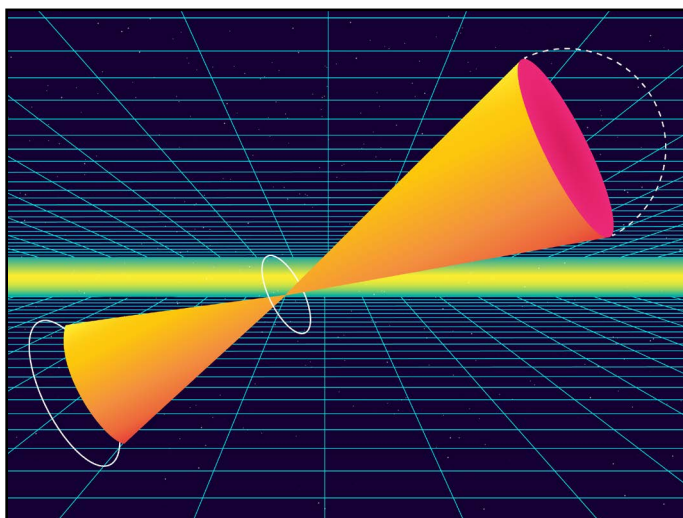

Applied Sci-Fi Project
Event #3 Summary and Report

Science Fictional Scenarios and Strategic Foresight

December 8, 2022

Video of public event: <https://youtu.be/2mDM33OXm1g>



The Applied Sci-Fi Project at Arizona State University's Center for Science and the Imagination is an event series and research project that brings together science fiction writers, futurists, scholars, and technologists to survey how science fiction narratives can shape the development of real-world technologies.

In this third panel in the series, held on December 8, 2022, we explore the past, present, and future of strategic foresight practice, map the similarities and differences between strategic foresight and science fiction, and consider how to leverage both fields to help us collaboratively design a better tomorrow.

Our Speakers

Jane McGonigal (@avantgame) is the New York Times bestselling author of *Reality is Broken*, *SuperBetter*, and *Imaginable: How to See the Future Coming and Feel Ready for Anything, Even Things That Seem Impossible Today*. She directs social

simulations, Future Scenario Club, Storytime for Futurists, monthly signals of hope scavenger hunts, and more futures fun at Institute for the Future in Palo Alto, California.

Madeline Ashby (@madelineashby) is a science fiction writer, futurist, speaker, teacher, and immigrant living in Toronto. She has worked with Intel Labs, the Institute for the Future, SciFutures, Nesta, Data & Society, The Atlantic Council, the Center for Science and the Imagination, Changeist, and others. She is the author of the Machine Dynasty series, and her novel *Company Town* was a Canada Reads finalist. She is also a contributor to *How To Future: Leading and Sense-making in an Age of Hyperchange*, with Scott Smith.

Steven Weber (@bw_strat) is a partner at Breakwater Strategy and a professor at the University of California, Berkeley. He focuses on the political economy of knowledge-intensive industries, with special attention to information technology, finance, health care, and global political economy issues relating to competitiveness. He is a frequent contributor to scholarly and public policy debates on international politics and U.S. foreign policy. One of the world's most expert practitioners of scenario planning, Weber has worked with more than 50 companies and organizations to develop this discipline as a strategy planning tool in for-profit, non-profit, and government settings.

Leah Zaidi (@Leah_Zaidi) is a strategic worldbuilding and foresight expert, and executive director at Multiverse Design. She has worked with prestigious organizations such as the United Nations, Stanford University, and various Fortune 100 companies. Her research on strategic worldbuilding has won awards

and is taught in universities around the world. As a strategist, she has tackled complex challenges such as the futures of democracy, refugee crises, and the metaverse. Leah is an advisor to the foresight divisions of Canada and Finland. She has also done developmental editing on five published novels.

Kevin Bankston (@kevinbankston) is a fellow at ASU's Center for Science and the Imagination, where he researches the relationship between science fiction and real-world innovation. Kevin is also an accomplished executive leader in the arena of technology law and policy, having spent nearly 20 years working in the public interest sector as an attorney and advocate at organizations like the American Civil Liberties Union, the Electronic Frontier Foundation, the Center for Democracy & Technology, and New America's Open Technology Institute. He is now AI Policy Director at Meta, developing policies and processes for ensuring responsible AI development.

Five Powerful Insights and Examples

One contributor argued that futures practice is not about making predictions or staking a claim on what is going to happen in the future, but instead to generate a range of possible futures – some of them more plausible, some less likely to materialize – that an organization can use to be more robustly prepared for change. Ultimately, this contributor noted, a key goal is to get to previously unimaginable scenarios or combinations of variables that groups otherwise wouldn't have contemplated as possibilities.

One contributor likened the process of generating a “science fiction prototype” short fiction piece from a future scenario to adding humans to an architectural drawing: encouraging readers and decision-makers to imagine the thoughts, emotions, and struggles of the people who actually inhabit these possible futures.

One contributor described how foresight work can be a “therapeutic practice” for an organization, either one that has been through a difficult series of events or one in which the employees are feeling burned out from social or political. The process of foresight, of imagining possible futures, allows the organization to build hope and even help to retain talent, by demonstrating that employees have a voice in the future of the organization, and the larger societal outcomes that their work is supporting.

In the public event, the panelists discussed how scenarios might be useful to raise the specter

of failure within companies or organizations. If an employee floats the possibility of a negative outcome or downturn for the firm within a typical workday context, they might be perceived as excessively negative or “not a team player.” Scenario exercises, and the conversations around them, create a potentially safer space to entertain and plan for negative outcomes. The panelists mentioned an approach often used by the futurist Brian David Johnson of starting scenario consultations by encouraging thinking about worst-case scenarios, getting those “on the table,” and then letting those discussions about failure and unintended consequences inform conversations about more hopeful visions of the firm or organization's future work.

In the workshop, participants discussed two emerging frameworks for thinking about possible futures outside of the utopia/dystopia binary, which practitioners often find limiting. One is *protopia* (initially coined by Kevin Kelly in 2011), which emphasizes hopeful thinking but focuses on the notion that ethical and justice-oriented factors are as essential as technological change, and the other is *polytopia*, which emphasizes tracing processes of change rather than detailing end-state visions (for example, focusing on how the universe of Star Trek built the Federation, rather than the features of the Federation as a fairly steady state of galactic governance).

Summary and Key Takeaways

This event focused on the intersection of science fiction and the fields of foresight, futures, and business intelligence. A panel of practitioners in the realms of foresight, scenario planning, and science fiction addressed the role of narrative approaches to these industries, beginning with introductory remarks from a notable expert in the field, Jane McGonigal, author of the new book “Imaginable” and director game research and development at the Institute for the Future.

Science fiction can be used as an intentional tool for innovation, strategic planning, and creating alternative futures. Harnessing the sci-fi feedback loop in this way requires close attention to the inclusion of diverse perspectives and imagining the world from different viewpoints in order to gain useful insights for decision-making and planning.

Panelists also highlighted the concept of urgent optimism, which involves nurturing psychological and social strengths to develop a mindset focused

on mental flexibility, realistic hope, and future power. This mindset aims to empower individuals to actively shape the future and take purposeful, long-term approaches to their lives, communities, and organizations.

Finally, the panel defined strategic foresight as a practice area that combines disciplined imagination with field-based knowledge and know-how, and that also emphasizes approaching the future as a possibility space with multiple potential pathways and outcomes. There are significant challenges inherent in getting organizations to engage in foresight work, such as risk aversion, corporate politics, and fear associated with job security.

Foresight vs. Design Fiction

Foresight and design fiction are related concepts but differ in their focus and application:

1. Foresight:

- Foresight involves the systematic exploration of potential futures to inform present decisions and actions. It aims to identify emerging trends, discontinuities, and potential opportunities and threats, allowing organizations to anticipate and prepare for various future scenarios.
- It is a strategic planning tool that emphasizes disciplined imagination, future literacy, systems thinking, and scenario planning to envision and understand diverse and plausible futures.
- Foresight work often involves developing future scenarios, evaluating potential impacts, and formulating strategies and action plans to navigate and shape the future.

2. Design Fiction:

- Design fiction is a creative and speculative approach that uses storytelling and prototyping to explore and communicate possible future scenarios and technological innovations.
- It often involves the creation of fictional narratives, artifacts, or prototypes that illustrate and provoke discussions about potential future technologies, products, or societal changes.
- Design fiction can serve as a tool for stimulating imagination, exploring alternative futures, and engaging stakeholders in

conversations about the implications of emerging technologies and societal trends.

In summary, while foresight focuses on strategic exploration and planning for a range of potential futures, often in industry spaces, design fiction is more focused on using creative storytelling and prototyping to envision and communicate specific future scenarios and technological innovations, often in research and development spaces. Both approaches contribute to understanding and preparing for the complexities of the future, albeit with different emphases and methods.

Benefits of Foresight Work

The event discussed several benefits of engaging in foresight work, as highlighted by the participants:

1. **Developing a mindset of “urgent optimism”:** Foresight work can help individuals and organizations develop a mindset characterized by mental flexibility, realistic hope, and future power. This mindset nurtures the belief that the future can be shaped, encourages attention to positive signals of change, and fosters a sense of agency in determining the future.
2. **Envisioning diverse and plausible futures:** Foresight work allows for the exploration of a range of different possible futures, some of which may be more plausible and others that may be wildly different. This process enables organizations to plan and prepare for various potential scenarios, maximizing their ability to adapt and succeed in the face of uncertainty.
3. **Strengthening futures literacy and imagination:** Engaging in foresight work exercises and stretches an organization’s futures literacy and imagination muscles. It helps individuals and teams to think beyond short-termism and embrace a purposeful, long-term approach to decision-making and planning.
4. **Therapeutic practice for the organization:** Foresight work can serve as a therapeutic practice for organizations, particularly in situations where unintended consequences or impacts have occurred, or when employees are experiencing burnout due to external events. It can help build hope for the future, retain talent, and give individuals at all levels of the organization a sense of agency in shaping their future work environment.
5. **Anticipating key transformations:** At its core, foresight work helps organizations anticipate

and navigate transformational change. By preparing for a range of possible outcomes, entities that engage in foresight practices can react more quickly and effectively to change.

Challenges of Practicing Foresight

There are several challenges in practicing foresight. One key challenge is getting organizations to engage in foresight work, as many organizations are risk-averse and may not see the value in investing in foresight. Additionally, corporate politics and fear associated with job security can make it difficult to implement foresight initiatives. Organizations may be unwilling to contemplate change or to invest in the preparations that would allow them to better navigate a different future.

Another challenge is the difficulty in measuring the return on investment (ROI) of foresight work. While the long-term benefits of foresight work may be clear, it can be challenging to demonstrate the immediate ROI of such initiatives.

Finally, there is a challenge in balancing the need for disciplined imagination with the need for practical action. While imagining a range of possible futures is important, it is also crucial to identify actionable steps that can be taken to prepare for those futures. Finding the right balance between imagination and action can be a challenge in foresight work.

Key Terms

The panelists mentioned several key terms related to foresight work:

1. **Strategic Foresight:** Strategic foresight involves the systematic exploration of potential futures to inform present decisions and actions. It aims to identify emerging trends, discontinuities, and potential opportunities and threats, allowing organizations to anticipate and prepare for various future scenarios.
2. **Disciplined Imagination:** Disciplined imagination refers to the structured and intentional use of creativity and imagination within the context of strategic foresight. It involves envisioning diverse and plausible futures while maintaining a disciplined approach to exploring and understanding potential changes and disruptions.
3. **Futures Literacy:** Futures literacy encompasses individual and organizational abilities to understand, interpret, and navigate the complexities of the future. It involves developing

the skills and mindset necessary to engage with uncertainty, anticipate change, and make informed decisions in an evolving landscape.

4. **Scenario Thinking:** Scenario thinking is a method used in strategic foresight to develop and explore alternative future scenarios. It involves creating narratives or stories that describe a range of potential future states based on different sets of assumptions, helping organizations understand the implications of various possible outcomes.
5. **Urgent Optimism:** Urgent optimism represents a mindset characterized by a sense of realistic hope, mental flexibility, and proactive engagement with the future. It involves embracing a positive and purposeful approach to shaping the future, even in the face of uncertainty and challenges.

Steps in Doing Foresight Work

The panelists provided some general steps that can be taken in doing foresight work. Here are some of the steps discussed in the document:

1. **Identify the scope and focus of the foresight work:** This involves defining the purpose and objectives of the foresight initiative, as well as identifying the key stakeholders and potential future scenarios to be explored.
2. **Conduct research and analysis:** This step involves gathering and analyzing data and information related to the focus of the foresight work. This may include reviewing trends and drivers of change, conducting environmental scans, and engaging with experts and stakeholders.
3. **Develop future scenarios:** Based on the research and analysis, future scenarios can be developed that describe potential future states based on different sets of assumptions. These scenarios should be plausible and diverse, allowing for a range of potential outcomes to be explored. They are generally developed according to an established structure or schema (e.g. Three Horizons or Four Futures models, or the “four quadrants” approach utilized by the Global Business Network) intended to focalize the impact of a few key variables.
4. **Evaluate scenarios:** Once the scenarios have been developed, they can be evaluated and prioritized based on their likelihood and potential impact. This can help organizations identify the most important scenarios to prepare for and prioritize their resources accordingly.

5. **Develop strategies and action plans:** Based on the evaluations, strategies and action plans can be developed to prepare for and respond to potential future developments. These plans should be flexible and adaptable, allowing for adjustments as new information and developments emerge.
6. **Monitor and evaluate progress:** Finally, it is important to monitor and evaluate progress in implementing the strategies and action plans. This can help organizations identify areas for improvement and adjust their approach as needed.

These steps provide a general framework for conducting foresight work, but the specific approach may vary depending on the context and objectives of the initiative.

Workshop

After the public event, we had a private workshop with 19 practitioners/consultants, experts, and science fiction writers that delved into this topic in more detail. Findings from the workshop are being incorporated into extended synthesis documents that will be released in the coming year.

Editorial Note

An initial draft of this summary was generated using [ChatPDF](#) from the transcript of the public event, and then significantly edited by the Applied Sci-Fi project team.