Conversation with Allison Duettmann
Ashley Hopkinson
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Ashley Hopkinson: Can you share a little bit of your background and tell me about yourself, Foresight and your role with the organization?

Allison Duettmann: Since I can remember, I've had a pretty big love for life really. My first thought was kind of that, and then the second thought was that I was pretty sad, just that life will end and I will eventually have to part with my family, friends with all the wonderful experiences to be had and so forth. I was early on really into longevity and life extension. I think since I can remember really. It's strange in hindsight. I grew up in Hamburg, in Germany, and so that was a pretty alien wish to have there, especially as a young person.

I went into philosophy first, education-wise mostly focused on existentialism and how to create meaning in a finite life. Then I discovered more future-facing philosophy. Foresight had at that point, had been around since 1986 already, so longer than I have existed. But it was a really optimistic organization that had a positive approach to the long-term future while also being deeply rooted in science and technology and not just PollyAnna techno optimism, but really taking risks seriously and trying to find a path that is inclusive and adaptable. I joined 10 years ago, I started as an intern and now I have been running it for five years or so.

Ashley Hopkinson: Now, you're the big boss.

Allison Duettmann: Yes, the big boss.

Ashley Hopkinson: As the person leading a research organization, what do you think makes Foresight distinctive in this field? Is it that it's science, technology and thinking more solutions-based? How would you describe it?

Allison Duettmann: In 1986 there were just very few future-oriented organizations out there, especially those that had a scientific community. There were a few philosophical organizations. This one, I think, was so attractive to me because it's all scientists and technologists in our community. But what they share is this interest in the long-term implications of their work. That's not something that they can usually do at university, because we have relatively tight funding constraints in departments. And it's not something that they can usually do in the private sector. VCs have a relatively short time horizon.

So we try to create these third spaces where they can come together and work on positive, long-term applications of that technology. We have different technological tracks and longevity biotechnology and molecular nanotechnology, neurotechnology, AI, and space. Within these tracks, we each have a fellowship, prizes, seminars, workshops, basically the whole little suite of tools to establish an early ecosystem in the field.

Over time, that community has definitely grown. What makes us unique is definitely not that we're the best in each one of these areas, if you just look at the field per se. But we try to go in different technological areas where it's a little bit too sci-fi, too ambitious, perhaps too early stage, too interdisciplinary for legacy institutions to support that work.

Ashley Hopkinson: I like what you said about creating that third space because legacy organizations often have a structure in place that can make it hard to be flexible. Who would you say largely benefits from the work of Foresight? Is it a trickle-down effect? First the technologists and the scientists and then community. How would you describe it?

Allison Duettmann: That's a good question. There are different constituents. One is immediately the people that we either fund through our grants program, for example, or the fellows that we support through mostly soft support by connecting them with different mentors in their field and having a soft core structure. I just had a fellowship meeting today with our fellows, a career counseling session. The prizes are individual science and technology talent that we're trying to support. So they stand to benefit.

Then we have a big public education lens as well of trying to onboard more people and making basically increasing access to these fields. It's oftentimes really difficult to even know where to start

with these areas. There's not really a solid industry built around some of them. And so you have to read a few books, then you know a little bit (about) what people think, then you have to contact them or cold email them, and it's just kind of a nightmare to get started. And so we are building these technology trees to map different areas from where they currently are to long-term goals in the field, including different capabilities along the way, and different actors and open challenges that people can then sign up for.

We're trying to create these onboarding documents. There's another [website](#) existentialhope.com that we launched to onboard people to positive futures. So we're trying to do a little bit of that outreach work as well to just make it a bit more palatable to the general public to get involved and to feel like they have some skin in the game in the long-term future.

Society-wide impact, we're not quite there yet, but we are trying to support individual folks and trying to increase the funnel.

Ashley Hopkinson: Can you tell me more about tech trees? Was that born out of challenge, like a challenge of visibility? How do we get these ideas out there around longevity? How did the idea come about?

Allison Duettmann: I wish I could say I invented a tech tree. Gamers know them from games like CIV and in this game of civilization, you basically build this tree out that then helps you unlock new states in the game. You have to collect these resources that you can then map on this technology tree that helps the civilization grow.

It's kind of similar. Basically, just trying to think a little bit more long-term about different puzzle pieces that have to come into place that may slot in at different times for a few to be successful. We can already see, let's say nano-technology, progress will occur roughly along this path. We have some more simulation tools that may slot in a little later.

So you can sometimes map at least the cadence of different developments to an extent that it's useful to map them in relationship to each other. Mostly because many people in the field, they don't always know. People outside of the field, I think for them it's really hard to comprehend what's going on, but even people within the field often don't know what their colleagues are working on. They barely have enough time to stay up to date on research that's immediately relevant to them, let alone on what other labs are doing that could possibly be interesting in terms of tools.

Tech tree is basically this easily graspable, AI queryable tool. So there's a chatbot interface to it, an overview of a field and some rough ideas of where different technologies could slot in (and) why they're useful for the long-term goals.

Ashley Hopkinson: Is there anything else that you would say specifically helped to make a change or influence with taking the work that you do and helping a broader audience to tap into it and understand it? Does anything else come to mind?

Allison Duettmann: This existential website is another one where we basically just collect resources in different technological fields that explain a field from a positive lens. It's about the opportunities in the field rather than just about why technology may destroy the world. We focus on what this technology could do if it was developed in a beneficial way. The idea is not to just, "Oh, we're just going to reach a beautiful future no matter what," but it's more like, how to get people thinking about the future that they want rather than about the one that they don't want. To get a little bit more action potential into those directions.

It's important to think about risks, and we do that a lot, but I think we think too little about what we want if we don't kill ourselves through technological progress. So it's onboarding people to distinctively positive futures, including organizations so they can join if they're more interested.

Ashley Hopkinson: How exactly did the Existential Hope Project come about?

Allison Duettmann: Well, again, I wish I could say that I invented the term, but it was from a paper from Future of Humanity Institute from I think Toby Ord and Owen Cotton-Barratt, and they wrote basically about that. We think about existential risk and have, at least in our communities, have a clear definition of it, but we don't really think about the opposite, the upside risk, the expected value of the universe if we don't destroy ourselves. And then different paths into that future. Just like we think about risk prevention, or at least in my field like AI and AI safety, we should also think about what are paths that could make distinctively positive futures more likely? That paper was really inspiring. I had already gobbled up a lot of positive readings about science and tech anyway, so I basically created this page in my free time.

I was already at Foresight, but it started out as a collection of Google Docs on a website, and then somehow people started adding to the Google Docs. I literally had Google Docs linked from a website online, and people just could really edit them on the internet. I was like, "This could work." And then after a while, it kind of started taking off and people were really interested just in the concept. We got some funding for it to make the website actually proper. And so now we have a podcast on the

website. We have a world building course that is currently ongoing where we invite people in STEM to envision positive worlds for different science and technology areas. Again, as an onboarding and educational outreach to make these worlds a little bit more palatable than we usually describe in these different sections.

Ashley Hopkinson: I love that you have the tech trees and then you have this, and I noticed that there was artwork associated with it, so it was almost like a visualization of the person's vision of a future. It was really futuristic. From your perspective, how do science and research tie into economics, particularly the kind of science that might be aiming to offer a solution to a social problem? So biomedical science, for example.

Allison Duettmann: That's a big question, and I think it somewhat depends on the different fields. Oftentimes people have this perception, which I think is somewhat of a misperception about longevity, that it's like for billionaires only or this perception of it being a highly elitist field. But I think ultimately, if we do it right, and I think that there's a ton of companies and other research projects out there right now that are really trying to democratize the field, then it just means better and cheaper and much more successful healthcare at an earlier stage. It means tackling diseases at the root, and it means on the backend also possibly being able to regenerate and rejuvenate some of the frailty that we have at that point.

Andrew Scott had this, he's an economist at London Business School, and I think he recently wrote a book basically on calculating QALYs (quality-adjusted life years). It means how many quality adjusted life years can intervention give you, and that's often used in healthcare economic contexts. He just tried to put a number on how much these longevity interventions could save governments if they were actually applied properly.

And so I think that from an economic perspective, really focusing on those, even through insurances or something. It actually has the potential to really drastically uplift lots of people, because ultimately the tiny lead will always get great treatment[….] But the general masses, that's really who could ultimately stand to benefit a lot from these life extension or longevity or aging or anti-aging disease technologies if they're rolled out correctly.

Then for molecular nanotechnology…this is a little bit further out, but it would basically allow us to produce at a much more local level. And there's this cipher book, Diamond Age, and it basically means that rather than buying these really very expensively designed, wastefully designed and manufactured products, we can maybe do something like 3D printing in our own homes. That's obviously a little further out, but it's really trying to give people the power again, to produce and design and create

things that they would want. And so on a physical abundance level for each and every individual, that could be a big economic opportunity here as well. People have calculated the possible economic benefit of that on the economy at large.

And I feel like rolling out more accessible, even just noninvasive BCIs, ultrasound focused BCIs, and even better studies on how to deal with mental health through brain interfaces or other interventions would be game changing for much of the population.

For each technological area, we can tell a little bit of a different story. But I think overall, it ultimately depends on how they're being produced and how they're being rolled out. And I do get that there's safety concerns about all of them. I don't just mean, let's push for them as fast as possible, but I think they could alleviate a lot of the existing pain points that we really feel in society right now.

Ashley Hopkinson: What would you say is the greatest challenge in leading a research organization and the greatest challenge in the science and technology field at the moment?

Allison Duettmann: So many. I think one I is, especially if it's interdisciplinary, it's hard for different researchers to talk to each other. And it's really hard to get funding for stuff because most of the funding pots are dedicated to specific small problems or in academia, not just to problems, but often to a department that's already doing something. You can make incremental progress on something, but it's not really dedicated to long-term goals that may require interdisciplinary collaborations. I think the funding is kind of upside down. It's basically just looking at what we currently have, how we can do a little bit better, but not what are goals that we want, and then what are the different collaborations that need to happen to get there?

We are also really interested in funding more work that is not within the USA. So our AI safety grant program, for example, really focuses on giving people outside of the U.S. funding. [This is] with the hypothesis that the U.S. produces relatively great AI and AI safety work, but perhaps is a little bit saturated and there's tons of other communities that could be really brought into the fold if we just did a little bit more work on outreach. And so we're trying to get better at just increasing the funnel internationally speaking or geographically speaking.

Ashley Hopkinson: Reimagining economics is a bold concept in and of itself, but you lead a research organization so you understand bold. That said, is there something that has come to the surface that you're excited about because it may have long-term impact of some kind?

Allison Duettmann: There's a lot of neurotechnology stuff I think that I briefly glossed over that I think is really interesting, that's really kicking off right now. Tons of really interesting work on brain

computer interfaces that have just incredible potential and that are already working. And then on a totally different note, there's some really interesting work on biological computing. I think that just has some possibly strange ethical implications. So there's already a few, like Michael Levin in his lab at Tufts, he was able to grow these bots that basically are cell clusters that he primed to have different cell clusters emerge based on algorithm that he had created before, and they kind of behave as their own little organisms, and he called them Xenobots.

What's interesting is what it tells us about possible collective intelligence. [...] also his entire work on bioelectricity has some really interesting implications for regeneration, which has great implications for longevity. So I think if there's one person that I'm continuously stumped by, it's like Michael Levin. Whenever I look, he's done something else that's crazy, which has radical implications. We're mostly really, really positive. And so yeah, really exciting work coming out of his lab.

Allison Duettmann: Thanks a lot. It was really fun to talk to you.

Ashley Hopkinson: Thank you, I appreciate all your insights. Take care!

Ashley Hopkinson is an award-winning journalist, newsroom entrepreneur and leader dedicated to excellent storytelling and mission-driven media. She currently manages the Solutions Insights Lab, an initiative of the Solutions Journalism Network. She is based in New Orleans, Louisiana.

* This conversation has been edited and condensed.