, and provided youth autonomy over their education.

Ultimately, participants wanted to rebuild communities instead of simply changing their current climate. While they believed that technology could play a beneficial role in the future, especially as it relates to increasing basic needs access, they knew that the road to a beneficial future would have "dystopian roadblocks." The regulation was a concern, especially regarding incorporating advanced technology. Participants asked questions such as, How are the regulations inclusive and respectful to all? Who decides what is ethical? Some participants felt that technology was less of a worry and that production and regulation were the most significant; others stated that technology could outpace morality, and deciding whether something is morally right and inclusive can take longer than the advancement of the technology itself, which lends itself to avoiding regulation. In all cases, community participants prioritized these concerns over profit.

In Week 4, participants began to articulate their visions of alternative economic futures, which became the "leaves of the tree" (see Figure 6). We provide descriptions of the re-imagined version of "Community Capitalism" and the participant's vision of what this might look like today. We then discuss another underlying theme, "Childcare Collectives," which conveys community strengths. While there are no concrete solutions, the underlying characteristics and beliefs could and should inform future design.

5.1.1 Community Capitalism. Drawing from the tree's roots and the community values discussed in the first two workshops, participants prioritized anti-racism and anti-capitalism in reimaging alternative economics. They asserted that the systematic alienation and exploitation of Black and brown communities in today's capitalism should play no part in the utopian economy. For more context, a participant included in the chat during the Week 1 session that "*Imperialism is a set of tools and structures that capitalist elites used to maintain their economic supremacy and dominate the world [via] economic, political and military means.*" Participants stated that capitalism naturally exploits communities and is "*fundamentally tied to slavery.*" They also discussed how modern technologies are designed to facilitate capitalist production and exploitation. And

indisputably, participants saw racism as something that should be a thing of the past 100 years in the future.

Along these lines, the first salient alternative economy concept envisioned by participants, *Community Capitalism*, centers on "becoming free" from systematic exploitation and alienation. This alternative economy maintains commodity production, circulation, and consumption, but commodity exchange and profit production are directed to social and community responsibilities (i.e., ensuring people have access to food and housing, contributing financially back to the community, and paying fair wages). In addition, community members are expected to own particular means of production sufficient to support themselves and ensure the circulation of money and commodities within the community. Participants noted that Community Capitalism "*privileges community rather than [the] market sphere*" and "*supports equality over inequality.*" They imagined how prevalent businesses in their community like Metro PCS[6], which was prevalent in the community, and others, could take part in providing that support. In Community Capitalism, all people are included in varied labor and work based on their situations and abilities (e.g., unpaid household workers and caretakers, sex workers). And participants envision communities no longer needing to rely heavily on capitalist elites and big corporations for basic necessities. Relying on personal and community businesses, community members no longer need to participate in capitalist production, which extracts labor and wealth from their communities.

To convey how participants envisioned Community Capitalism, we draw from the storyboard a participant completed as homework and their description in Week 5 (see Figure 7). The participant stated that they had done theirs "*on a scenario of the reality of today,*" which took the ongoing pandemic at the time of the study into consideration. Because of the COVID-19 pandemic, the participant shared that they did not want to venture out to public spaces and did not have a washer or dryer. However, their upstairs neighbor had one. In the scenario, the participant texts their neighbor and asks for a favor to take care of their laundry. They negotiate on a price and pay their neighbor through Cash App or PayPal (avoiding contact). Their neighbor returns the laundry and sends some of the money she earns for completing the laundry to her husband, who is a barber, and who needs to purchase masks and clippers. With the new investment, the barber begins cutting hair on their front porch, where it's safer than cutting inside. The participant explains,

> *And that $30 that started with [the barber's] wife ended up turning into anywhere from $200 to $500 depending on how many guys in the neighborhood come to get their haircut...And you know what it was in it was really community capitalism because he was able to buy the good clippers, which is capital, okay, equipment to do the haircuts. You know, he was able to invest in the capital that he needed to make the money you want. So that's how I was seeing it more or less like, you know, I don't know how this will sound, but "Community Capitalism" You know, providing for members in the community to get capital and make some money.*

To this participant, the circulation and accumulation of wealth within a system of community capitalism allow each community

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[6]Metro PCS is a budget-friendly mobile carrier offering no-contract and pre-paid plans

Alternative Economies as Leaves
- Decentralized childcare
- Village-based childcare co-op
- Others

Community Strengths as the Trunk
- **Trusted:** Community, community leaders, neighbors, friends, mentors, professors
- **History:** Family members, elders, and ancestors
- **Youth:** Youth for dreaming and for tech support
- **Spirituality:** Church

Community Values as Roots
- Multiple strategies of power
- Anti-racism and anti-capitalism
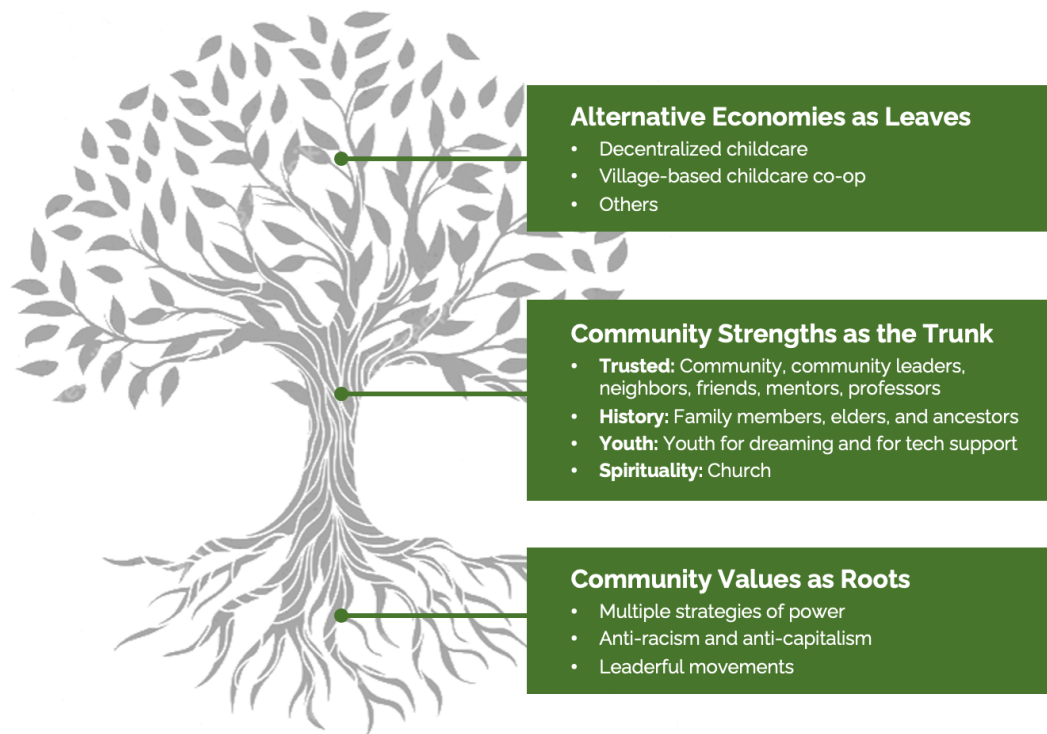- Leaderful movements

Figure 6: Tree metaphor used during the workshop sessions

member to invest and seek necessary resources as means of production. To other participants, a system of Community Capitalism offers the economic means and opportunities necessary for individual and collective self-realization. Instead of working for an hourly wage, participants envisioned community members working towards the investment of their own and their children's dreams:

> *A group of people that are supporting the needs of a household or an individual or what have you in there's a transaction, instead of it going to the big corporations, you know when the folks can [go to] their business [in] their community or somewhere nearby, or who knows, across the country or the world. But I think that it's playing out in a way, you know what I'm saying, not necessarily this small community that we're we're talking about sometimes in our groups, but in another way, in a different type of community where there's still some benefits and some trickle-down effects where somebody else's dream is being invested in, or somebody else's child's dream is being invested.*

Such descriptions represent circular economies that aim to strengthen local communities by keeping money circulating within them. Circular economies help to support local businesses, and the overall community's health and spur economic growth.

5.1.2 Village-Based Childcare and Childcare Collectives. Compared to Community Capitalism's *scenario of reality today,* another two salient alternative economy concepts, *Village-Based Childcare* and *Childcare Collectives,* focused on abolishing and reimagining the

capitalist ways of production, consumption, and exchange. Both childcare concepts stemmed from the storyboards created by discussion groups in our Week 4 session. Recall in Week 4, participants were invited to map their values and strengths to envision an alternative economic future in two small groups. Surprisingly, both groups put children and youth care at the center of their envisioned economic system. While one group named their concept "Childcare Collectives," the other named theirs "Village-Based Childcare." Common across both imagined economies is the importance of uplifting the community through the "circulation of goods" *within.* Compared to Community Capitalism, no alternative currencies were discussed in Village-Based Childcare and Childcare Collectives. The value of all community members' contributions and inclusivity were two key components of these decentralized childcare concepts.

According to participants, creating a better world requires active participation and shared contributions from all community members. At a high level, these two concepts can be seen as investments in future generations. As described in Village-Based Childcare, community members aimed to nurture and care for parents who needed to provide for their children. They wanted to ensure that the "system" accommodated their needs, first and foremost. On the other hand, Childcare Collectives focused on nurturing the child. In economic terms, the community aimed to *invest* in their core values and strengths—families.

The Village-Based Childcare group did not specify a timeframe.[7] However, participants envisioned a "decentralized pod of healthcare"

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[7]This is likely because we did not provide a forecasting card.

Scene 1:
One neighbor who lives in a two story flat needs her laundry done. She does not want to go to the laundry mat because of Covid. She texts her neighbor upstairs who owns a washer and dryer.

Scene 2:
The neighbor agrees and she uses Paypal to send her money and places the clothes in the back hallway. The do not encounter one another.

Scene 3:
The neighbor who agrees to do the wash gives the money to her husband who uses it to by masks and hair clippers.

Scene 4:
The husband comes back and begins giving haircuts on his front porch because it is safer than going inside to the barber shop.

Scene 5:
Envision 3 $10 = $200
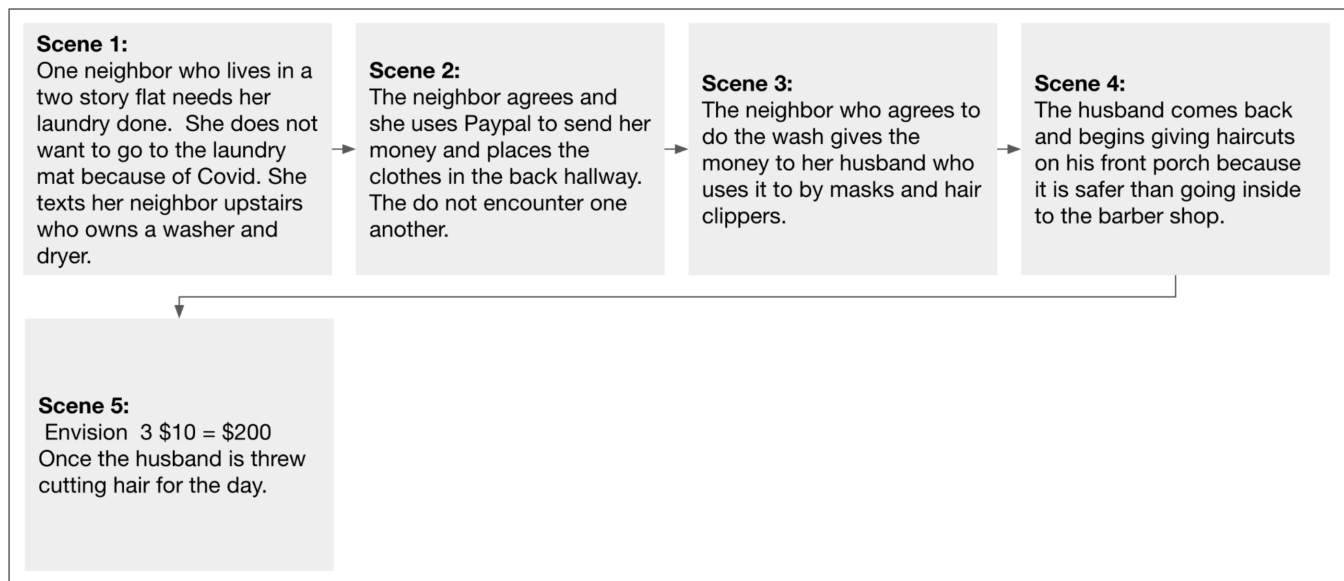Once the husband is threw cutting hair for the day.

Figure 7: Participant-developed storyboard for Community Capitalism

where families focused on raising kids in a village with basic needs provided. Figure 8 outlines the storyboard participants created to illustrate this decentralized and "village-based" childcare system. In the storyboard, first-time parents and the community welcome their new baby. Childcare, housing, and even diapers are freely available. As the presenter from this session described,

> *Housing is free, and the cost of the housing is paid for by either the government or some agency... A community (might) need to adjust to schedules, to support the child, so the cooperative, the community, comes together to provide support, caregiving, and what have you to support families.*

Their imagined future economy would ensure free access to housing and time for community-based childcare. The quote suggests a need for flexibility in time and schedule adjustments. The core value here is supporting the child and also ensuring that the families have what they need to do so. This group also envisioned older kids providing childcare for free and seasoned parents supporting new parents by facilitating diaper banks:

> *Older kids volunteer their babysitting services, seasoned parents provide diaper banks and other items that the baby might need, and housing is provided via housing co-ops.*

Free housing is provided via housing co-ops. Ultimately, many of the basic needs were provided through volunteer work, flexible schedules, and cooperatives. As described in Scene 8 of Figure 8 and the presenter's report out, communal support is available for the parents and newborn. In addition, "Caregiving is valued just as much as 'regular labor':

> *We want it to be recognized that caregiving is a valuable commodity. Caregiving is a valuable skill set [and]*

> *caregiving is a valuable contribution to our Community. And, and the backbone of our economy...*

The quote from the shareout acknowledges caretaking as labor that traditionally falls outside of what is valued in the market but is valued in their alternative economy. According to Gibson-Graham, the most pervasive form of labor worldwide is the unpaid work conducted within the family, household, and the wider community. Highlighting caretaking as a different form of compensation and kinds of labor expands the scope of economic identities external to the narrow range valued by market production and exchange [37]. This recognition supports equality over inequality and is an important first step toward building an alternative economy [63]. The quote also debunks the patriarchal arrangement embedded in the existing capitalist economy and calls attention to caregiving as the "backbone" of their imagined economy. The group emphasizes the value of parents' and caregivers' development, work-life-balance, and life outside of parenting in their share out:

> *...There are resting spaces provided for the parents, with a focus on [the] development of a person and a life outside of parenthood. We have community check-ins with those caregivers to ensure that they're ready to work, so there's a team. We check on those caregivers because caregiving is exhausting work, and then everyone supports the work-life balance for the parents.*

Alternative to today's capitalist system, which often challenges work-life balance (i.e., the more you work, the higher your wages, the less balance you have), the community finds it important to highlight the resting spaces provided for the parents. They also acknowledge the labor required in and exhaustion from caregiving. It is clear that parents' work-life balance is important; however, so is their personal development. Such statements reinforce community

values, such as family, elders, and taking care of the youth, expressed throughout the sessions.

Next, we discuss the Childcare Collectives concept created by another group during the workshop, which seemed to further extend the aforementioned Village-Based Childcare conceptually. While this group did not complete a storyboard during the session, we report results based on multiple team members who shared the responsibility of presenting. In a critique of the current education system, they described how sending children outside of the community to be educated was not a model that took advantage of its community's strengths—i.e., the elders and others within their communities. Collectively, community members would contribute to youth's education, and the group conceptualized what daycare would look like 100 years in the future. Instead of sending youth outside their neighborhoods for care, this group imagined children staying in their neighborhoods to gain wisdom from their families and elders who were willing and excited to share their love and wisdom: "*And a lot of our conversation is on the decentralization of childcare that it is focused on the family, in that the parents of the child are able to construct their day.*"

They proposed alternate forms of education that were child-led and allowed kids to learn their specific interests. While education was important, it was also important for families to have autonomy over it. Others said that what was described was similar to homeschooling, emphasizing community autonomy and space to choose what to study. Group members also emphasized the importance of nutrition, food access, and food preparation for their children: "*But, making sure that a fundamental part of our community and daycare in the future is access to healthy, nutritious food was a component of it.*" Here, community members echoed earlier visions to ensure basic needs are provided.

Community members also envisioned that children would have autonomy over what they ate and could work with adults to cook together as a learning activity and to provide meals. This group valued education and a lifestyle where children and parents had more time to spend together. Specifically, food provision also entailed engaging with nature and the outside world via gardening.

> *And opportunities to engage in their outside world too. So, things like being able to garden with family...or having an opportunity to go to a community garden if that's something that's encouraged, and making childcare just a built-in component of the community.*

In addition to autonomy, what is salient is ensuring the nourishment of the community through access to (local) food. Building on access to healthful foods, group members shared the importance of engaging with the outside world in this way. Indeed, there were individual homework assignments, not discussed in this article, that focused on building such community gardens. Such "built-in" community engagement was also discussed in the final session.

Finally, group members shared the role of technology in their envisioned futures. They discussed the benefits of having Internet access—i.e., *learning languages or creating a global network of relationships*. This echoes the underlying theme of maintaining a connection with others either via language learning to communicate with others within the community or to create a global

network outside of the community. Building on this quote, another participant stated:

> *It was almost like a jobs board idea, which is that if there's a kid who says, hey I'm really interested in learning this language, maybe there's someone in the community...who's interested in teaching it, so a lot of how we looked at childcare relief was developed around this idea of how do you choose throughout the day and give autonomy.*

In this quote, community participants again are looking to leverage the existing strengths of the community to address the community's needs. Whereas typical job boards might direct people to a local business, this job board connects community members, and in this specific case, via language learning. Here, community members see technology as an opportunity to facilitate such connections. Using a jobs board allows people to post interests and for others to provide services and support through teaching. This type of system also supports autonomy by allowing others to respond and build on the envisioned future where people work only on those things in which they are most passionate.

Community members acknowledged how their alternative childcare collectives would be shaped by technological advancement. Yet, they emphasized the contingent benefit of digital technologies like robots as only *supporting* parents in their caregiving roles.

> *It was suggested that one of the ideas is that some people may choose to have like a physical robot that would be available if the caregivers had to leave the children and attended for a period of time...it would give them some relief in that pressure of taking care of the child, or opportunities for other adults to check-in with the children.*

In this quote, people have the autonomy to *choose* to have a physical robot. There is an option and no forced opt-in without community consent. Counter to what could be described as an overreliance on technology for automation in today's capitalistic systems, the use of robots, in this case, should only be temporary and not replace human discretion. It provided "relief" to the parents' key caregiving role and opportunities for others to connect via checking in. Like the Village-Based Childcare concept, parents are provided with some relief, and again, an acknowledgment of the often-invisible and devalued labor required to nurture and provide for children.

5.2 Desired Characteristics and Traits of Alternative Economies

We address our second research question and describe the traits and characteristics of imagined utopian economies. In the first two weeks, several characteristics and traits of utopia and alternative economies emerged from the participants' discussion and reflect community members' envisioned alternative economies. These included love, care, inclusion, and trust. Other attributes that emerged, though not discussed in depth, included freedom, having no fear, and healing. Participant discussions suggested the need for community-based governance and communal agreement.
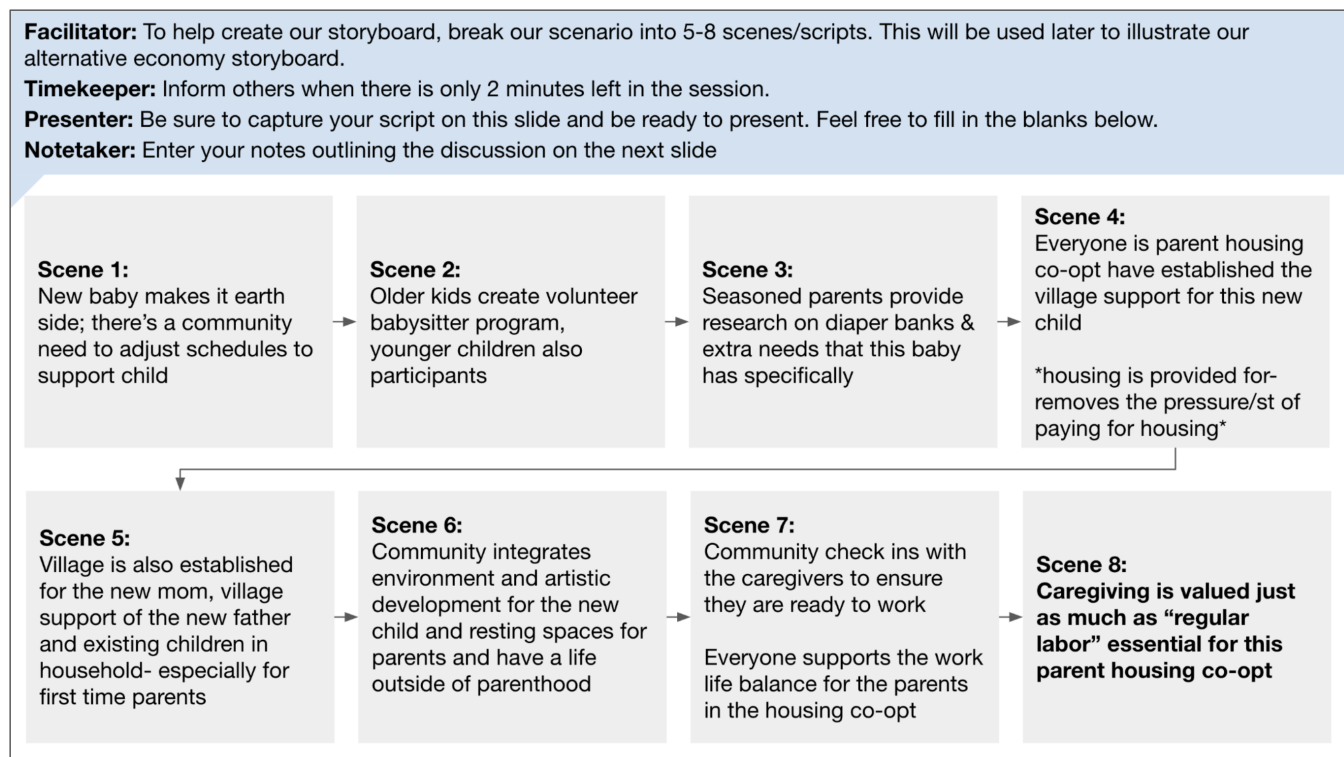
Facilitator: To help create our storyboard, break our scenario into 5-8 scenes/scripts. This will be used later to illustrate our alternative economy storyboard.
Timekeeper: Inform others when there is only 2 minutes left in the session.
Presenter: Be sure to capture your script on this slide and be ready to present. Feel free to fill in the blanks below.
Notetaker: Enter your notes outlining the discussion on the next slide

Scene 1:
New baby makes it earth side; there's a community need to adjust schedules to support child

Scene 2:
Older kids create volunteer babysitter program, younger children also participants

Scene 3:
Seasoned parents provide research on diaper banks & extra needs that this baby has specifically

Scene 4:
Everyone is parent housing co-op have established the village support for this new child

housing is provided for- removes the pressure/st of paying for housing

Scene 5:
Village is also established for the new mom, village support of the new father and existing children in household- especially for first time parents

Scene 6:
Community integrates environment and artistic development for the new child and resting spaces for parents and have a life outside of parenthood

Scene 7:
Community check ins with the caregivers to ensure they are ready to work

Everyone supports the work life balance for the parents in the housing co-opt

Scene 8:
Caregiving is valued just as much as "regular labor" essential for this parent housing co-opt

Figure 8: Participant-developed storyboard for Village-Based Childcare

5.2.1 Love, Care, and Inclusion. One overarching theme from the first week's discussion was "Radical love and tenderness." Radical love was inherently difficult to define. For our partner organization, radical love and tenderness speak to the unequivocal care that community members had for one another and the importance of inclusion—acceptance of everyone. This was echoed in visions of Community Capitalism, which inherently focused on social and community responsibilities such as financially contributing to the community and ensuring the circulation of money and commodities within the community. This was also echoed in visions of Village-Based Childcare and Childcare Collectives, which centered on love and care for the youth. The community organizer, when synthesizing the key theme from Week 1, stated,

> Radical love and tenderness. This is definitely what I've been seeing out of today's session. Love. Love, not as a sentiment, not as an emotion, but **as the full expression of oneself to create the world as it should be** [emphasis added].

Participants probed deeply into the meaning of radical love. One participant shared in the chat that (radical) love was a loaded term and clarified that love was more than a sentiment. They distinguished between the term love as related to romance, kindness, and joy and the practicality of love as seen through showing understanding or affirmations. Participants also saw love and kindness as the foundation for strategies of power in their utopian vision. In other words, participants valued leaders who valued family. From a governance standpoint, participants valued leaders who aimed to

reach a consensus with all groups. While love was one of the overarching themes in Week 1, and arguably throughout all sessions, it was not voted as one of the top three values in the following week. One participant explained in Week 2 that love is at the core of everything—love, in a sense, was a given:

> It [Love] didn't make the top 10 for my number one, and that was radical love and tenderness only because I felt like that was the entrance to all the other solutions...we're all created to do the work and lead with tenderness. All the other things will fall into place.

Participants agreed about the importance of human connection and communication as a part of the full expression of oneself to create the world as it should be. One participant shared how there was a collective responsibility when she was growing up. She also shared how people of African descent are communal people and cautioned the group to connect with "who they are," outside of technology.

> It's our nature to live [as a] community. Now we're leaving living contrary to our nature. And it's, it's not helping, and technology is not going to help either until, until we become back to who we are.

Thus, while participants were open to technology, they set clear technological boundaries in their desired futures, stressing the importance of technology, not overshadowing connection or communication. Taking into account the impact of the pandemic and

an overwhelming need for connection and communication, participants prioritized communal ties over technology involvement. Utopian societies consisted of connected communities and families—both goals of their envisioned alternative economies. Ensuring families and neighbors were taken care of demonstrated love and care. One participant articulated their vision of Utopia as having ways for communities to meet their needs. Participants felt that the "governing society" cared for its citizens in a utopian society by providing them with necessities such as transportation, food, education, and utilities. Aligning with this demonstration of care, participants wanted a clear role in helping society in exchange for not having to worry about providing such support (i.e., transportation, food, education, and utilities).

Another characteristic of utopia that emerged in sessions was inclusion, and inclusion takes into account accessibility. Participants asked in multiple conversations how the elderly, youth, people with disabilities, and people with Post-traumatic stress disorder, were being included. Everyone's opinion matters in an inclusive society, which means that decisions are consensus-based. Ultimately, a utopian society consisted of increased community involvement, which ensures equality if all voices are heard and increases trust.

5.2.2 Trust. Trust was important among participants. In response to a question asked in the session about how to (re)build systems of trust, participants felt that community involvement could increase trust and action. Echoing the prior subsection, consensus-based and inclusive societies ultimately breed trust. Indeed, Childcare Collectives could not exist without community-based trust. The systems of oppression and exploitation in breeding mistrust and fragmenting communities were also raised. Participants knew how exploitation could be disguised as love (e.g., multi-level marketing (MLM's) and other marketing schemes, which leads to mistrust). The lack of litigation for such schemes (MLMs/pyramid schemes) and the exploitation and delegitimizing of certain work over others in society (i.e., sex work) made participants less trusting of governmental involvement. Along these lines, one participant felt that the idea of monitoring systems for the benefit of society could be a good idea in theory. However, her experience and knowledge of how oppressive systems worked made her unsure of the reality of it. Participants expressed that in cases like these (e.g., oppressive monitoring systems/surveillance), communities should be prioritized over technology usage. In other words, numerous communal discussions and agreements should be made at an organic level.

Nevertheless, institutions have historically abused this type of power and lost communities' trust, which led to the question of how trust can be rebuilt. One participant stated: "*When you create something that inadvertently creates negative changes, how can you fix it once the cats are out of the bag?*" She accepts that there is no perfect society—societies will make mistakes. The key here is acknowledging mistakes and change rather than ignoring them. This reflective nature would be necessary to sustain Community Capitalism, Childcare Collectives, and Village-Based Childcare.

6 DISCUSSION

In response to our first research question (RQ1), workshop participants generated three salient alternative economic models: *Community Capitalism*, *Childcare Collectives*, and *Village-Based Childcare*. We identified desired characteristics and traits that are shared among these economic models—love, care, inclusion, and trust (RQ2). These concepts and traits help us to think through ways in which we can collectively start resisting the coercive and exploitative aspects of capitalism through design. In this section, we discuss what our work might mean for the design and development of technology in HCI. We also reflect on our approach, offer questions about technology, and consider how to transform capitalism in an emancipatory direction through design. In addition, we discuss how centering Afrofuturism in Speculative Design approaches could help to disrupt and redesign existing sociotechnical infrastructures by identifying new economic models that support historically marginalized communities.

6.1 Reaching Imagined Alternative Economies

Ultimately, community participants' imagined alternative economy concepts, Community Capitalism, Childcare Collectives, and Village-based Childcare *privilege community autonomy and interdependence over markets* and *access to basic needs for everyone over accumulating wealth to achieve status for a select few*. Community participants described Community Capitalism as an alternative to the existing capitalist arrangement founded on extracting resources from their communities (by alienating and exploiting workers and working-class communities). Community Capitalism, in a way, maintains commodity production, circulation, and consumption aligning with a generative justice framework. However, such commodity exchange and profit production are expected to be directed to social and community responsibilities (i.e., contributing financially to the community and paying fair wages). As discussed earlier, community participants also proposed the concepts Childcare Collectives and Village-based Childcare, both decentralized forms of childcare, which are inherently aligned with an investment in future generations. These decentralized childcare concepts relied on reimagined ways of production, consumption, and exchange compared to the current model of capitalism in the U.S.

Building on prior scholars' promotion of Black joy [11, 50, 69], What does it mean to optimize for love, care, and feelings of nurture and inclusivity within technology and design? What steps might be taken to reach an envisioned Community Capitalism, Village-Based Childcare, or Childcare Collectives? The following subsections describe technology's usage and inherent role as envisioned in the workshop; designing while centering love, developing people and families; and finally, guidelines for community-involved governance.

6.1.1 Understanding Technology's Role. Community members' priority was ensuring the basic needs of everyone, especially those who were most vulnerable. Thus, as a starting point, it is important to consider how community participants framed how technology should be used. Despite community participants' skepticism about technology (e.g., no regulation, technology outpacing morality), there was an openness to its role in their imagined futures given the

ability to set clear technological boundaries, ensuring that technology did not overshadow connection or communication. Technology was not seen as a full replacement for responsibilities like caregiving but was seen more as a "crutch" or support. Robots, for instance, only supported parents in their caregiving roles. Technology was not used or even seen as a tool to replace parenting. The complex debates around using technology to support workers center on improved job satisfaction, performance, capabilities, and skills [34]. On the other hand, technology has created divides between those with technology access and those without [34] and has replaced (is replacing) workers. Drawing on the comparison here, community members' sentiments that technology would not serve as a replacement but as a source of support were clear. Their north star was always in service of building, not profiting from, their communities by supporting families and investing in their youth—i.e., the future.

To maintain communal knowledge and connection, discussions included opportunities for technologies to foster local wisdom and improve upon existing education systems by creating a model of community-based education. Community-based education is defined as "learning activities that use the community extensively as a learning environment, in which not only students but also teachers, members of the community, and representatives of other sectors are actively engaged throughout the educational experiences" [71, p. 8]. Such models have been used to teach and provide healthcare-related skills in a culturally appropriate way [70], provide community-based mentorship [26], and more recently build digital capacity within communities [55]. While timebanking systems and technologies to facilitate peer-to-peer knowledge exchange exist, community participants described knowledge-based bartering systems to support a form of passion exchange (i.e., enabling community members to work on their passions). Despite similarities in the goals of timebanks and what our participants shared, the two groups differ demographically (e.g., typically, timebank members have been white women, older, living alone, and unemployed [19]). Whether timebank members view their activities as passion exchanges and the role of timebanks as a technological intervention in supporting community-based education is worth further investigation.

Community participants in this work envisioned futures that would counter the imbalance in the types of smartphone-based applications, which align with the U.S.-based capitalist model as highlighted by Ekbia and Nardi.[8] However, community participants not only focused on who might be left behind economically, as suggested in [31], but on who might be left behind in terms of their well-being (i.e., by considering factors like love, care, and feelings of nurture and inclusivity). Community participants from our session envisioned Community Capitalism and its heart, a family/love-conscious-based society. We highlight the vital role of love in the outcomes of this work and consider technology's role in promoting the love described via our community's lens. And, building on love, our results show that community and family connections were not

only valued among our participants, but they were key community strengths. While groups envisioned care work as a "currency" or something that could be exchanged/bartered, the ultimate goal was strengthening community connections. Our results describe concrete instances of what Eglash et al. describe as systems of generative justice, which generate, rather than extract, value [29]. Our findings focus on minimizing alienated labor—participants described economies in which they strengthened their communities and families, and the sustainability of their communities was key. They considered the elderly or community ancestors as sources of wisdom for teaching within village-based or collective childcare systems as a form of community empowerment, which are inherently generative. Indeed, there was consensus and intentionality placed on raising youth to create stability within the community and, ultimately, happiness.

What is the role of technology in fostering or highlighting such efforts? One approach includes building upon concepts like Barter [52], the system supporting a circular economy by recording the community's monetary flow to help generate and grow local wealth. Perhaps a system could record and help to grow what communities wish to (re)generate for themselves, whether it be communal wisdom, love, or in the case of Community Capitalism, internal wealth. Such imagined futures disrupt existing sociotechnical infrastructures and move us to consider how we might move to redesign them. Future research should explore additional ways to maximize and self-sustain such value within communities and extend generative justice frameworks.

6.1.2 Community-Involved Governance. Community participants acknowledged institutional harms and abuse inflicted upon their communities, which led to questions about rebuilding trust. As one participant asked, "*When you create something that inadvertently creates negative changes, how can you fix it once the cats are out of the bag?*" Accepting that there are no perfect societies that exist at the moment and that societies will make mistakes, it is important to acknowledge rather than ignore mistakes that were made. Community participants raised critical questions that could potentially mitigate such mistakes from occurring depending on who asked the questions and at what point in the conception or design process the questions were raised. Critical questions and reflexivity about the regulation of "advanced technology" included *How are the regulations inclusive and respectful to all? Who is deciding what is ethical?* Drawing from section 6.1.1, is technology being used as a support tool or a replacement tool? In what ways does this technology serve to benefit community-based education? How is technology fostering or uplifting love within the community? How is it supporting families?

Community participants felt less worried about the concept of technologies and the inclusion of technology artifacts in their envisioned futures perhaps due to technology's perceived promises. Yet, technology has advanced without their voices and been deployed to communities without their consent, leading to community participants expressing concerns during the workshops. They acknowledged that determining what was morally right, ethical, or even inclusive could take some time—sometimes longer than the tech advancement itself. However, our capitalistic society often prioritizes tech advancement and profit over what is morally right

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[8]Situating the outcomes of our work into past HCI scholarship, our findings echo sentiments on "class-conscious design" by Ekbia and Nardi: *"The majority [of smartphone applications] are built to help people find good restaurants but not good jobs, connect with old high school classmates but not with the disenfranchised members of their community, organize flash mobs but not labor and trade unions, search for cute pet videos but not endangered species in their area, and so forth.* [31, p. 48].

or inclusive, and sometimes the conversations to discuss such questions. As called out by Lu et al. [60], this lack of governance could reproduce and materialize the harm to minoritized communities. The authors assert that accountability and governance should not be reactionary upon infrastructural breakdown but more proactive in anticipating them. We similarly argue that building such anticipatory governance requires design researchers and policymakers to anticipate the preferable relations among communities and technologies and, more importantly, involve community members in demystifying technology artifacts and their black-boxed infrastructures [36, 60]. Achieving envisioned goals, such as anticipatory governance with varying levels of community and stakeholder involvement, including youth at every decision point, requires a system of community governance over technology development. However, such governance does not exist in the design, implementation, and deployment of technologies, raising several questions about how technologies should be regulated.

Broader structures that reproduce interlocking systems of oppression along the lines of race, gender, class, and more are upheld by specific regulations and policies. Thus, moving toward a regulatory framework that prioritizes community members' expressed needs could work to disrupt how sociotechnical infrastructures are created. HCI research has helped shape public policy in areas such as accessibility, interface use while driving cars, electronic health records, data privacy, U.S. election interfaces, and more [1, 54, 86]. Within social media platforms alone, HCI scholars have also sought to minimize the proliferation of harmful content (e.g., [69, 75]). Aligning with prior calls for design to delegate spaces where differing perspectives in communities can be worked out positively [10, 21] and empower citizen-led policymaking processes [65], we recommend future efforts in place-based policymaking, co-designing policies with community members, and brainstorming ways to implement them.

6.2 A Push for Centering Afrofuturism in Speculative Design Approaches to Foster Futures Literacy

We propose that Afrofuturist speculative design, as used in our study contributes to *design after capitalism* [83]. Modern economics' primary focus is market exchanges and economic theory describes how people *should* act to make efficient economic decisions. Alternatively, economic anthropology, which some suggest is in search of capitalist alternatives, analyzes what people *actually do* (and why they do it) through ethnographic approaches—economic anthropology does not assume that people can act on their desires. We center Afrofuturism in speculative design to extend economic anthropology's search. Wizinsky argues that "Afrofuturism offers a framework for envisioning models of tech innovation and invention outside the hegemonic view of a singular, expert-driven narrative of tech-driven predominantly by a European worldview of modernity" [83, p.190]. We adopted Afrofuturism within the context of speculative design as a way for community members to be empowered to create their own culturally specific models of technological innovation and as an act toward enabling postcapitalist design with the anti-racist and decolonial sensibilities [83]. Our design approach and findings align with design justice principles

(e.g., sustainability, participation, responsibility, diversity) [20]. One of the most beneficial aspects of our work was creating a space for people to discuss the future.

As Mangnus et al. argues, transforming capitalism in an emancipatory direction necessitates futures literacy [64]. UNESCO defines "Futures Literacy" as a skill, a capacity that "allows people to better understand the role of the future in what they see and do" [80]. Literacy in futures enhances our ability to prepare, recover and invent as changes occur and empowers the imagination. Aspects of futures literacy depend on being reflexive about future engagements, knowledge of the underlying power structures, and how we respond to different approaches to the future [64]. We propose that Afrofuturist speculative design, as used in our study, could also foster futures literacy.

Harrington and Dillahunt combined Afrofuturism and speculative design in their approach. The authors aimed to support Chicago youth envisioning outside the predominant hegemonic view of design. However, the youth's envisioned futures were filled with today's dystopian realities—the youth could not imagine a life without poverty and racism. In building upon this work, we believe several factors might have influenced our results: (1) the timing (our event took place during a time of planning versus amid the COVID-19 pandemic), (2) the population (the Chicago youths were summer design program participants versus members of an organization that aimed to organize, mobilize, and develop political power among them), and (3) the political standing of the partnering organization and Joanna's engagement throughout the planning, organizing, and planning of each week's session. The partnering organization in our work incorporated anti-racism and anti-capitalism into their values, which our participants voted as one of their top three values. Thus, simply having a space for the group to imagine, locate, and negotiate shared imaginaries and goals under the guidance of anti-racist and anti-capitalist principles and finding alignment and understanding within a shared space was powerful. As advocated in prior work, such shared spaces are also meaningful in facilitating encounters among community members, building new social relations, and fostering social infrastructures for the desired futures [26, 59, 60]. Discussing their values and community strengths and their role was key before considering technology and opportunities for technology to support their values and strengths. While Afrofuturism and speculative design were crucial to the outcomes of this work and in revealing imagined futures, the nature of the organization and its role must also be considered in future endeavors using similar approaches. Creating spaces to think about how to bring envisioned utopian futures was expressed as the next step forward. As a political organization, this session also allowed community organizers to align community members' values with politicians running for office and prepare for the upcoming election.

Our approach and partnership address what Ekbia and Nardi identify as "The Elephant in the HCI Room," and call to more deeply consider the relationship between computing and how it shapes the power of the economy [31]. Given the differences in outcomes of the two works, an open question for future research is what role or impact the partnering organization has in such a collaboration. Ultimately, we believe that centering Afrofuturism in speculative design, alongside adopting community-based participatory

approaches with community partners, was a way to foster futures literacy.

7 REFLECTIONS AND CONCLUDING REMARKS

Historically, capitalism has played a significant role in perpetuating racism, inequality, and environmental damage, among other violence and harm. Leveraging techniques from HCI and design, our work aims to disrupt and offer insights for redesigning existing sociotechnical infrastructures that align with capitalistic goals. We elicited new visions for utopian alternative economies in a five-week remote workshop series with Black and Brown working-class people fighting for economic justice. We contribute concrete utopian characteristics and traits from community participants' imagined economic futures: Love, care, inclusion, trust, and investment in future generations and how these traits were salient in three imagined economic futures: *Community Capitalism*, *Childcare Collectives*, and *Village-Based Childcare*. We propose Afrofuturist speculative design as an approach to foster futures literacy, contribute to *design after capitalism* [83], and as a way to deliver concrete implications for the advancement of HCI design and technology development.

In reflecting on our findings, we found skepticism among participants to consider technology's role in imagining alternative economic futures, in large part considering existing technology's close association with promoting capitalistic goals, ideals, associated harms [9]. In addition, community participants recognized the larger forces and broader structures at play described in the introduction, and the challenges overcoming them. While some of the alternatives were focused on "the now" or micro (i.e., neighborhood exchange), and arguably built on capitalist ideas (i.e., Community Capitalism), others required more macro-level efforts, perhaps outside of the realm of what technology is capable of [6].

More specifically, if we position community participants' alternative economic models with the existing capitalist system, each model occupies distinct positionalities, illustrating different modes of resistance. Particularly, Community Capitalism takes a "from-within" position that relies on the existing capitalist ways of production, consumption, and exchange; and Village-Based Childcare and Childcare Collectives take a relatively radical standing in abolishing the existing capitalist system while prioritizing community ownership. One might argue, compared to Childcare Collectives and Village-Based Childcare, Community Capitalism is complicit in not openly challenging and transforming the exploitative systems while potentially reinforcing their harms and power structures. HCI and digital study scholars have reminded us that noticing cracks within the existing neoliberal capitalism for erosion is as meaningful as locating revolutionary alternatives in opening up opportunities for solidarity and justice [32, 56, 57]. Thus, despite differences in positionalities and political standings, these concepts all serve as heuristics for critiquing the current systems from the viewpoints of Black and Brown working-class Detroiters and locating opportunities for further inventions. Acknowledging the promises and limitations of different modes of alternatives and resistance creates opportunities for the present. This process has been particularly beneficial for the practice of community organizing—it has helped

to identify areas that require greater community engagement, political education, and reflection to build collective power in the future.

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8 APPENDICES

A COMMUNITY PARTICIPANTS

The number and ID of community participants who attended each session and returned notebooks are included below in Table 1.

PID	Session 1 (Introduction)	Session 2 (Values)	Session 3 (Strengths)	Session 4 (Alternative Economies)	Session 5 (Wrap-up/Next Steps)	Total Sessions Attended	Submitted Workbook?
P1		Yes	Yes	Yes	Yes	4	
P2	Yes	Yes	Yes	Yes	Yes	5	
P4	Yes	Yes	Yes	Yes	Yes	5	Yes
P5	Yes	Yes	Yes		Yes	4	
P6	Yes	Yes		Yes	Yes	4	Yes
P7	Yes	Yes	Yes	Yes	Yes	5	
P9	Yes	Yes	Yes	Yes	Yes	5	
P10	Yes	Yes	Yes	Yes		4	
P11	Yes	Yes	Yes	Yes	Yes	5	Yes
P12		Yes	Yes	Yes	Yes	4	
P13		Yes	Yes	Yes	Yes	4	
P15	Yes	Yes	Yes		Yes	4	
P16	Yes	Yes	Yes	Yes	Yes	5	Yes
P17	Yes					1	
P18	Yes		Yes	Yes		3	
P19	Yes		Yes	Yes		3	Yes
P20	Yes	Yes		Yes	Yes	4	Yes
P21	Yes		Yes	Yes	Yes	4	
P22					Yes	1	
P23	Yes					1	
P24	Yes					1	
P3		Yes				1	
P8	Yes	Yes				2	
P14	Yes	Yes				2	
Total	19	17	15	15	15		6

Table 1: Session attendees. Note that participants who are grayed out (P3, P8, P14, P23, and P24) did not complete consent forms and their data was removed from the session