



*Insight*

## A call for agile futures practice in service of transformative change: lessons from envisioning positive climate futures emerging from the pandemic

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**ABSTRACT.** Amid growing urgency behind the need to curb global greenhouse gas emissions, the COVID-19 pandemic has thrown the world into another crisis. Prominent conceptualizations of transformation suggest that crises like the pandemic may create windows of opportunity for transformative change, such as the scope and scale of systemic change required to address the climate crisis. Additionally, envisioning positive futures plays an important role in building shared commitment and inspiration for transformation, particularly if conducted in transformative spaces where actors with diverse framings and vulnerabilities can experiment with new practices and ideas. Emerging research demonstrates the potential for experimental futures methods to create such transformative spaces. In this study, we aimed to create a transformative space that builds inspiration and shared commitment for climate action while exploring the unique inflection point created by the COVID-19 pandemic. To do so, we constructed a highly creative participatory futuring process for participants involved in climate action in the Kitchener-Waterloo Region (Canada) to imagine desirable futures emerging from the crisis. Because we needed to move quickly and accommodate pandemic-related constraints to explore this unique moment in time, we also aimed to reflect on considerations for an agile futures practice in service of transformative change. Through a virtual workshop and surveys, participants envisioned future worlds in which local “seeds” of positive climate futures emerging during COVID-19 become mainstream. They also wrote science fiction stories of characters navigating those worlds. Observing artists depicted the futures through visual art. Reflections on our experience facilitating the process generated five considerations for a more agile futures practice in service of transformative change: adapt the ideal process to context-specific opportunities and constraints, align with strategic partners while ensuring everyone is in the room, underpin the process with values, treat everyone’s contributions as knowledge, and contextualize the role of inspiration as an outcome.

**Key Words:** *climate action; futures; imagination; transformation; visioning*

### INTRODUCTION

Systemic transformations of the status quo are required to reduce global greenhouse gas (GHG) emissions to the targets outlined in the Paris Agreement (O’Brien 2012, Xu and Ramanathan 2017, Lawrence and Schäfer 2019). These systemic changes occur at multiple scales, from nationally determined GHG emissions reductions targets (Iyer et al. 2017) to individual choices regarding diet and transportation (Wynes and Nicholas 2017). Although the ambition of global and national climate action varies (Cléménçon 2016), local actors like municipal governments have emerged as crucial drivers of ambitious, bottom-up climate action (Bai et al. 2018, Watts 2017).

Amid increasing urgency regarding the need to curb GHG emissions, the COVID-19 pandemic threw the world into yet another crisis. The political and practical parallels between these two crises are undeniable (Manzanedo and Manning 2020). However, they are not only analogous; the COVID-19 pandemic is influencing our response to the climate crisis in complex ways. On one hand, the pandemic devastated health and economic systems, potentially reducing institutional and individual capacity to respond to the climate crisis including at municipal scales relevant for local climate action. On the other, it allowed hints of a low-carbon future to emerge in some contexts as people drive less or vacation closer to home (Nguyen et al. 2021). Moreover, in the early phases of the pandemic, people’s values, which define what matters in a society (Rosenberg 2022), shifted

toward more collectivistic and local behaviors (Evers et al. 2021) that may be compatible with a low-carbon future.

Prominent definitions of transformative change link the role of crises like the COVID-19 pandemic with the type of structural, systemic changes required to reduce GHG emissions (Patterson et al. 2017, Scoones et al. 2020). Sustainability scientists characterize transformation as emerging when marginal “seeds” or niche innovations alter dominant system feedbacks to increase in scale up to higher level systems (Moore et al. 2014, Olsson et al. 2014). According to this definition, a crisis creates a window of opportunity for these marginal structures and practices to enter the mainstream. For example, the COVID-19 pandemic increased support for universal basic income policies in the United Kingdom and the United States (Nettle et al. 2021).

This more mechanistic definition of transformation is accompanied by the recognition that transformation is messy, influenced by actors with diverse stakes, values, and vulnerabilities associated with the systems we seek to change (Leach et al. 2010, Blythe et al. 2018). Thus, transformation cannot be steered but rather navigated, aided by transformative spaces in which people with multiple framings and interests can experiment with novel ideas and practices to help motivate and strategize a shift onto desirable future pathways (Pereira et al. 2018, 2020). Additionally, value change may be inseparable from, and thus contribute to, such emergent processes of change

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(Rosenberg 2022). From this view of transformation as messy and value-laden, a crisis may represent an important inflection point in the pursuit of transformative change. We adopt the metaphor of an inflection point to describe the novel capacities, values, and practices emerging during the COVID-19 crisis that may create unique opportunities for transformation toward low-carbon futures.

According to both perspectives on transformation, envisioning desirable futures plays an important role in building shared commitment and inspiration for change (Moore et al. 2014, Pereira et al. 2018). Such positive visioning is particularly important to counter the “doom and gloom” narratives common to the climate crisis (Hinkel et al. 2020). Normative scenario methods offer useful tools for steering change (van der Helm 2009, Wiek and Iwaniec 2014). However, creating transformative spaces calls for more creative, experimental futures methods that tap into participants’ collective imagination about the future by combining structured futuring with participatory visioning and art (Pereira et al. 2018, Hamann et al. 2020).

In this study, we aimed to create a transformative space that builds inspiration and shared commitment for climate action while exploring the unique inflection point created by the COVID-19 pandemic. To do so, we constructed a creative participatory futuring process for a group of participants involved in a local climate action initiative to imagine desirable futures emerging from crisis. We intentionally framed this study as inspirational, i.e., divorced from the need to connect the process to strategic action, to keep participants in a mindset of creativity and possibility. However, although we aimed to help participants imagine positive futures, we were not interested in wildly utopian visions and made methodological choices that attempted to make these futures more tangible and “real,” rooting these visions in present-day shifts in practices and values. We were also humble about our role in transformation; we did not expect to see a clear link between our study and climate action on the ground. Rather, we sought to create a space in which people may feel inspired and connected, trusting that such processes are situated within and intangibly linked to larger arcs of change.

Our second aim relates to the timing and urgency of our study; we were committed to ensuring our futures process occurred during the height of the pandemic to explore the inflection point created by a crisis. This required us to act quickly and adapt to unique and ever-changing opportunities and constraints associated with the pandemic. In other words, we had to be agile. For example, we were constrained to a virtual environment because of pandemic-related restrictions on in-person activities, which limited the amount of face time with and among participants. Consequently, our second aim was to reflect upon considerations for an agile futures practice in service of transformative change.

We brought this study to the Kitchener-Waterloo (KW) region in Ontario, Canada, because we could align our inspirational study with a recently completed strategic planning process. The strategic plan outlines a pathway toward achieving an ambitious target of 80% reduction below 2010 greenhouse gas emissions level by 2050 (ClimateActionWR 2021). Their plan had not yet considered the influence of the COVID-19 pandemic.

In this reflective, methodologically focused paper, we first discuss our framing and methodology choices before presenting the results of the study, including the worlds, stories, and art generated through the futures process. We then discuss the implications of our framing and methodology choices on the research outcomes, in addition to our reflections on the process summarized as five considerations for a more agile futures practice in service of transformation. These considerations can be taken up by researchers and practitioners attempting to inspire positive change during a crisis.

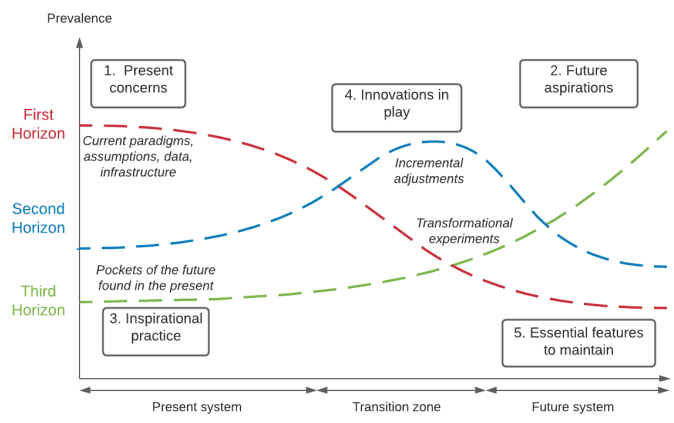
## METHOD

### Framing

#### *Guiding framework*

Our first methodological choice was to select a framework to guide our study. The purpose of the framework was to ensure our process connects to our definition of transformation by (1) envisioning desirable futures as emerging from “seeds” or inspirational practice in the present, and (2) considering potential value changes that accompany these changing practices. We selected and combined elements of both Three Horizons (3H) and Appreciative Inquiry because they are complementary frameworks that satisfy these criteria. The 3H framework is a sense-making framework for navigating complex futures, as depicted in Figure 1 (Sharpe et al. 2016). The First Horizon is the declining pattern, the Third Horizon is the emerging future pattern in which present-day innovations become mainstream (i.e., satisfying criterion 1), and the Second Horizon is the messy transition zone of innovation where the First and Third Horizons interact. Appreciative Inquiry was developed as a methodology to help organizations become more effective (Elliott 1999). In the early phases of an Appreciative Inquiry process, participants recount significant moments of excellence or achievement in their organization’s past, focusing not only on the events themselves but also the underlying values and learning contributing to them, thereby satisfying criterion 2. Then, participants envisage an ideal future rooted in this positive history, satisfying criterion 1. Because the goal of our process was to facilitate connection and inspiration, we focused on the early visioning phases of these frameworks, excluding the elements that are focused on strategy and operations.

**Fig. 1.** Depiction of Three Horizons Framework guiding the research process; adapted from Sharpe et al. (2016)



**Table 1.** Organizations contacted for recruitment

| Organization                  | Structure  | Relevant Climate Goal  | Link  |
|-------------------------------|--|--|---|
| ClimateActionWR               | Collaboration between local organizations, community members, and municipalities | 80% GHG emissions reduction (based on 2010 baseline) by 2050   | <a href="https://climateactionwr.ca/">https://climateactionwr.ca/</a>                             |
| Sustainable Waterloo Region   | Social enterprise non-profit; co-lead of ClimateActionWR                         | Catalyze transformation to sustainable systems of energy, mobility, and buildings to build a cleaner, more diverse economy | <a href="https://www.sustainablewaterlooregion.ca/">https://www.sustainablewaterlooregion.ca/</a> |
| Reep Green Solutions          | Environmental charity; co-lead of ClimateActionWR                                | Empower the community with the practical tools, knowledge, and capacity for action to make sustainable living the norm     | <a href="https://reepgreen.ca/">https://reepgreen.ca/</a>   |
| Faith Climate Justice Network | Collective of faith communities in Waterloo Region                               | Advocate for climate action and a just recovery from the COVID-19 pandemic   | <a href="https://www.faithclimatejustice.ca/">https://www.faithclimatejustice.ca/</a>             |
| 50 by 30 Network              | Climate action advocacy network  | Advocate for the Region of Waterloo to adopt a 50% GHG emissions reduction by 2030 target                                  | N/A   |

*Partner organizations and participants*

We conducted the study as a complement to the Climate Action Waterloo Region (ClimateActionWR) strategic planning process, though the study was not directly affiliated with ClimateActionWR. We chose to align with ClimateActionWR because of their ambitious climate action targets (i.e., 80% reduction of greenhouse gas emissions by 2050) and their strong partnerships with related organizations from which we could draw participants. Moreover, they were finalizing a strategic planning process that did not yet consider the impact of the COVID-19 pandemic on climate action at the time of the study. Thus, invitations to participate were sent to staff and volunteers of ClimateActionWR, Sustainable Waterloo Region, Reep Green Solutions, Faith Climate Justice Network, and the 50 by 30 Network, as further described in Table 1. We also invited visual artists to observe the workshops and depict the findings through the visual medium of their choice. These artists were recruited through the Fine Arts program at the University of Waterloo. We chose to involve artists to bring greater creativity to the process and to offer a tangible outcome that could be donated to ClimateActionWR at the conclusion of the study.

*Time frame*

We chose the year 2072 as the time frame for the exercise. Although the year 2050 may have been a more obvious selection of time frame to align with the ClimateActionWR strategic planning process, we selected the year 2072 for two reasons. First, we prioritized participants' creativity, so we did not want participants to feel constrained by their perceptions of future plausibility developed through recent strategic discussions for the year 2050. Second, prior facilitation experience taught us that a far-future beyond 2050 can help open the minds of participants to more imaginative and transformative futures.

*Fictional premise*

We framed the study with a fictional premise to anchor participants in the far-future. We told participants that journalists were contacting them from the year 2072 to write a story about how the KW region used the COVID-19 pandemic as a window of opportunity for climate action. We communicated this fictional premise to participants in the pre-workshop survey (more details below), which included a link to the following audio recording.

*Greetings, this is Anita Lazurko, dispatching to you from the year 2072! I am a journalist and have been assigned to write a feature on social change in the year 2020. While*

*I am sure this year has been a bummer for you, I think this feature might really help my career take off! Jokes aside, while the pandemic is dominating headlines for you now, we have identified that the year 2020 is also the moment that the Kitchener-Waterloo region really turned things around for climate change. If you are surprised, just know that we are too! That is why we are asking you to fill out this survey to help us understand what is going on for you at this time. What is important to you? What changes are happening in your life? What do you hope for in the future? We look forward to meeting you soon!*

Participants were reminded of this whimsical, fictional premise periodically throughout the study. Rather than have the researchers visit participants from the future, another equally valid approach would have been to prompt participants to imagine themselves in the far future, reflecting back on the past. This may be another worthwhile option to explore.

**Methodology**

Because of COVID-19 restrictions on in-person activities, the study was entirely virtual. Consequently, we chose to break up what could have been done as a 1 or 2-day in-person workshop into multiple stages to limit virtual workshop time to under 3 hours. The methodology included three phases: a pre-workshop survey, a virtual workshop, and a post-workshop survey as summarized in Table 2.

**Table 2.** Summary of methodology stage and purpose

| Stage                | Purpose  |
|----------------------|--|
| Pre-workshop survey  | Introduce the fictional premise and 3H framework; Generate content to serve as inputs to the workshop.   |
| Workshop             | Co-generate visions and narratives of a positive future emerging from the pandemic; Test a novel combination of futuring techniques; Debrief the workshop. |
| Post-workshop survey | Further debrief the workshop.  |

*Pre-workshop survey: eliciting “seeds” and value changes*

The pre-workshop survey introduced the fictional premise of the workshop with a link to the audio recording above and questions to gather data that would serve as inputs to the workshop. These

questions were guided by various aspects of the 3H and Appreciative Inquiry frameworks, including (1) present concerns for climate action in the Kitchener-Waterloo (KW) region (Box 1 in Fig. 1), (2) changes to future aspirations emerging from the pandemic (Box 2 in Fig. 1), (3) value changes and lifestyle changes participants had adopted during the pandemic (Boxes 3 and 4 in Fig. 1), and (4) inspirational practice (major achievements) from the local area for a climate-friendly future (Box 3 in Fig. 1). The full list of survey questions is included in Appendix 1. The results of the pre-workshop survey were analyzed either by counting the most common selection (e.g., of values from the list provided in the survey) or by using a simple content analysis for long form responses. The content analysis involved reviewing the responses, coding participant statements for common themes (e.g., local food, sustainable transportation, etc.), and grouping them to generate a short list of seeds. No initiatives were discarded from this process, so the final seeds reflected all participant responses. These results were presented to participants and used throughout the virtual workshop.

#### *Virtual workshop: building a future world and a science fiction story*

The workshop was the core focus of the study and included facilitators, participants, and visual artists. Artists were able to contribute, but their primary role was to observe and then later depict the futures discussed during the workshop. The workshop was a creative futuring process that occurred in four stages: a full-group introduction and presentation of survey results, two breakout sessions, and a full-group debrief. The workshop began with simple introductions in which each participant shared something they are grateful for. Researchers then presented back relevant results of the pre-workshop survey, including value changes during the COVID-19 pandemic (i.e., values that have become more important or less important to respondents) and inspirational practice emerging during COVID-19 (i.e., more sustainable or climate-friendly lifestyle or policy shifts). This initial framing rooted the workshop in gratitude, community and individual values, and organizational achievements as inspiration for transformative change, aligning with Appreciative Inquiry (Elliott 1999), and emerging values-based scenario processes (e.g., Harmáčková et al. 2021). It also provided the seeds that groups could select from in the breakout sessions.

The core of the workshop was conducted during two breakout sessions, in which the group was split into two groups (A and B). Each group was guided by one or two breakout session facilitators and a collaborative Google document. The purpose of session #1 was to build a future world in which a “seed” of inspiration for climate action emerging during the COVID-19 pandemic becomes mainstream around the year 2072. These seeds were harvested from the pre-workshop survey (i.e., inspirational practice and lifestyle shifts during the COVID-19 pandemic), where groups were first asked to select a seed to use as a launch point for building their future world. We chose this starting point because it mines directly for seeds of inspiration for climate action during the COVID-19 crisis. To facilitate the process, we were inspired by the Mānoa mashup method, which uses the futures wheel methodology (Glenn 2009) to build out a future scenario from a seed of inspiration in the present (Pereira et al. 2018, 2021). The futures wheel methodology allows participants to render those transformations more tangible by systematically building out first- and second-order interconnections and implications of the targeted change.

Because of time constraints and lessons learned from researchers’ prior experiences using the futures wheel method, we simplified this process by using prompts inspired by the futures wheel exercise without attempting to use the futures wheel diagram itself. Participants were asked questions such as: How could (or has) that inspirational practice impact(ed) your life and your community: How does it work? What does it do? What does it look like? Further prompts are elaborated in Table A2.1 in Appendix 2.

The purpose of session #2 was to write a story about a character navigating the future world discussed in session #1. For this, we were inspired by science fiction prototyping, a method that reframes creative writing as a strategic imaginative tool (Johnson 2011, Merrie et al. 2018). We chose this method because storytelling can be a powerful tool to open processes of co-creation and learning across different perspectives (Goldstein et al. 2013, Veland et al. 2018). Moreover, imagining an individual character making choices and interacting within the future discussed in session #1 makes these transformative futures even more real. Again, we conducted a simplified or rapid science fiction prototyping process using prompts that led participants to collaboratively develop a character and plot line underpinned by the future world in session #1. For example, participants were asked to choose and describe a protagonist, a set of decisions and challenges their protagonist faces, and how they overcome them. More detailed prompts are summarized in Table A2.1 in Appendix 2.

Following the two breakout sessions, the full group came together to debrief the process. The purpose of the debrief was to assess participants’ experience in the study, offering an indication of the degree to which we created a transformative and inspirational space. Debrief prompts were the following: (1) What was the best and most challenging part of this process? (2) Did this session make you hopeful about the future of climate action? (3) Do you feel more prepared to pursue a crisis as a window of opportunity for change?

#### *Post-workshop survey: evaluating our “transformative space”*

The post-workshop survey built upon the workshop debrief to further evaluate participants’ experience in the study. The full list of survey questions is included in Appendix 3.

## RESULTS

### Participants

There were 14 participants in this workshop, including the members from the KW region, the artists, and the facilitators. Three of the workshop participants responded to both the pre- and post-workshop surveys. We originally hoped for approximately 20 participants and higher survey participation, but a combination of virtual meeting fatigue and scheduling conflicts may have contributed to lower-than-desired participation. Still, the aims of the study could be achieved, because 14 participants were adequate for two breakout groups and provided a rich pool for discussion.

### Pre-workshop survey: seeds and value changes

The results from the pre-workshop survey presented several inspirational practices and lifestyle changes emerging during the COVID-19 pandemic. These seeds of a more sustainable future fell into a few major themes. Practical shifts included reduced

carbon emissions from daily commutes because of work from home policies, greater support for local business and products, in particular local food, and recent implementation of a zero-emissions mass public transport system. Participants also shared that ongoing racial justice movements emphasized the need for low carbon transitions to serve vulnerable populations. Participants noted that the COVID-19 pandemic demonstrated how quickly governments can respond to crisis, suggesting that they ought to also treat the climate crisis with such urgency.

Participants selected from a list of values that became more and less important to them during the COVID-19 pandemic. Values that became more important included empathy and balance (2 participants each), in addition to continuous improvement, tolerance, understanding, unity, and vision (1 participant each). Values that became less important included competitiveness, discipline, structure, perfection, physical fitness, professionalism, achievement, and originality or daily novelty (1 participant each). These responses were accompanied by quotes such as “the pandemic has shifted my way of thinking, to be more aware of the need to come together as citizens and help the most vulnerable, as we are only as strong as our most vulnerable” and “I have been more of the mindset of going with the flow since last year. I have also let go of any competitiveness in my industry. I have been trying to help people more, share more resources that I wouldn't have before.”

#### Workshop: building a future world and a science fiction story

Breakout sessions #1 (world building) and #2 (sci-fi prototyping) were both conducted in two groups, Group A and Group B. The topics of the future worlds and the basic plot of the stories developed are summarized in Table 3, with full details included in Appendix 4.

**Fig. 2.** Art from Breakout Group A, focusing on greater support for local products and businesses



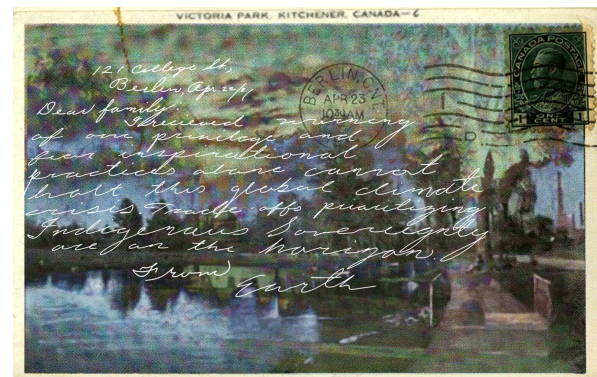
#### Workshop: visual art

Two visual artists observed Group A and submitted the art in Figure 2. The art piece on the right depicts a community gathering, with an array of fresh produce and a sign that states “community lunch today.” The art piece on the left was accompanied with a statement: “This work represents the “three sisters” crops in response to three ideas among the participants: knowledge-sharing, local food production, and respect for Indigenous people

and rights. The artwork produced is a reduction linocut that uses a linoleum surface to transfer an ink design onto paper. For each color, the surface must be modified in a permanent way to complete the design. Using this technique, the artist can only move forward.”

One visual artist observed Group B and submitted the art in Figure 3, titled “From Earth, 2021.” The art piece included the following statement: “Digital drawing, dimensions variable. A letter to the future has been produced using 1900s printed-in-Germany postcards, courtesy of the Kitchener Public Library. The card reads “121 College St, Berlin Apr. 22/21 Dear family, I received warning of our privilege and fear inspirational practices alone cannot halt this global climate crisis. Trade-offs prioritizing Indigenous Sovereignty are on the Horizon. From Earth.”

**Fig. 3.** Art from Breakout Group B, focusing on greater support for local food systems, in particular food forests



#### Debrief and post-workshop survey

Three key themes emerged from the workshop debrief and post-workshop survey. First, participants clearly enjoyed the process and had fun imagining together. Second, participants emerged from the process feeling energized and inspired, equipped with an example of a storytelling process they can use to explore positive futures emerging from crisis. Third, participants faced challenges jumping into the process with unfamiliar people in such a short time frame, particularly in a virtual environment. See Table 4, which offers a demonstrative quote from the debrief for each theme. A full list of relevant quotes is included in Table A5.1 in Appendix 5.

#### DISCUSSION

##### Implications of choices regarding framing, methodology, and our “transformative space”

###### Utilizing the framework

We adopted a novel framework by underpinning our futures process with both Appreciative Inquiry and the 3H Framework. We brought key concepts from Appreciative Inquiry into the process by collecting participants’ values changes during the COVID-19 pandemic in the pre-workshop survey, starting the workshop with a round of introductions in which each participant shared something they are grateful for, and presenting the value changes from the pre-workshop survey at the beginning of the workshop. In our case the novel use of values in a futuring process

**Table 3.** Summary of future worlds and stories created in the workshop

| Workshop step                      |                         | Group A  | Group B   |
|------------------------------------|-------------------------|--|---|
| Inspirational practice or “seed”   |                         | Greater support for local business and products emerging during the COVID-19 pandemic becomes mainstream, inspired by participants’ experiences with local business and local agricultural products and practices.   | Greater attention to locally grown food emerging during the COVID-19 pandemic becomes mainstream, using a local food forest as an example (i.e., a way of growing edible plants that mimics a natural forest ecosystem).  |
| Future world (key characteristics) |                         | People purchase everything at small businesses; the COVID-19 pandemic made doing so a badge of honour. Changing gas prices made local food the only affordable option.<br>Kitchener-Waterloo pursued urban agriculture at scale, becoming an agricultural hub for everyone within a day’s drive.<br>The COVID-19 pandemic recharged people’s desire for community, driving small business networks and technology development (like local shopping apps and delivery drones).  | Food forests began as community-based volunteer initiatives but eventually scale until everyone is expected to help maintain the forests and enjoy the food they produce. The forests create opportunity for cooperative learning and social inclusion as people come together for harvest, to share meals, or store food for the winter. The forests spark learning about sustainable agriculture and bring together Indigenous and settler communities. Subsidy programs are set up to ensure food from the food forests stays affordable.  |
| Science fiction story              | Character               | Lana, a young Haudenosaunee land defender and community leader who is level headed and proactive.  | The Young Urban Farmers of Kitchener-Waterloo (YUFKW), a group of five young people guided by a charter of principles related to food sovereignty, food security, and relationships.  |
|                                    | Decisions               | Lana helped bring small business into the mainstream by making land use planning more inclusive and democratic, resulting in more green space and fewer cars.<br>Lana worked with regional leaders to avoid gentrification and displacement by making the housing market more affordable and less volatile and organizing diverse neighborhoods.<br>Lana set up a platform for cooperative discussion about land use and fostered a weekly gathering to bring people together for a meal or community market.<br>The community gathering became a forum for discussing environmental issues. | The YUFKW sought to scale the food forests initiative, so they first needed to find land.<br>They prioritized land return to local First Nations, enabled by a Council for Reconciliation that was established and shifted the balance of power in the relationship between Indigenous and Canadian governance.<br>A father of one of the YUFKW members was a local farmer and helped return large swaths of land.<br>Several churches that had closed in the early 21st century sold land to Indigenous developers.<br>Zoning policies changed to allow green spaces (and food forests) to flourish. |
|                                    | Setbacks                | Some people were suffering from the long tail of the pandemic (i.e., social isolation) so were not interested in attending in-person events.   | YUFKW faced severe neighborhood opposition to the food forests; some neighborhoods even litigated against them.   |
|                                    | Resolution and learning | Lana responded by offering virtual options to attend local events.<br>A community fridge allowed people to pick up their local food without interacting with others.   | Supported by the Council for Reconciliation, the YUFKW won their day in court and set a precedent for all young farmer groups across the country.   |

came from seeing how values were changing during a crisis, thus potentially reaching deeper into the inflection point. Still, our approach to incorporating values into the futures process was indirect, because participants were not explicitly asked to consider these value shifts in their worlds and stories. Interestingly, participants seemed to incorporate these values into their stories anyway. Values-based futuring that unites frameworks like Appreciative Inquiry, Dragon Dreaming, or Theory U (Scharmer 2009, Dragon Dreaming Institute 2017) with creative futures methods may connect with participants’ fundamental desires and push more futuring processes into the transformative realm.

We incorporated the 3H framework more explicitly by setting up the pre-workshop survey questions and workshop stages according to box 1, 2, and 3 in Figure 1. Although we never disclosed the use of Appreciative Inquiry to participants, we introduced the 3H framework to participants in the pre-workshop survey and explained it again at the beginning of the workshop. We chose to make the details of the 3H framework explicit, because the framework helps explain why the workshop focused on imagining inspirational practice as mainstream in the future. The framework seemed to resonate with facilitators and participants as a tool for structuring complexity and sparking

creativity, in particular boxes 1, 2, and 3 of Figure 1. Our choice to exclude boxes 4 and 5 (i.e., which focus on current innovations and essential features to maintain) was effective, though processes that aim to connect inspiration to strategic thinking may consider using the whole framework.

*Selecting and engaging participants*

The study participants were recruited from local climate action networks and civil society in KW, so most of them agreed with the need for transformative climate action and were eager to jump into the futuring exercises. This value- and worldview-based alignment was beneficial in an online, fast-paced environment. Additionally, aligning with the ClimateActionWR strategic planning process was useful given time and resource constraints because several local organizations were nurturing networks to draw on recruitment. Although this targeted recruitment strategy purposefully excluded some demographics, such as industry or policy makers, it also resulted in a lack of Indigenous representation in the study. Climate action in Canada is deeply connected to the future of Indigenous governance, so future processes like this must prioritize recruitment of Indigenous participants.

**Table 4.** Quote for each theme of the debrief

| Theme                         | Demonstrative quote  |
|-------------------------------|--|
| Enjoyable and fun             | “I think the science fiction aspect of it made it more fun. I love talking about this stuff in any form, but this just added another layer of fun to it... Especially around a topic like this. Talking about climate change in the middle of a pandemic is not the most fun thing you can do and it can get overwhelming and very sad very quickly. It was actually fun the whole time to talk about this stuff and imagine the future.”                                |
| Finding opportunity in crisis | “One way that I feel more prepared [to use crisis as a window of opportunity for climate action] is to have an example and see how it’s done around storytelling about the future. Because storytelling is such a powerful way to kickstart our imagination and communicate our ideas... I feel better prepared just to have been part of this process and think okay, this is another tool that we can use to imagine a better future for our community, so thank you.” |
| Challenges                    | “The challenging part was trying to develop this narrative with a short time frame. We probably could have spent another hour just rolling off different ideas and building up this storyline, but also just thinking through the practical challenges that would come up in this story and realizing there are a lot of challenges that would get in the way of this ideal future, and how would a community let alone one person address those. It’s a daunting task.” |

A more diverse set of participants would require adjustments of framing and methodology, such as providing more time for discussion and consensus-building and hiring facilitators trained in conflict resolution. An alternative approach could avoid attempts at consensus, which can inadvertently marginalize discordant viewpoints (Gregory 1996), by designating breakout groups according to alignment of values and worldview. Distinct groups could then generate their own positive futures, and the debrief could focus on comparing these alternative scenarios. Such a process may be a way of enacting ontological agency offered by the framework of worldmaking, where scenarios are each considered alternative worlds, rather than as narratives about the same world (Vervoort et al. 2015).

*Developing positive futures*

Our futuring process sought to help participants imagine positive futures that were not wildly utopian but rather felt contextual and real. This informed several methodological choices, such as allowing participants to choose a seed for their future worlds that is familiar to them, and by asking participants to imagine setbacks their character may need to overcome to achieve their goals. Although the resulting worlds and stories were clearly desirable in the eyes of the participants and they were rendered more realistic by adding details and characters, the degree to which they were truly realistic positive visions is unclear. Moreover, it is doubtful that these visions are universally desirable. For example, Group B’s story about redistributing land may be less desirable for farmers whose livelihoods may be impacted.

*Facilitating an agile world-building process*

Our methodology effectively helped participants build out a future world where a promising seed of the future becomes mainstream. Including a pre- and post-workshop survey was an effective methodological choice given the time constraints of a virtual workshop format. The workshop formed the core of the methodology, offering several lessons learned. First, active facilitation is required in a rapid, virtual environment. For example, participants in one group struggled to agree upon which seed to scale in their future world, so they lost time imagining the future world. A more active facilitation process (e.g., brainstorming a short list of three seeds and dot voting) may help groups move on to the more important creative process that follows. One breakout group facilitator demonstrated the value of active facilitation by asking participants to close their eyes and

imagine themselves firmly rooted in that future using all their senses (sight, hearing, smells, etc.).

Additionally, participants have the tendency to return to the present or near-future, so facilitators play a crucial role in actively pushing participants into the imaginative far-future. For example, one facilitator offered anecdotes about how different 2021 is from the 60s and 70s (so imagine how different 2072 could be from today), which sparked a cascade of imaginative ideas from participants. Setting a timer for “imaginative strength” and “weirding” checks may help anchor participants more consistently in transformed futures (i.e., are the futures we’re describing “weird” or “imaginative” enough to represent a far-future, or are we too constrained by our present-day assumptions?). Additionally, discussing the potential impacts of exogenous trends (e.g., technology, artificial intelligence, etc.) may help avoid one-dimensional futures by situating their transformed far-future within a broader system (e.g., neighborhood opposition to the food forest initiative in Group B’s story).

Finally, the process was inspired by prompts from the futures wheel methodology (Glenn 2009). We chose not to use the visual tools this methodology usually relies upon because of time constraints, which was an effective methodology choice for the context. However, while this made the process quicker overall, the lack of diagram or systemic structure for worldbuilding may have limited the scope of insights to those that can be imagined intuitively. An in-person and/or lengthier version of this methodology could and should employ the full futures wheels to reveal richer and potentially more surprising future conditions.

*Developing narratives through an agile science-fiction prototyping process*

Our rapid sci-fi prototyping methodology was efficient and effective. In less than three hours, participants developed a character navigating a future world that looks dramatically different from today. This process offered several lessons learned. Because of time constraints, we used prompts that set constraints around the science-fiction prototyping. For example, we made the character a policy leader and limited the scope of their actions to two or three policy decisions. Some participants pushed back against the “policy maker” framing. What about the leader of a social movement or entrepreneur? Similarly, they pushed back against limiting the scope of decisions their character could make to policy decisions. Is policy change where transformative change

happens? This pushback points to the potential trade-offs involved when bounding a creative process according to our subjective viewpoints. Additionally, participants in one group found it easier to imagine setbacks than positive outcomes for their characters, so facilitators may need to help encourage a more balanced narrative.

Active facilitation is required to push participants to consider the ripple effects of an event beyond their chosen character to a wider range of implications for individuals and society in their future world. We are familiar with frameworks like STEEP-V (iterating through social, technological, economic, environmental, political, value-oriented impacts) and VERGE (discussing how people “define,” “relate,” “connect,” “create,” and “consume” in new ways in the future world) that help facilitate this process (Lum 2015). However, we did not explicitly incorporate these frameworks, allowing facilitators to bring these frameworks into their facilitation through informal prompts and follow-up questions. We chose this approach to avoid burdening the process with more formal frameworks that might take participants out of their creative headspace. Similar processes may consider using STEEP-V or VERGE explicitly, and if not, facilitators should not be afraid to ask specific, potentially leading questions that help participants expose hidden connections or insights.

#### *The use of art*

Art can be a powerful tool in transformative futures processes (Galafassi et al. 2018, Pereira et al. 2018). In this study, we attempted to unite fiction, art, and climate action in a collaborative process that positions study participants as contributors to, not consumers of, art. During the workshop, artists observed and produced pieces of visual art based on their interpretation of the process. One breakout group facilitator rapidly wrote a science fiction story about the character and plotline of Group A (see Box in Appendix 4). This combination of artistic aspects were a function of prior expertise and experiences of the researchers. Using theater instead of visual art, having facilitators carry out the fictional premise by acting as “interviewers” from the future, or any number of other options are available.

#### *Our “transformative space”*

The future worlds and stories generated in our futuring process were unique. Both groups developed worlds in which supply chains are intensely local and the culture has shifted to prioritize community and care. Both groups also explored additional topics such as issues of inequality and injustice. However, each group’s story was very different. Group A’s story focused on the role of an individual leader on local land use and community planning, while Group B’s story focused on a young farmer’s group, connecting a local food forest initiative to advocate at a federal policy level. These similarities and differences reveal two important insights. First, participants were able to weave together multiple social, economic, and environmental shifts important to them into their future visions despite the stated focus on one specific seed of inspiration. Second, these future worlds and stories were rooted in values such as empathy, tolerance, and balance that emerged as more important to participants during the COVID-19 pandemic. Thus, the process was not only unique to the context and the participants but was tied to the unique inflection point presented by the crisis. A potentially interesting approach may be to compare such scenarios to other climate

change-related scenario sets at local or global scales. However, our approach was intentionally creative, local, and bottom-up, and so we considered such an analysis was beyond the scope of what we set out to do.

We started this process humble about our role in transformation, stating that we did not expect to clearly link our study to climate action on the ground. Rather, we sought to generate a space of inspiration and connection, trusting that such processes would follow people into their lives. By aligning with ClimateActionWR’s ongoing strategic plans, we also offered a source of inspiration that may meaningfully, albeit indirectly, inform the ongoing work of local actors who participated in the study.

The debrief results show that many participants clearly enjoyed the process and left inspired and energized. Participants voiced their appreciation and renewed “hope,” appreciating a moment of fun and connection amid the pandemic. We believe such emotions are essential for building and maintaining momentum for change by influencing participants’ actions in the future. We also believe this inspiration is a worthy outcome on its own. However, amid the messiness of transformation, such inspiration may be one of many processes that contribute to emergent systemic change. It is difficult or impossible to evaluate whether, and in which contexts, such inspiration motivates truly transformative action or is merely a fun, feel-good exercise.

Importantly, a fundamental aspect of transformative spaces is that they are “safe enough” for actors to expose and discuss potentially conflicting assumptions underpinning their framings and interests in transformation (Pereira et al. 2018). We fell short on this aspect because our participant pool was relatively values-aligned from the start and our recruitment protocol inadvertently excluded some of the more marginalized perspectives in the community. To add even greater complexity, our role as creators of a transformative space means that a piece of us entered and remained within the context, so evaluating the success or failure of our process depends on our own positionality.

#### **Five considerations for agile futures practice in service of transformative change**

Futures researchers and practitioners may learn from our experience to adapt and replicate our methodology in new contexts and during future crises. In addition, our experience constructing, executing, and reflecting upon our study surfaced broader questions involved when mixing and matching futures frameworks and methods to respond quickly to a crisis. Thus, we offer five considerations for agile futures practice in service of transformative change. Each consideration is accompanied by a guiding question, which in our view will help futures researchers and practitioners act efficiently and reflexively to explore the inflection points presented by future crises.

1. Adapt “ideal” process to context-specific opportunities and constraints. Many promising frameworks and methods are complex, demanding significant expertise and time. Yet, practical constraints during a crisis may not afford the resources and time to consider and execute the options in full. A more agile futures practice requires us to trust our intuition and capacity when mixing and matching familiar frameworks and methods to suit the context. Local partners in our study context already considered strategic scenarios prior to the study (i.e., setting clear visions and/or objectives and pathways to achieving them), so our



value was to help actors envision creative positive change emerging from the crisis. We had prior experience with several methods including futures wheels and science fiction prototyping, so we could quickly select and adapt these methods for this study purpose.

An agile futures practice asks: How can we quickly adapt our “ideal” framework or method to suit our capacities and the context? What is gained and lost in the process?

2. Align with strategic partners, while ensuring everyone is in the room. Building momentum behind an experimental futures process from the ground-up is resource intensive and may fail as priorities shift during times of crisis. Aligning with strategic partners can guide researchers toward a study process and outcome that resonates with people in the local context. However, we all have a stake in the systems we seek to transform and if partnerships and recruitment processes are not pursued reflexively, the process can risk further marginalizing already vulnerable groups. Moreover, certain framing and methodological changes may be required to accommodate a diverse set of participants.

An agile futures practice asks: Which strategic partners will allow us to move quickly while ensuring everyone is in the room? Does our futures process accommodate multiple perspectives? Is our recruitment and facilitation process challenging or reinforcing existing power structures, and how?

3. Underpin process with values. Transformation has implications for diverse actors with a stake in the systems we seek to change. A more agile futures practice risks skipping over questions of values, particularly during crises when values are in flux. However, societal values indicate what is considered as important in a context and are linked to transformation. By making values explicit, the futures process may help reveal the implications of shifting societal values at scale and root participants in a common humanity that permeates the rapid, experimental futures process that follows.

An agile futures practice asks: How can we foreground values in this futures process in a way that helps participants find common ground and considers shifting values a fundamental part of transformation?

4. Treat everyone’s contributions as knowledge. Transformative change moves us toward futures dramatically different from today, which many people find difficult to imagine. Incorporating multiple forms of knowledge and expression like art can help catalyze imagination and creativity. Additionally, our study distinguished between the roles of researchers, artists, facilitators, and study participants, where facilitators and artists were considered observers to the study participants. Although this was efficient for submitting research ethics protocols and delegating tasks under tight time restrictions, it also resulted in lost opportunities to integrate art throughout the process and to allow for deeper reflection among different perspectives. This choice also implicitly deemed certain types of knowledge, such as that spoken by participants, more legitimate than other expressions of knowledge, such as visual art.

An agile futures practice asks: How do we define the role of participants, facilitators, artists, and others to legitimize multiple

forms and expressions of knowledge, and to encourage more meaningful contributions? How can we design study protocols to leverage these roles? What kind of art can make an effective contribution to the futures process, and how?

5. Contextualize the role of inspiration as an outcome. The impact of experimental futures methods is often difficult to measure. In our case, we focused on inspiring and motivating participants, trusting that this may translate to tangible action because of our alignment to an ongoing strategic planning process. However, it is unclear whether inspiration is a worthy outcome in all cases, as “feeling good” and feeling inspired doesn’t necessarily translate to action.

An agile futures practice asks: What is the primary outcome of this process and is it measurable? Is inspiration enough, and if not, how do we connect inspirational processes more directly to action?

## CONCLUSION

In this study, we aimed to create a transformative space that builds inspiration and shared commitment for climate action while exploring the unique inflection point created by the COVID-19 pandemic. To do so, we developed and facilitated a highly creative participatory futuring process with local climate actors in the Kitchener-Waterloo region. Because we needed to move quickly and accommodate pandemic-related constraints to explore the unique moment in time presented by a crisis, we also aimed to reflect upon our experiences to offer considerations for an agile futures practice in service of transformative change. Importantly, we underpinned our process with theories of transformation by emphasizing the importance of values and gratitude and by using frameworks that characterize transformation as emerging when seeds of promise in the present enter the mainstream during a window of opportunity created by a crisis.

Through a participatory workshop, we generated two distinct futures for the KW region that both connected to broader themes of community, care, and sustainability. In reflecting on our experience, we generated five considerations for agile futures practice in service of transformative change. We believe the guiding questions accompanied by each will help researchers and practitioners act more efficiently and reflexively to explore future crises as windows of opportunity for transformation.

*Responses to this article can be read online at:*  
<https://www.ecologyandsociety.org/issues/responses.php/13531>

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*None of the data are publicly available to protect participant confidentiality as stated in participant recruitment materials that received ethics clearance through a University of Waterloo Research Ethics Committee No. 42079.*

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## Appendix 1

### Pre-workshop survey questions

#### Section 1: Information and consent

#### Section 2: Dispatch from the future

We have been contacted by a journalist from the 2072! Please listen to this audio clip for more.

<https://drive.google.com/file/d/1MNbbV951mB8jLStmp7mvvDOvw4p0l6CV/view?usp=sharing>

#### Section 3: Value changes during the pandemic

For the following questions, choose from the list below. (If your value is not on the list, write down your value.)

|                        |                     |                     |
|------------------------|---------------------|---------------------|
| Accountability         | Excellence          | Perfection          |
| Accuracy               | Excitement          | Piety               |
| Achievement            | Expertise           | Positivity          |
| Adventurousness        | Exploration         | Practicality        |
| Altruism               | Expressiveness      | Preparedness        |
| Ambition               | Fairness            | Professionalism     |
| Assertiveness          | Faith               | Prudence            |
| Balance                | Family-orientedness | Quality-orientation |
| Being the best         | Fidelity            | Reliability         |
| Belonging              | Fitness             | Resourcefulness     |
| Boldness               | Fluency             | Restraint           |
| Calmness               | Focus               | Results-oriented    |
| Carefulness            | Freedom             | Rigor               |
| Challenge              | Fun                 | Security            |
| Cheerfulness           | Generosity          | Self-actualization  |
| Clear-mindedness       | Goodness            | Self-control        |
| Commitment             | Grace               | Selflessness        |
| Community              | Growth              | Self-reliance       |
| Compassion             | Happiness           | Sensitivity         |
| Competitiveness        | Hard Work           | Serenity            |
| Consistency            | Health              | Service             |
| Contentment            | Helping Society     | Shrewdness          |
| Continuous Improvement | Holiness            | Simplicity          |
| Contribution           | Honesty             | Soundness           |
| Control                | Honor               | Speed               |
| Cooperation            | Humility            | Spontaneity         |
| Correctness            | Independence        | Stability           |
| Courtesy               | Ingenuity           | Strategic           |
| Creativity             | Inner Harmony       | Strength            |
| Curiosity              | Inquisitiveness     | Structure           |
| Decisiveness           | Insightfulness      | Success             |
| Democraticness         | Intelligence        | Support             |
| Dependability          | Intellectual Status | Teamwork            |
| Determination          | Intuition           | Temperance          |

|               |                     |                 |
|---------------|---------------------|-----------------|
| Devoutness    | Joy                 | Thankfulness    |
| Diligence     | Justice             | Thoroughness    |
| Discipline    | Leadership          | Thoughtfulness  |
| Discretion    | Legacy              | Timeliness      |
| Diversity     | Love                | Tolerance       |
| Dynamism      | Loyalty             | Traditionalism  |
| Economy       | Making a difference | Trustworthiness |
| Effectiveness | Mastery             | Truth-seeking   |
| Efficiency    | Merit               | Understanding   |
| Elegance      | Obedience           | Uniqueness      |
| Empathy       | Openness            | Unity           |
| Enjoyment     | Order               | Usefulness      |
| Enthusiasm    | Originality         | Vision          |
| Equality      | Patriotism          | Vitality        |

From: mindtools.com ([https://www.mindtools.com/pages/article/newTED\\_85.htm](https://www.mindtools.com/pages/article/newTED_85.htm))

1. Which values have become more important to you during the COVID-19 pandemic? (Choose 3). Why? [*Paragraph response*]
2. Which values have become less important to you during the COVID-19 pandemic? (Choose 3). Why? [*Paragraph response*]

#### Section 4: Three Horizons

Please watch this optional 4 min webinar to help you understand the Three Horizons framework. We will use this during this survey and the virtual focus group.

<https://youtu.be/bWEOBPoBVd0>

See Figure 1: Three Horizons Framework (adapted from Sharpe et al. 2016)

3. What are your most important present concerns related to climate action? Put an asterisk\* beside those that have become more concerning to you during the COVID-19 pandemic. (Box 1 in Figure 1, aspects that you would like to see decline in the future)
4. What significant practical changes (max 3) have you made during the COVID-19 pandemic? These can be associated with transportation, energy consumption, family structure & relationships, food, recreation & leisure, work life, etc. Put an asterisk\* beside those changes would you like to keep in place in the future? (Box 3 in Figure 1, inspirational practice)
5. What is (are) the best thing(s) (e.g. a major achievement) that have happened in your community that can stand as an example for a climate-friendly future? (Box 3 in Figure 1, inspirational practice)

#### Section 5: Closing

A closing from our friends in 2072. Please listen to the audio clip!

[https://drive.google.com/file/d/1\\_7BhxyAkQjrKyTbIMjMawDAPw6nM1XnL/view?usp=sharing](https://drive.google.com/file/d/1_7BhxyAkQjrKyTbIMjMawDAPw6nM1XnL/view?usp=sharing)

## Appendix 2

Table 2.1: Detailed prompts for breakout groups

| Breakout   | Futures method                                  | Prompts  |
|--|---|--|
| <p>#1 Building a future world in which a “seed” of inspiration for climate action emerging during the COVID-19 pandemic becomes mainstream</p> | <p>Rapid future wheels (without the wheels)</p> | <p>What inspirational practice did you choose?</p>   |
|  |   | <p>How could (or has) that inspirational practice impact(ed) your life and your community: How does it work? What does it do? What does it look like?</p>  |
|  |   | <p>Think about a future with mass adoption of that inspirational practice: What are the implications? How does it affect people? What are the best and worst impacts - economic, social, environmental, political?</p>   |
|  |   | <p>Check imaginative strength: Have you imagined a future world that seems dramatically different from today? Have you exaggerated impacts to the point of absurdity?</p>  |
| <p>#2 Writing a story about a character navigating the future world from breakout #1</p>   | <p>Rapid science-fiction prototyping</p>        | <p>Your character is a sustainability policy maker in the Waterloo Region in 2050, living in the future you discussed in breakout group 1. The inspirational practice you discussed in breakout group 1 is taking off, and your character is responsible for driving it forward. Who are they? What do they care about?</p>                    |
|  |   | <p>In their career, your character has made a series of innovative strategic (policy) decisions (2 to 3) that helped lead to this future, where the inspirational practice has become mainstream. What were these decisions? What were the consequences - socially, environmentally, economically? How did they contribute to this future?</p> |
|  |   | <p>Now, your character faces at least 1 setback, such as a barrier from the 1st horizon (e.g., lack of provincial government funding for sustainability) or an external shock (e.g., an economic crisis or pandemic). Choose a setback. What are its implications? How does society in general respond?</p>                                    |
|  |   | <p>Your character overcomes the setback. How does your character lead their organization to overcome the setback? What does the character and broader society learn?</p>   |

## **Appendix 3**

### **Post-workshop survey questions**

Thank you for participating in the focus group! As part of the study we would like to invite you to complete this short follow-up survey. A reminder that we collected your email below to compare your responses before and after the focus group. These personal identifiers will be replaced with a coded identifier (i.e. Participant 1, 2, 3) to protect your confidentiality.

#### *Section 2: Workshop debrief*

1. What was the best part of the focus group? *[Paragraph response]*
2. What was the most challenging part of the focus group? *[Paragraph response]*
3. What did you learn during the focus group? *[Paragraph response]*

## Appendix 4

### Group A

#### *Inspirational practice or “seed”*

Group A built a future world in which greater support for local business and products emerging during the COVID-19 pandemic becomes mainstream. This inspirational practice drew from participants’ experiences with local business, food independence, and local agricultural products and practices (e.g., ‘three sisters’ of corn, squash, and beans), in addition to their desire for greater connection to place and community.

#### *Future world*

In this future world, people purchase everything at small businesses and only go to larger businesses when they cannot find a product locally. Since the COVID-19 pandemic, a cultural shift made sourcing locally a badge of honour. KW pursued urban agriculture at scale and became an agricultural hub for everyone within a day’s drive. Solutions from the past were also brought to scale, like a community fridge where people could donate extra perishable goods.

In the early 2020s, the COVID-19 pandemic recharged people’s desire to get out into the community. Networks of businesses helped move forward ideas of sustainability from an ethos of care rather than competitiveness. The community also committed to making it easy and convenient to source from small businesses. For example, small businesses could not offer everything in one place in the early 2020s. In response, an app was invented that people could use to plug in whatever they needed at the store, including everything from toilet paper to lettuce. A new service automatically sourced the desired products from local providers, which were delivered to people via solar powered drones. Additionally, local food box initiatives expanded to include products like toys, and local couriers began using electric cars or bikes for deliveries.

The community yearned for social gatherings like the Kitchener Market. In response, people started pre-ordering their groceries from multiple local vendors and picked them up at a community hub held one day per week. The hubs were accessible, so vehicles were mostly unneeded. This model broke down barriers between different social groups, bringing issues of privilege and inequality to the forefront.

As gas prices and technologies changed, local food became the only affordable option. While the region pursued aggressive climate mitigation, some degree of climate change occurred. KW began to experience more hot days and fewer freezing days, leading to a different relationship with food. For example, people used seasonally curated food menus and food boxes, community hubs became more popular, and people tried to reduce food and packaging waste.

#### *Science fiction story*

Lana is a young Haudenosaunee land defender and community leader. She has a personal mission to dedicate her work and life to stewarding the land. She feels a deep connection to the people who come after her. Everyone is her family. She is level-headed and proactively solves



problems. Her greatest fears are the collapse of agriculture, and of community members being left behind.

Lana helped bring small businesses and local products into the mainstream in the KW region. She led a shift to make land-use planning more inclusive and democratic, generating more green space and making the city less car-centric. To avoid gentrification and displacement of vulnerable people, she worked with regional leaders to even out home values and organized neighbourhoods to bring people with diverse income levels and backgrounds together. She also cultivated a platform for cooperative discussion about these unfolding changes.

Lana also fostered a weekly gathering, which became a community event for people to share a community meal or shop at a community market or hub. Everyone helped serve everyone. The event was the result of a social media campaign and became a forum for discussing environmental issues. Some people were not interested in participating in the community event because of the long tail of the pandemic; they were used to living virtually and fearful of interacting socially. Lana addressed this challenge by offering an option to tune into community events and local food shopping virtually. She also made local food available in a community fridge, so people could grab it anonymously and on their own time. Lana tried to be as inclusive as possible in her decision making by including people who were representative of the whole community.

#### **A story in the time of Lana**

"I hope you enjoy!" Said Lana, "Its my mom's old recipe." She heaped a portion of lasagna onto the plate of Paul Jessicasson. He said thanks, and that he can't wait for next week's community meal.

She looked out at the pathway underfoot, a slim line of tarmac, that was the last remnant of Ottawa Parkway, a once four lane highway that passed through this part of KW. She sighed as she saw the large community gathering, it burst the seams of the city-permitted area, but people were welcoming neighbors onto their porches, and into their gardens, so it turned out there was plenty of space.

A faint, high pitch whine approached from overhead, and Lana waved as the fridgebot descended to the kitchen to pickup and deliver today's meal. There were still quite a few folks that preferred to stay at home. And that's just fine — once size can't fit all.

As the next person in line approached her station, Lana smiled in the knowledge that this community gathering was happening in different places, and in different ways all over the city. She couldn't believe that it had already been eight years already, and the city was reclaiming land and was almost reaching its central targets. The Green Space Back Act had called for social equity and intact ecosystems as the central criteria for land-use planning and zoning, and against many odds it was happening.

As she looked down the community bikeway, Lana noted that a fair few of the houses that had, in weeks past, been resistant to these gatherings had actually opened their blinds today. Small progress — but progress nonetheless.

She heard the familiar laugh of a good friend, turned back to the queue, and went to serve another friend some lunch.

- Breakout group facilitator

## ***Group B***

### *Inspirational practice*

Group B built a future world in which greater attention to locally grown food emerging during the COVID-19 pandemic becomes mainstream, using a local food forest as an example of an initiative that could be scaled. A food forest is a way of planting edible plants that mimics natural ecosystems. This inspirational practice drew from participants' experiences growing their own vegetables and herbs and noticing others doing the same, partly driven by the need to stay home to avoid contracting COVID-19. The group also chose this initiative because it is connected to issues of social injustice. For example, participants discussed how farms in southern Ontario may exploit migrant labourers as they try to compete in global markets.

### *Future world*

In this future world, food forests are mainstream. The food forests began as community-based, volunteer-driven initiatives in the 2010s and 2020s, including 8 food forests started by the faith community in KW. Eventually, these initiatives scaled until everyone was expected to help maintain the forests and in turn enjoy the food they produce. The food forests created opportunities for cooperative learning and social inclusion as the community came together to harvest food, eat meals together, and store food for the winter months. As knowledge of sustainability broadened, the food forests began to challenge how people thought about conventional farming. New questions about agriculture brought together Indigenous and settler communities to share intergenerational and traditional food practices. The food forests seemed to satisfy a hunger many people felt to understand and grow their own food, and the initiatives scaled. As the food forests scaled, the community became concerned that products would become more expensive and thus less accessible to lower income people, like the community-support agriculture boxes of the 2010s and 2020s. In response, the community set up a subsidy program.

### *Science fiction story*

The Young Urban Farmers of Kitchener-Waterloo (YUFKW) is a group of five young people guided by a charter of principles related to food sovereignty, food security, and relationships. The group reflects the diversity of the KW community, representing various backgrounds and interests including farmers and policymakers. YUFKW were a driving force behind the food forests initiative.

To scale their initiative, YUFKW needed to find land to convert into food forests. Their priority was land return, because the KW region is on the Haldimand Tract, which was promised to the Six Nations of the Grand River in perpetuity. After a tipping point in Canadian federal policy, an independent Council for Reconciliation was established as per the Truth and Reconciliation Commission recommendations, which shifted the balance of power in the relationship between Indigenous and Canadian governance. Food sovereignty and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) became the law of the land. At this time, the father of a member of YUFKW – who was also a local farmer – worked alongside YUFKW to return large portions of land back to Indigenous communities. In addition, several churches that had closed over the course of the early 21<sup>st</sup> century returned land to Indigenous

communities or sold it to Indigenous developers. Because much of this land was fertile, the Indigenous communities had the option to convert the land to food forests. In the process, zoning policies changed to allow Indigenous architecture and green space to flourish.

YUFKW faced major setbacks in scaling the food forests initiative, including neighborhood opposition. At one point some neighborhoods litigated against them, but because of the new importance of the Council for Reconciliation and UNDRIP principles in Canadian governance, YUFKW won their day in court and set a precedent for all young farmer groups across the country.

## Appendix 5

Table 5.1: All relevant quotes from debrief

| Theme                         | Quotes  |
|-------------------------------|---|
| Enjoyable and fun             | <p><i>“I think the science fiction aspect of it made it more fun. I love talking about this stuff in any form, but this just added another layer of fun to it... Especially around a topic like this. Talking about climate change in the middle of a pandemic is not the most fun thing you can do and it can get overwhelming and very sad very quickly. It was actually fun the whole time to talk about this stuff and imagine the future.”</i></p> <p><i>“This was really fun. I think my favorite part was developing the character of Lana. It was a fun creative way to get into the content and really try to think through how one person can take action.”</i></p> <p><i>“I think given an hour we could have written a screenplay for a feature length action film actually, based on the way we were going.”</i></p> <p><i>“It was so much fun and inspiring to see what creative ideas we all came up with to create more community and help the environment.”</i></p>  |
| Finding opportunity in crisis | <p><i>“One way that I feel more prepared [to use crisis as a window of opportunity for climate action] is to have an example and see how it’s done around storytelling about the future. Because storytelling is such a powerful way to kickstart our imagination and communicate our ideas... I feel better prepared just to have been part of this process and think okay, this is another tool that we can use to imagine a better future for our community, so thank you.”</i></p> <p><i>“I definitely feel more hopeful coming out of this. I found this a really refreshing way to come out of the week and recenter and think we can do this... and it is okay to think pie in the sky because the whole point... 70 years ago, we never thought we’d be doing this call that we’re on right now, most people couldn’t fathom that. So, in another 50 years or 70 years ahead of us, there are going to be so many opportunities to expand that we can’t even dream of right now.”</i></p> <p><i>[I learned] affirmation of the value of storytelling [and the] value of a futuring exercise to break the hold of the "overwhelmingness" of the climate crisis on our minds and imaginations... And how hard it is to let go of thinking of the future along the lines of what we know in the present. With more time, we could challenge each other in our focus group on assumptions rooted in the present and possibly get to the point when we would be able to dig a little deeper liberating those assumptions.”</i></p> |

|                   |   |
|-------------------|---|
|                   | <p><i>“[the best part was] clutter-free thinking: Using our imaginations to think about an ideal future, regardless of the challenges and obstacles that would stand in the way.”</i></p>   |
| <p>Challenges</p> | <p><i>“We entered the space as strangers... And so, you’re forming and norming and storming in the span of about 20 minutes online. So that’s, because we’re people and relational, so it requires creating an atmosphere of trust and I think you did that through your initial remarks. But you know I still think that’s kind of the challenging part. How to do this and do this quickly with people you don’t really know. But it turned out really well.”</i></p> <p><i>“The challenging part was trying to develop this narrative with a short time frame. We probably could have spent another hour just rolling off different ideas and building up this storyline, but also just thinking through the practical challenges that would come up in this story and realizing there are a lot of challenges that would get in the way of this ideal future, and how would a community let alone one person address those. It’s a daunting task.”</i></p> <p><i>“[the most challenging part was] working through the activities in the time frame, and also deciding on a future we all were excited about, as a group.”</i></p> <p><i>“A lot of people mentioned the time constraints, but I think it was the perfect amount of time. I think it created a condensed version, and we got to the point more efficiently. If we were talking all day, I think the data and creativity would have become diluted.”</i></p> |