Navigating the Toolkit

The purpose of this toolkit is to provide guidance for youth-facing programs interested in using speculative worldbuilding, a creative methodology drawing on speculative design, Positive Youth Development (PYD) theory, and cooperative play to explore the lived experiences of young people and capture the complex social structures shaping their experiences.

Here we present the conceptual model of our speculative worldbuilding curriculum, using our series of eight workshops as a case study. In spring of 2022, we held eight, 90-minute virtual sessions with members of Ci3’s Youth Advisory Council. Each cohort of the Youth Advisory Council is made up of 10-12 high school students between the ages of 14 to 18 years and contributes to year-round research and design projects at the University of Chicago. Two of our workshop participants, Myleena Webb and Akira Malik, helped us develop this toolkit.

While a speculative worldbuilding curriculum can be multi-faceted, we found it had specific significance as a tool for exploring themes of oppression and resistance and their influence on a young person’s mental health, community, and well-being. By rooting the speculative worldbuilding curriculum in anti-colonial and anti-racist work, our programming could be adapted in a wide range of audiences. Importantly, in engaging with speculative worldbuilding, we urge facilitators to integrate themes of justice, love, and joy into each respective workshop.

Our toolkit will:

- Describe speculative worldbuilding
- Walk through our curriculum and conceptual model
- Provide insight from youth participants
- Highlight resources, tips, and further reading
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Letter from Youth Participants

Dear Reader,

Our names are Akira and Myleena, and we participated in the speculative design workshops showcased in this toolkit as part of our service on the 2021-2022 Ci3 Youth Advisory Council (YAC). Myleena is a 2019-2020 YAC alumnus and peer-mentor for the 2021-2022 cohort and Akira is a YAC alumnus and a Ci3 Speculative Design Fellow (2022).

Myleena is from Chicago and is inspired by people who are true to themselves. She is an aspiring writer/psychologist/do what she wants and is interested in storytelling around equity building. Youth co-led opportunities are important to her because they put youth in the driver’s seat for issues that concern them - a position that isn't usually granted. These opportunities empower the youth to have a voice in regards to what happens to them and the world around them: their futures.

Also from Chicago, Akira, finds joy in her dogs. She is inspired by people who are hopeful in the face of long odds.

We not only participated in the workshops and created our own speculative design artifacts, but we have helped to write the toolkit. It is important to us, and to Ci3, that young people’s voices are integrated into all aspects of curriculum and programming created for young people – in this way nothing is created for us without our thoughts and opinions honored and respected. We hope that you continue this process of including young people's voices as instrumental aspects of your own speculative design workshops.

We are excited that other young people will have the opportunity to use speculative design for future building focused on hope, love, and joy. When navigating this toolkit, we hope that you will walk away with novel insights about effectively engaging with young people. This is important because effective youth engagement allows for magical future building.

Sincerely,

Myleena Webb and Akira Malik
What do we mean by speculative design and speculative worldbuilding?

Generally, design describes the use of creative techniques to solve concrete problems, frequently for customers or users. However, design can also be speculative – envisioning and manipulating the future as a means of exploring the present and potential pathways to the envisioned future. Speculative design, in the words of designers Anthony Dunne and Fiona Raby, explores “the idea of possible futures and using them as tools to better understand the present and to discuss the kind of future people want, and of course, ones people don’t want” (Dunne & Raby, 2014). In other words, speculative design “uses design techniques to imagine alternative social and political futures.” As Patrick Jagoda acknowledges, this approach has historically often “privileged the technological imagination over structural inequality and racial injustice.” (Jagoda, 2023) Yet increasingly, artists and designers push the field of speculative design to engage with ideas taken from critical race theory, gender and sexuality studies, and activist practice.

Speculative design suggests that imagined futures can be just as influential as concrete presents and it allows the practitioners to speculate about a future which may be impossible. (Candy 2010, Jagoda 2023) Imagining an impossible future may help design a system that does not reproduce systemic oppressions. (Costanza-Chock, 2020) In doing this, the practitioner begins to build a new world founded upon hope, justice, and love. This process of using imagination of the future to re-shape the present, is speculative worldbuilding.

While often speculative design is focused on technological imagination, speculative worldbuilding, influenced by queer theory and critical race theory, pushes speculative design thinking to re-imagine structural inequities and injustices (Jagoda, 2023). Through encouraging people to claim ownership of the future, by inventing the very fabric of the future, speculative design can and is a tool for radically re-shaping the present.

Speculative worldbuilding, rooted in radical hope, can be experienced in contemporary and mainstream works such as: The Comet (W.E.B Du Bois), Riot Baby (Tochi Onyebuchi), The Memory Librarian (Janelle Monae), The Black Panther (Joe Robert Cole), and many more.

With our workshops, we practiced speculative design and speculative worldbuilding to explore the lived experiences of young people and capture the complex social structures shaping their experiences.

References

Why engage with speculative worldbuilding?

*Builds empathy*

Speculative worldbuilding can guide self-reflection and self-discovery among participants while also creatively inviting non-participants to better empathize with the creators of speculative worldbuilding objects. By creating objects focused on joyful and justice-based futures, participants ask observers to explore aspects of society that perpetuate harm, sadness, and injustice.

*Safer space*

While speculative worldbuilding can be intensely personal and depends on openness among the workshop participants, the approach also creates a safer space where participants can engage with and articulate harms caused by injustice without having to reveal personal stories.

*Challenge imagination*

By creating tangible objects, participants challenge all observers to begin to imagine a world where these objects would be possible or, conversely, a world where these objects would not be needed. This act of imagination is vital as it reminds viewers of their ability to imagine and the power of imagination, and it critically engages the viewer to think through concrete actions to achieve this imagined future.

*Leans into joy*

As a participant, speculative worldbuilding can inspire us to visualize a hopeful and joyful future. An observer of speculative worldbuilding artifacts, we can be reminded that imagining a better future is a powerful act that can encourage us to question the injustices of the present.

*Elevates youth voices*

The world of the present is not one that lends itself to listening to youth voices. In turning to speculative worldbuilding we release ourselves from the constraints of a “realistic” future, making space for young people’s vision to emerge.
Five key ingredients of speculative worldbuilding

When creating a speculative worldbuilding workshop, we found that holding up justice, liberation, joy, love, and hope within each workshop was essential in allowing participants to begin to imagine a utopic rather than dystopic future. This can be challenging as dystopic futures are often much more accessible to imagine than utopic; utopias require solutions to system problems rather than dystopias which only need these problems to reach their natural end.

We found these five concepts are valuable to revisit and integrate throughout the workshops to assist participants in this challenging objective. Asking one of the below questions at the start of each workshop is an effective method to facilitate this:
### Overview of Workshops

| Workshop 1: Lineage, Podmapping the Past | Introduced participants to the idea of speculative design, the end capstone project, and systems level thinking. Played Lineage, a game to teach people about reproductive justice and community organization.  
**Activities:** Students begin with playing Lineage, a Ci3 game to teach people about reproductive justice and community organization.  
**Key Frameworks:** reproductive justice, cooperative play, systems thinking |
| --- | --- |
| Workshop 2: Storytelling | Built community and introduced world building through story circles.  
**Activities:** Participate in story circles, a storytelling methodology in which participants share stories using the same story prompt, to gain an understanding of how individual experiences may intersect with systems level barriers that affect agency and bodily autonomy.  
**Key Frameworks:** storytelling, improvisation, cypher |
| Workshop 3: Podmapping | Introduced students to the socio-ecological model and pod mapping.  
**Activities:** Develop an understanding of present family networks, i.e. their pod, using an interactive activity in which each participant creates a map of their own pod and begins to speculate about possible kin structures in the future.  
**Key Frameworks:** pod mapping, socio-ecological model, systems thinking |
| Workshop 4: Speculative Design | Taught key cornerstones of speculative design.  
**Activities:** A deep dive into speculative design techniques for thinking about the future, conducted improvisational thought experiments.  
**Key Frameworks:** speculative design, systems thinking, Afro-futurism |
| Workshop 5: Infrastructural Worldbuilding | Students were encouraged to share what makes them joyful and reconceptualize a world based upon that joy.  
**Activities:** Reflected on the systems that are needed to support agency and bodily autonomy and began to construct a speculative world in which these structures and systems exist.  
**Key Frameworks:** speculative design, cypher, cooperative play, defamiliarization |
| Workshop 6: Queer Theory | Taught a brief lesson on Queer Theory (i.e., queer doesn’t just mean gay) to help students problematize normativity.  
**Activities:** Began to create digital lifeworld artifacts and accompanying narratives that inhabit the speculative world developed in previous sessions.  
**Key Frameworks:** queer theory, cypher, cooperative worldbuilding |
| --- | --- |
| Workshop 7: Working Session | Provided a space for student to build out their capstone, discuss themes with their peers, share-out, and reflect.  
**Activities:** Iterated and built on lifeworld artifacts and accompanying narratives through meaningful feedback.  
**Key Frameworks:** speculative design, cooperative worldbuilding, cypher |
| Workshop 8: Working Session | Provided a space for student to build out their capstone, discuss themes with their peers, share-out, and reflect.  
**Activities:** Iterated and built on lifeworld artifacts and accompanying narratives through meaningful feedback.  
**Key Frameworks:** cooperative worldbuilding, cypher, play |
Workshop 1: Lineage, Podmapping the Past

At a Glance: Workshop 1 Steps

Step 1: Introduced the project
We let participants know they would complete a capstone project and introduced concepts of speculative design, speculative world building, and systems thinking.

Step 2: Define Reproductive Justice
Give participants a moment to think about what reproductive justice means to them, then present the official definition.

Step 3: Lineage
Play a game with the participants, in our case we played a youth co-designed game focused on reproductive justice.

Step 4: Debrief
Take some time to debrief and discuss the core components of reproductive justice.

Step 5: Justice mediations
Incorporate the justice meditations to help participants to remember to root the next sessions in justice building.

Step 6: Share Outs
Share out thoughts and reflections on justice meditations.
Workshop 1: Playing Lineage, and pod mapping the past

The first workshop introduced participants to the idea of speculative design, the end capstone project, and systems level thinking. To help start participants into thinking about systems level thinking and an optimistic and just future, we began the workshop series with a fun and interactive introductory that involved using play to explore the past and contextualize contemporary justice movements.

In our workshop series we introduced participants to the youth co-designed game Lineage. Lineage is a game rooted in the history of reproductive justice and teaches participants about the history of the reproductive justice movement in the United States. Participants were asked to play the game together to learn about the history of reproductive justice, but also to explore and conceptualize how they are interconnected to past, current, and future justice movements. Through playing Lineage, participants are introduced to key figures such as Kimberlee Crenshaw, Marsha P. Johnson, Loretta Ross, James W. Collins Jr., Michelle Alexander, and many more. In learning about these influential figures participants can begin to conceptualize how a movement is created.

While at first the connection to speculative worldbuilding and this game may not have been explicitly clear to participants, as participants moved through the workshop series they were able to reference back to justice movements. We reminded participants that it’s okay not to see the connection immediately and made sure to bring up the themes of Lineage later on in the workshop series.

At the conclusion of the game, participants were asked to consider their own personal connections to the reproductive justice movements with the following question: “How does this history show up in your own life?” In this way participants begin to think about how they would contribute to a justice-based future.

**JUSTICE MEDITATIONS**

1. WE DESERVE TO BE RAISED BY PEOPLE WHO HAVE THE TOOLS AND SUPPORT THEY NEED TO LOVE US FULLY AND WELL.
2. WE DESERVE TO BE RAISED BY A GENERATION FREE FROM INHERITED TRAUMA.
3. WE DESERVE TO GROW UP FREE FROM THE VIOLENCE OF INSTITUTIONAL MARGINALIZATION.
4. WE DESERVE TO CREATE OUR OWN FUTURES.

To end the first workshop session, the facilitators introduced and invited participants to join them in justice mediations. This helped to ground participants in the underlying concept that a justice-based world is possible, and to internalize the idea that...
they deserve to be the architects of it.

**Tips & tricks**

We found that the speculative design and worldbuilding process can be a lot to wrap one's mind around. To help create the right environment for speculative worldbuilding it was imperative to have an engaging first activity that builds connection between participants, is interactive, and introduces concepts of collaborative play. It's okay if the first activity doesn't directly relate to the final product as long as it engages participants and provides any level of big-picture context for the overall project.

**Participant Reflections**

> I really enjoyed this session. The game, which centered around the topics of reproductive justice and of managing community organizations, was fascinating and the interactive game structure made the meeting engaging. I also liked how this experience helped us to connect the ideas of present change and the future.

-- Akira
Workshop 2: Storytelling

At a Glance: Workshop 2 Steps

Step 1: Review
Re-center the participants in the general objective of the workshops.

Step 2: Cypher History
Present the participants with an overview and history of the cypher.

Step 3: Set Stage
Explain how the story circle and world building can be interconnected.

Step 4: Tell Stories
Begin the story circle.

Step 5: Reflect
Give participants time to reflect on the experience.
Workshop 2: Storytelling

The goal of Workshop 2 was to introduce participants to the idea of storytelling as a method for resistance, community building, and justice. For this workshop session we broke into two different small group sessions, with an aim for about 4-6 group members per session. We found the smaller group helps to maintain a more intimate atmosphere during this time.

To start the workshop session, we reminded and invited participants to join in on the justice meditations introduced in workshop 1. These meditations help to remind the participants that they are deserving of a just and equitable future, and that they all have the agency to achieve this.

After the justice meditations were complete, facilitators gave a brief historical overview of the cypher. The cypher originates from the ring shout, a sacred West African improvisation-based circle dance that survived the Middle Passage and took root among enslaved populations in the US as a mode of expression for survival, connection, and resistance. From there the cypher has morphed and changed; however, its core meaning of a continuous moment to share stories has remained the same. Before embarking on this workshop we ensured all facilitators were familiar with key literature on the history of the cypher, and gave a brief history for workshop participants. We’ve provided four citations (below) that provide background on the history, methodology, and cultural importance of the cypher and storytelling.

Further reading

Workshop 2: Storytelling

Before embarking on the story circle we gave a brief overview of worldbuilding. In this way, participants began to think about how to build a world around their story. This was useful in later sessions when participants were tasked with imagining an entirely new world built upon justice, love, and joy. Secondly, we established some community rules when starting the story circle to make sure that everyone felt heard. Since we were conducting these sessions virtually, this was one session we made sure to ask participants to join with their camera on.

Once community norm setting was complete we began the story circle. We asked participants to share a story of a time that they felt they were unjustly treated. The story circle was referenced extensively in the following workshops, so we wanted to choose a prompt that was connected to our overall speculative design and worldbuilding objectives.

As in all of our youth engagement work, facilitators never ask participants to engage in an activity they themselves are not going to participate in. Before this workshop our facilitators met and thought of their own stories to get the story circle started. We found it to be helpful to have a facilitator begin the story circle as it reduced shyness participants may have with sharing aspects of their personal life. While some silence is expected, a successful story circle should see the organic affirmation and sharing of individual stories while simultaneously demonstrating a collective shared experience. Facilitators also made sure to leave time for a brief reflection on the process and stories themselves.

Tips & tricks

1. We asked facilitators to consider, "am I telling this story for me or for the circle?" As a facilitator the goal is to make the circle successful – the story a facilitator shares should be authentic, but not focused on having your own experience validated.

2. Facilitators were asked to choose to share a story that is "cold" for the storyteller - meaning that the person is not still going through the story and can be emotionally detached while still being authentic.
**Participant Reflections**

"Storytelling helped me decide what values I wanted to highlight. I told a story about my experience in an organized religion where I felt like I didn’t have a voice. The experience of telling this story would help me a lot later with remembering what I wanted to focus on—the topic of children’s intellectual freedom. I personally also appreciated how our storytelling experience was first framed by a series of justice meditations... because such phrases allowed us to clearly contrast our experiences with a vision of how the world should be.”

-- Akira

**JUSTICE MEDITATIONS REVISITED**

1. WE DESERVE TO BE RAISED BY PEOPLE WHO HAVE THE TOOLS AND SUPPORT THEY NEED TO LOVE US FULLY AND WELL.
2. WE DESERVE TO BE RAISED BY A GENDERATION FREE FROM INHERITED TRAUMA.
3. WE DESERVE TO GROW UP FREE FROM THE VIOLENCE OF INSTITUTIONAL MARGINALIZATION.
4. WE DESERVE TO CREATE OUR OWN FUTURES.

"This workshop was very effective at setting the tone for the direction of the remainder of the project. Facilitating and participating in the story circles allowed a safe and judgment-free space for us to discuss a story about a time we experienced injustice. It helped to frame our minds into thinking about what we need in the world; what’s working and what isn’t working. This workshop primed the process of creating our final artifacts.

-- Myleena"
Workshop 3: Pod Mapping

At a Glance: Workshop 3 Steps

**Step 1: Introduce the socio-ecological model**
Start the workshop with a simple and clear explanation of the socio-ecological model.

**Step 2: Introduction to pod mapping**
Provide a brief history of pod mapping and explain how it relates to the socio-ecological model.

**Step 3: Example story and pod mapping**
Have one facilitator share a story while the other pod maps the story in front of the workshop group.

**Step 4: Group break out session**
Set aside time for breakout sessions. In these sessions participants should have time to discuss their story and pod mapping with their group.

**Step 5: Map story in on virtual whiteboard**
Give participants at least 20 minutes to map their story onto the pod map.

**Step 6: Small and Large Group discussions**
After participants have finished pod mapping, provide space for both large and small group reflections.
Workshop 3: Pod mapping

We started Workshop 3 by first introducing the socio-ecological or ecological systems-model to the participants. We ensured that facilitators were comfortable and very familiar with the model before the workshop, as this model is a cornerstone to systems thinking and speculative futurism. As this model can feel complex, it was helpful to take time and use real world examples to better position the relevance of the model for the participants.

After presenting the socio-ecological model to the participants, participants are asked to think back to Workshop 2: Storytelling. Participants were asked to either use the story from the storytelling session or think of a new one for the pod mapping activity. Pod mapping is the process of explaining a personal story based upon social structures at play. To help explain the process of pod mapping to participants, facilitators used their own stories as examples. One facilitator first told their story, simultaneously a second facilitator filled out the pod map. The facilitators then discussed the pod map and socio-ecological model with the participants.
Our team used the online shared whiteboard software, Mural, to create a space for each participant to map their own stories since we were interacting virtually. As seen in the example to the left, participants were presented with a moveable map which they could alter based upon their own stories, feelings of injustice, and system level thinking. By breaking down these complex levels into manageable and distinct elements, participants were able to more easily engage with the socio-ecological model as it pertains to their own lived experiences.

In the example to the right, you can see how this participant’s particular story about injustice maps onto larger systems at play. Pod mapping provides a unique and holistic way in which to demonstrate the power of system level thinking. To best facilitate this process, we invited the participants to break up into two groups (3-4 participants each). The first group used the stories they discussed from the first session and the second group took extra time to come up with a
story to pod map. These groups each worked together and shared thoughts and ideas on how they would like to map out their story. After, group members were given around 20 minutes to map out their story. While facilitators provided a mural board for use, participants were allowed to pod map using any format or material that was most comfortable for them.

After the work session was complete, we invited participants to share-out first in their small groups and then with the larger group. While facilitators never pressured participants to share, we made sure to leave time to reflect and decompress from this session. It can be emotionally draining and difficult for participants to share so much of themselves. Furthermore, this may be the first time that participants have reflected on the multi-level systems that organize our society. People can feel overwhelmed and disheartened when confronted with the layered nature of oppression and injustice. Facilitators tried to be mindful of the potential for the emotional complexity of this session and provide ample time to discuss and reflect on this workshop.

**Tips & Tricks**

1. It was sometimes hard to get participants to realize all the aspects of society that influence and affect our individual agency, but it was also empowering to map it all out. Using something like the Mural interface was a great way to conceptualize nodes of power. We took time before the workshop to provide scaffolding and formatting of the interface.
2. We made sure to offer a variety of ways that people can pod map (e.g. by notebook or on the Mural interface).

**Participant Reflections**

“This workshop was also an effective framing for the rest of the project. The socioecological model made it easier to map our stories and conceptualize larger concepts of the socioecological models’ role in our stories and in our everyday experiences. This further helped in framing the idea for what we may want our artifacts to solve or represent in our speculative world.”

-- Myleena
Workshop 4: Speculative Design

At a Glance: Workshop 4 Steps

**Step 1: Introduce Speculative Design through Social Media**
We used Tiktok videos to help introduce the idea of speculative design to the participants.

**Step 2: Graphics and Quotes**
Use theoretical framing to help ground the rest of the workshop.

**Step 3: Group Brainstorm**
The group brainstorm is a great opportunity for participants to begin to share ideas in and around worldbuilding.

**Step 4: Challenge Exercises**
Be sure to save time in the workshop for group challenge exercises. These exercises help to further cement the ideas and concepts broached in these workshops.

**Step 5: Individual Exercises**
During the end of the workshop take some time for participants to think through these ideas alone. This will set president for their individual working period later in the workshop series.

**Step 6: Share Outs**
At the last step make sure that each participant can go around and share out their response to the individual exercises.
Workshop 4: Speculative Design

Workshop 4 introduced the core concepts of speculative design to the participants. Many (if not all) of the participants were never exposed to the idea of speculative design, so we worried this workshop could feel overwhelming. To help root the core concepts of speculative design in an accessible manner, facilitators started the workshop with a video from TikTok user @Ayandastood. This TikTok presents the notion that every societal concept construct was created through the imagination of those in power (i.e., those who benefit most from colonialism, capitalism, and structural inequities); thus, in many ways, we are currently living in the imagination of those in the dominant culture. It then begins to question this and asks the audience, “what would the world look like if it was made from YOUR own imagination?” (i.e., a perspective that has been marginalized by the dominant cultural hegemony). This video was an essential tool in preparing participants to engage with the speculative design and future building space. In starting the workshop with this video, facilitators were able to remind each participant of their own power to imagine a new future.

Following the TikTok video facilitators then presented the concept of speculative design to participants. To do this, facilitators used key quotes from experts in the field to help illustrate the versatility of speculative design. Furthermore, participants were presented with the visual below. This visual helps to illuminate the multiplicity of future possibilities.
Facilitators challenged participants to think outside of the preferable, probable, and plausible sectors into the possible (or not yet thought possible future). By challenging participants to stretch their imagination of what the future could hold, facilitators hoped to ignite design around "beautiful solutions".

Following the introduction of speculative design, facilitators invited everyone to engage in a group brainstorm session. Facilitators and participants alike shared during this brainstorm. As always, a major tenant of work with young people is to deconstruct age-based hierarchies - one way to do this is by participating in all activities that young people are asked to participate in.

This brainstorm was the first opportunity participants were asked to engage in speculative design during the workshop series. As such, participants benefited from some help and reminders of problems addressed in Workshop 3 (pod mapping) and Workshop 2 (storytelling). After the brainstorm session facilitators present examples of futuristic work. To help participants avoid the traps of cliché, facilitators provided common images of popular culture. This helped to demystify speculative design and worldbuilding by demonstrating its occurrence in their everyday lives and by guiding participants away from overplayed archetypes.

Next participants were presented with two challenges. Everyone was asked to share out and reflect on their answers to each challenge. These challenges help to serve as a "warm up" for the individual exercise at the end of this workshop.

Finally, participants were asked pick a system from Workshop 2 or Workshop 3 and reimagine the system. Participants were asked to share out their system and solution to the group at the end of the session. Participants were challenged to think back to the illustration of possible futures. In doing so, they could begin to reimagine a system outside of the realm of plausibility and probability into the realm of possibilities.
**Tips & Tricks**

1. Avoid “red light thinking”. When young people first start to think through speculative designs they have a lot of ideas – we tried not to discourage any ideas.
2. Be the silliest person in the room. It can be difficult for people to loosen up and start to think outside of the box. As a facilitator it’s important to create an environment where people can share lots of ideas without being afraid of standing out.

**Participant Reflections**

I found the question the meeting was centered around, “where does your joy lead you?” very impactful; it’s rare for experiences, whether at school or in another environment, to center so boldly and openly around individual joy. The focus on a future based on joy and justice helped further solidify my personal ideas about the world I want to live in.

--- Akira

During this meeting, the location, legibility, and material of our objects were also discussed, giving us a first chance to deeply think about the look and feel of our artifact. Such guidance helped me—a person without a background in art and design—start to think about the details of how my product may function and therefore also the outward look of the artifact.

--- Myleena
Workshop 5: Infrastructural Worldbuilding

At a Glance: Workshop 5 Steps

**Step 1: Thematic icebreaker and introductions**
It’s always good to start workshop in this way to set the tone and theme for the rest of the session (in our case the theme was love).

**Step 2: Thought Experiments**
To help participants critically about the social constructs we take as given, you can invite them to engage with an initial thought experiment on the key themes grounding their world, and a defamiliarization thought experiment to examine our current reality.

**Step 3: Share Outs**
Be sure to provide space for share outs and reflections after each thought experiment.

**Step 4: Introduce End of Session Cap Stone Project**
Take this time to introduce the end product expected from the workshop.

**Step 5: Working Session**
Make sure to save at least 15 minutes at the end of this session for participants to work on their individual speculative design project.
**Workshop 5: Infrastructural Worldbuilding**

Infrastructural worldbuilding helps to ground and root speculative design in radical hope of the future. To begin the workshop we started with introductions and an icebreaker. In this session, our icebreaker was “what was one thing that brought you joy this week”? We asked each participant and facilitator to reflect and share out what brought them joy this week.

We used this icebreaker throughout the workshop to begin to think through what their speculative design outcome would be. To help further ground the idea of radical hope within the speculative design process we re-introduced the idea of the collective imagination. It is important in curating and developing this space to utilize references to known theorists we discussed. This allows participants to connect back to Workshop 1. Following share-outs and round table quote reading, facilitators then introduced the idea of infrastructural worldbuilding. Infrastructural worldbuilding is a theme that participants should already be familiar with from the previous workshop.

However, facilitators used the icebreaker to help participants conceptualize infrastructural worldbuilding through the lens of joy. Participants were asked to imagine a world in which social structures were built around justice and ensuring everyone had access to joy.

For example, a participant mentioned that fresh flowers brought them joy this week in the icebreaker. They were then asked to think about what it would mean for everyone to have fresh flowers. Would that mean everyone has a garden or that climate change had been solved? Each participant was asked to share out what a world would look like if everyone had access to their joy.

As participants were sharing out, a facilitator took notes on a shared GoogleDoc. Participants were then asked to add to this GoogleDoc with keywords that articulated what a joyful world would look like to them. The GoogleDoc notes were then used to create a word cloud later in the workshop. The purpose of the word cloud is for participants to have a holistic understanding of what a communally joyful world would look like for the group.

After reflecting on the word cloud facilitators asked participants: “How might we convey a sense of this joy and justice-based world to others?” Facilitators situated this query within the idea of artifacts of their joy. To help do this, facilitators referred back to the original ice breaker and thought experiment. From our previous example of our participant who found joy in fresh flowers they were asked to think about how everyone could access fresh flowers? What artifacts or mechanisms were needed to help everyone access fresh flowers equally?
Defamiliarization

A key concept from this particular workshop was the concept of “defamiliarization,” which is the idea of taking something everyday and examining it from an outside perspective, in hopes of illuminating previously unnoticed attributes. In our case, we wanted to workshop participants to defamiliarize themselves with our current lived reality in order to highlight embedded social constructs. We did this with a thought experiment and cypher-style share-out centered on the following prompt:

“Select an object from the current education system, and describe it as if you were an archeologist/anthropologist from the future.”

- We chose the educational system because it was the system with which participants had the most fluency, interacted with on an everyday basis, and identified multiple aspects where structural change was needed.

The resulting cypher was enlivening, illuminating, and most of all fun as participants laughed their way through descriptions of their experience with education. For example:

“This right here is a desk, and students were expected to be at their desk at 8:00 AM sharp and sit there for seven hours and were expected to be in a desk and have the attention span to sit there all day. They would do everything at these desks. They would take tests, and they would try to listen to the teacher. They would even have to go out to the lunchroom, where they would sit down even more and come back to these desks. Their whole day revolved around sitting at these desks, trying to learn.”

"This is an artifact we have discovered. It is called a school bell. It was the keeper of time within the school system, used to dictate when a student could get up from the desk, which [NAME] has so nicely described to us, eat, or talk to other students. Recent research has found that many times, students stared at clocks, waiting for said bell to ring so that they could get up and go to the bathroom."

In these two examples, the process of defamiliarizing oneself with a desk and a school bell, two everyday artifacts of the education system, highlighted the lack of agency and autonomy young people feel at school. These descriptions also imply a future where this lack of agency and autonomy is decidedly not the norm, and helped workshop participants position themselves as someone living in that future. Finally, the process of “making fun” of this system allowed us to not take this current reality as immutable, and to decouple our imagined future from what workshop participants thought was “realistic” given the current state of the world.

At this point during the workshop, facilitators took a moment to introduce the end capstone project to the participants. For our workshops, we asked participants to imagine they are from 200 years in the future and create an artifact of world situated on justice and joy. To assist participants in brainstorming justice-based artifacts, facilitators presented three key elements of design. These elements served as both a way to envision a tangible artifact and reflect on the uses and abuses of past artifacts. For each element highlighted, facilitators used a real-life example of an artifact that synthesized the importance of each design element.
Once we finished discussing the key elements of design facilitators invited participants to work on their artifacts. Participants were presented with the word cloud and prompts to help with brainstorming efforts. We then ended the session with share outs.

**Further reading:**

Tips & Tricks

1. We referred participants back to prior sessions notes and recordings to help them brainstorm and remember past themes.
2. We used a word cloud to help participants understand the type of world that their speculative design will exist in; other visualization methods may also work well.

Participant Reflections

“As a person who hadn’t thought that much about design, this session was extremely helpful. Speculative Design helped me understand the power of art in helping visualize our artifact and also in helping to envision a future with less systematic injustice.”

-- Akira

“This workshop did a very similar thing as session 2 & 3 but was a slightly different approach. Instead of thinking about what was lacking, the idea of following joy encouraged us to follow what was already working, things that brought us joy that we wanted to experience more of. I think this was a good balancing idea to form an idea for an artifact.”

-- Myleena
Workshop 6: Artifacts & Stories

At a Glance: Workshop 6 Steps

**Step 1: Thematic icebreaker and introductions**
We started the workshop in this way to set the tone and theme for the rest of the session (in our case the theme was love).

**Step 2: Socio-ecological model**
An important part of speculative design is understanding systems thinking; to help our participants explore this concept we directed participants to aspects of the socio-ecological model that most closely influenced our themes and topics.

**Step 3: Define terms and historical context**
Regardless of the conceptual model guiding your speculative design workshops, you must define terms and provide a historical backdrop for your conceptual framing.

**Step 4: Real-world usage of a conceptual model**
To make sure that participants are comprehending your conceptual framing, utilize real-world examples and ask for participant engagement. This will help your facilitators gauge comprehension and guide clarification.

**Step 5: Thought experiment**
Finally, utilize a thought experiment that bridges your conceptual framing and speculative design project.

**Step 6: Working Session**
Make sure to save at least 15 minutes at the end of this session for participants to work on their individual speculative design project.
Workshop 6: Artifacts & Stories

This was the last workshop before the final share-out working sessions. This workshop was essential in providing a final reminder to participants about core themes and theories driving their speculative design projects. Since one of the things we wanted young people to consider in their speculative worldbuilding was queering love and kinship, we used the last workshop to discuss and iterate the foundations of Queer theory. Building on the previous workshop’s process of defamiliarization, queer theory seeks to question normative assumptions of gender and sexuality by de-centering cisgender and heterosexual identity in social constructs.

As always, we began the session with a thematic icebreaker and introductions. For this workshop we wanted to recenter and remind our participants about our guiding theme, so we started this session with the icebreaker: “Think about a time when you felt love recently?”. We invited all participants to share and respond to this icebreaker; as a reminder, facilitators were also expected to participate in all activities including the icebreaker. Then we oriented and directed the participants back to the socio-ecological model. It was essential to remind and allow participants to understand how each workshop interacts with one another. In this way, they can get a better conceptualization of systems-level thinking in conjunction with their speculative design work.

After we had set the space, we then began to introduce the key concepts of queer theory. To do this we presented participants with a “mini dictionary” and a “mini history”. Introducing Queer theory in this way not only allowed for everyone to share in the discussion with the same vocabulary and point of reference but it also helped to de-mystify these more complex theoretical frameworks. Secondly, the “mini-history” re-engages themes from Workshop 1 where participants learned the importance of historical ownership.

To help solidify these new themes we presented the participants with an example of a normative family. We then asked them to use speculative design to re-imagine this photo – or to make it “queer”. The arrows placed indicated possible locales in which to reimagine this image. We found this to be a helpful way to facilitate conversation, as the task of imagining anew can feel daunting.

Participants came up with many ways in which to “queer” this image – such as displacing power by imagining the daughter to be at the head of the table, imagining that the flower painting signified that the family was trans, or even that the turkey was a tofurkey burger.

Furthermore, as queer theory is a complicated idea and the term queer is in the general vernacular, the facilitators wanted to make clear that queer theory did not necessarily mean gay but rather non-normative. We positioned the idea of homonormativity, hegemony, and queer theory within common media imagery. Doing so helped the participants understand how to apply the abstract theories to tangible everyday scenarios. To solidify this thought process, we asked participants to yet again “queer” an image – this time of a gay couple from a popular TV show. Participants came up with ideas like: One of them is wearing a skirt, the other uses a wheelchair, or that they are actually in a polyamorous relationship with the others in their relationship not pictured.

After holding a round robin of share-outs about how to “queerify” this image, facilitators then introduced two thought experiments to close out the session. These thought experiments were meant to help participants further think through and attune their speculative design artifact. Participants were first asked to think back to the initial icebreaker “what was a time that you felt
love recently?” and queried what that love says about the world. For example, are there artifacts of their love? How do social constructs affect who and when someone can access love? After each thought experiment facilitators and participants shared-out their reflections.

Secondly, we asked participants how they would queer a social construct. Meaning, how would they problematize a normative structure around love and kinship? Once again, we held cypher share-out after this thought experiment. Finally, we saved the last 15 minutes of the workshop for participants to take time for personal reflection and to work on their speculative design object using the lessons and techniques introduced in the workshop. During this time, participants had access to their workshop transcripts and previous working space. The session ended with a share-out or one-word take away from the workshop.

Tips & Tricks

1. Remember that everyone comes to each workshop with their own perspectives and lived experience. For us, it was important to help center complicated theories by first defining key terms and vocabulary. This helped ensure that everyone was using the same language when participating in discussions.
2. Root theories in common shared imagery and references. Map out how a theory is related to everyday interactions that participants may have witnessed or experienced.
3. End with a thought experiment so participants can apply what they’ve learned. Make sure to leave time to share-out and discuss participants ideas.

Participant Reflections & Examples

I enjoyed this session because it gave me the chance to learn about a new and fascinating topic; I feel like this workshop session changed my worldview in a positive way. It also helped me understand the arbitrariness of norms, which was helpful in allowing me to focus better on imagining a world where things are the way that they should be, rather than a world based on the way things currently are.

-- Akira
Workshop 7 & 8: Working Sessions

At a Glance: Workshop 7 & 8 Steps

Step 1: Communal Working Time
It is important to give participants time to work on their design during the workshop sessions. This will help participants remain focused and have time to ask questions.

Step 2: Conceptual Artist Meeting
During the first working session make sure that each participant has assigned time to work with the conceptual artists one on one. The meeting with the conceptual artist will help participants to think over what the actual speculative design looks like.

Step 3: Peer Mentorship Meetings
Between the two working sessions have your participants meet with either a facilitator or peer mentor. This will help participants to cement their speculative design object further.

Step 4: Share Out
At the start of the second working meeting provide space for share outs. This will let participants share and hear feedback from their peers.

Step 5: Additional Conceptual Artist Meeting
Finally, at the last meeting make sure to provide at least 5 minutes for each participant to meet with the conceptual artist again. Providing this time will let the participant have the final critique and say over the exact imagery of their speculative design object.
Workshop 7 & 8: Working Sessions

The final component of this workshop series is the two working sessions. During these sessions, each participant meets individually with the facilitators and the conceptual artists. In these meetings, participants can talk through ideas, problems, and solutions to the sketches of their artifacts. This is a space for each participant to take ownership of their artifact and direct the conceptual artists in the correct direction for their artifact. Importantly, also during these meetings participants were asked to fill out a short narrative that accompanies the visual design of their artifact. To assist with the narrative the facilitators provided a brief outline. For example, our workshops were focused on finding positive solutions rooted in a joyful future.

To help participants accomplish a narrative around this we provided the following outline:
In 2022, we needed ...
In 2122 the ____ we created to accomplish ....
Now in 2222, a century after the _____ we introduced we have ....

Akira - the Freire

[above: artifact sketch, inspiration, and explanation]

"In 2022, we needed educational reform; we lived in a society where the educational system was: not properly aligning with the lived experiences of many students and not fulfilling the academic needs of both over- and under-achieving children.

Around 2122, the Freire was created to help address this issue. The calmer atmosphere necessary for such a political environment was created with the help of social media reform; increased transparency surrounding algorithms and decreased tolerance of hate speech helped foster a less tribalistic and more cooperative environment. During this time, the issue of educational reform was brought and kept in the limelight with the help of an advocacy group."
Now in 2222, it helps children learn to pursue their interests and pursue education in a more open and free way. While this may seem, on the surface level, to be a way for kids to better find their place in the workforce, it also—on a more personal level—allows kids to mold their own view rather than having it dictated by those who have written their textbooks and designed their curriculum."

Furthermore, between workshops 7 and 8 each participant had a peer mentoring session and an art meeting. These sessions helped participants receive individual feedback and reflections on their projects. During the peer mentoring sessions, participants met over Zoom to discuss how different themes from the past workshops have been or could be integrated into their project. In the meetings with the conceptual artists, participants had a chance to talk through specific ideas and provide feedback on the tangible aspects of their artifact. Finally, at the end of each working session participants were asked to share out about their progress and artifact. The ability to share out was important as it allowed participants to get valuable feedback from their peers and practice explaining their complex ideas to a group of people. The share out process helped participants prepare for the final presentation of their artifact to their family and friends.

[above: artifact sketch, inspiration, and explanation]

"In 2022, we needed a way for people to be able to see from and understand different perspectives than their own."

And in 2110, through much technological advancement and in time for the new decade the Outlook Bubble was created to address this exact thing. The people of Gen X and Z needed, like many past generations did -- drastic social change for their futures. After years of the social climate being divided by the 2 main political parties, the outlook bubble came seemingly as divine intervention, and empowered the people of the United States to overthrow the government entirely. With the outlook bubble being very easily accessible to the general public, more and more people became aware of the inevitable bias they all held about the people in their
They slowly realized the true venom causing division in their world... the grimey political parties and the scam of elected officials.

Now in 2222, years after the government has been officially overthrown, the outlook bubble still holds significance as not only a symbol for true social change, but is used as a mental health aid. The device provides people with self-limiting beliefs a brighter perspective of themselves and allows them to overcome these beliefs, and live happier and more fulfilling lives :)

**Tips & Tricks**

1. Create a narrative outline for participants; this will help to guide them and root them in their objective
2. Refer participants back to prior sessions notes and recordings to help them brainstorm and remember past themes.
3. When working with mentors and concept artists, we reminded the participants that this is their design and let them guide the direction of the conversations.

**Participant Reflections & Examples**

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I appreciated how working sessions allowed us to think and collaborate with members of the Ci3 team on our artifact; without this opportunity, the project would have been much harder.

-- Akira

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Reminders for Successful Speculation

Transcription

During each share-out and cypher section facilitators recorded and transcribed participants’ statements. Participants were then given their transcripts from each workshop session. This helped participants reflect on their journey throughout the workshop series and find connections across themes. It also allowed participants to participate more fully in the moment, as they were not worried about taking notes or remembering their ideas for next time.

Play

Speculation can feel very strange to those who have never been exposed to it before. To help reduce this feeling of strangeness we encouraged facilitators to be playful during the workshop sessions.

Question Asking

We emphasized throughout the workshop session that this is a place where no question is too small or insignificant. If there are co-facilitators in your workshop series, make sure that facilitators ask clarifying questions as well to help participants feel comfortable.

Accessibility

Always provide transcripts and live captioning as an option. For each activity, we created many ways for participants to engage in each workshop. While we encouraged on-camera participation during our cyphers and small group work, it was never mandatory; not everybody has access to a quiet space or their own separate device. Encouraging the use of camera at specific times and for a clear and specific purpose emphasizes agency and choice, rather than making it a hierarchical mandate. Make sure to engage with folks who are participating via chat and never require the camera to be turned on.
Impact of Speculative Design: A Facilitator Perspective

We already create worlds constantly in our minds. Most of the time, those worlds are based on our fears: "What will happen if I don't...?" or "What if we can't...?" It is easy to let these worries and anxieties run our lives -- from the small, everyday ("What if I don't leave on time?") to large-scale existential dread ("What if we don't fix climate change?") But if that is all we imagine, that's the only world we'll create -- and that's the only future we'll have.

It's difficult to break out of the cycles we're in, but discomfort is necessary for growth. A spirit of play is essential to this process: if everything is make believe, why not think about what happens if we do fix climate change? What could the world look like if built not based on our fears and anxieties, but our love and joy? Sure, that may not be realistic -- but this is just for fun. That's the magic of the cypher: taking a story and passing it on, saying "Yes, and..." We're not often taught to do this, but creating spaces for shared imagination is crucial, and making fun of something can often be the best way to put it into perspective.

As a facilitator, I've learned that while this is serious work, you can't take yourself too seriously. Sharing stories and making ourselves vulnerable is what gives a space its heart, and it's our job to keep it beating -- there's no room for ego. Bringing together storytelling, systems thinking, speculative design, cyphering, Afroturism, queer theory and so much more was certainly a labor of love, joy, imagination, and improvisation on the part of so many wonderful people, and I'm honored to have been part of it. And sure, maybe the world we built is on the far edge of the outer cone of probable futures... but imagining something is the first step to making it real. So if I have one final piece of advice to share, it's to let yourself think about a different "What if?"

- Ailea

P.S. And drink water! No, seriously.
Impact of Speculative Design: A Participant Perspective

The speculative worldbuilding project has had a significant impact on my personal perspectives about the future and the political world. Working through the workshops, I felt like I was given a chance to consider the possibility of a positive future - and to believe that a good future is attainable. I found collectively creating a speculative world to be a mind opening and expansive experience, overall.

Each workshop made me consider how our speculative future could be made possible. I learned that having spaces dedicated to having conversations about the state of our current world and how we feel about it; and collectively coming together and creating a speculative world where we are the ones in control to be very important and impactful.

I think that a positive future could be obtainable if we could bring about more of these community-based spaces more often. Within these conversations we were able to bring imagination, the spirit of play, creation, and an energy of collective manifestation. We were given space to make play purposeful as it led to actual future building. Additionally, it was also really nice to be in that space of optimism, especially considering coming out of experiencing these dark times (Covid, insurrection, BLM/police brutality, climate change, etc.).

Finally, I think that these positive futures can be possible if we allow young people to be in spaces where they are in the driver seat of what decisions are made for them and how their futures will look more often. These workshops created a space for young people to be in control of their futures, if not but speculative. I think that this provided young people with feelings of empowerment. We were able to exist in a space where these futures had still yet to become.

-Myleena
Further Reading

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