DeSci Professional Society/Consortium/DAO (Metascience DAO)

Purpose:

The DeSci community needs to come together to systematically test its numerous novel technical and governance structures in a way that would be respectable to the larger scientific community. If it does not, the DeSci movement's credibility will be compromised due to lack of data, and its long-term impact will be dramatically reduced.

Large corporate entities in academia will outlive this bear market. If this bear market lasts another year or two, DeSci will have spent the last 2+ years developing technology for the "enemy" wholesale– unless we figure out how to band together.

This is a great time to embark on this endeavor: other movements, like Open Science and Metascience, are trying to fix the integrity of science and extend the boundaries of the current instantiation of the scientific method, complimentary goals to those of DeSci. This means that there will be a great deal of interest in and support for a professional society to create, test and refine discovery/truth-seeking infrastructures for the 21st century.

Finally, The UN is very supportive of Open Science. During their 3rd Global Open Science Conference in Feb 2023, they made a healthier Open Science a prerequisite to their Sustainable Development Goals (SDG). I suggest that we form a Professional Society and treat it in the way we would like to see Professional Societies behave in the future. DeSci already has many answers the UN is just starting to ask. This could be a good time to get government funding and not fully depend on VC.

Background:

There are other movements that are not as technologically focused as DeSci, such as the aforementioned Open Science and Metascience. Open Science is attempting to re-decentralize/democratize Science' knowledge outputs and make all parts of the research lifecycle transparent. Metascience aims to discover practices and philosophies that increase the depth-of-focus of the lens of Science as shown in Figure 1 below.

Softer sciences are "soft" because science, as a process, is not adequate/currently adequate to address the complexities of those fields (See Figure 1). How do we extend the process of science or invent complementary processes that have broader reaches into other fields - falsification in complexity. DeSci tooling can help improve the integrity of the science as we know it and play with the form and funding of science to create better discovery/truth economies (quadrulemma of science: funding pool, carrying capacity, scale, impact).

DeSci, Metascience, and Open Science all aim to improve the state of Science by building platforms, processes, funding opportunities, incentives that:

- Improve the cultural standards of truth seeking and dissemination.
- Increase probability and efficacy of discovering of errors and foul play.
- Expand tooling to make better use of existing knowledge assets.
- Elucidate the historiography of science.
- Fixes the replication, affordability, and functionality crises.
- Maximize productive impact.

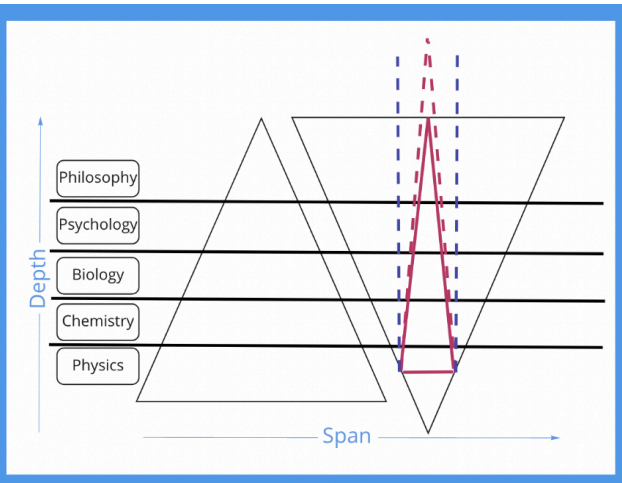

Figure 1: Depth = complexity of "units" that make up the other layers (physics:particles, biology: cells etc.) ie. Cells are more complex than atoms yet are of atoms.
Span = Shear number ie. There are more atoms than cells.
Left Triangle = Span Triangle
Right Triangle = Depth Triangle
Red Triangle = Scientific Method
The dotted lines: ways we can extend science to create more affect in "softer" sciences.

Interpretation: Science is a process maximized for physics. Other fields - ie. chemistry, biology, psychology - are more complex to properly study than Science can currently offer. We need to extend the depth-of-field of Science / find complementary processes that better explore these other fields

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Implementation:

When we think about knowledge, we generally think about a source one could point to or a point that pierces the veil (breakthrough). Though these moments are quite powerful, science discourse is more like an intellectual mycelial network that creates intellectual soil and the conditions for any number of plants to spring from while continuing to provide nutrients and communication between plants once they take root.

How do we create the mycelial network for the domain of ideas?

As a professional society to will create, test and refine discovery/truth-seeking infrastructures for the 21st century:

To test and refine our discovery/truth-seeking infrastructures for the 21st century, we need 1) to create a culture of broader collaboration and 2) governance sandboxes to see how people will actually use different systems not just simulations.

Crafting adequate governance sandboxes will require extensive research. I propose we start simple and run an experiment in collaboration, we are going to collect questions, a list of people to interview to plot out the landscape and to chart a way forward.

Funding
The NSF's National I-Corp program offers $50k for scientists to validate their ideas before committing to them commercially. We are proposing that we use this money as a means for our system to DeSci community as a whole to validate some of its ideas and to create a repository of interviews and a thriving community that we can send our eventual "customers" to. This can be a prerequisite for the Small Business Innovation Research and Small Business Technology Transfer (SBIR and STTR) program or Partnerships for Innovation (PFI). These programs translate research to deep tech companies that will require a for-profit entity. (Unfortunately, we did not qualify for the the I-Corps Program since I was the one that was applying.

The NSF's Pathways to Enable Open Source Ecosystems (POSE) [applied]
The NSF's Accelerating Research through International Network-to-Network Collaborations (AccelNet) [processing]

We can also set up a highly curated event with Decentralized Research Collective (DRC).

These can be a precursor to presenting the DeSci community to at the UN or the larger scientific community in a couple of years.

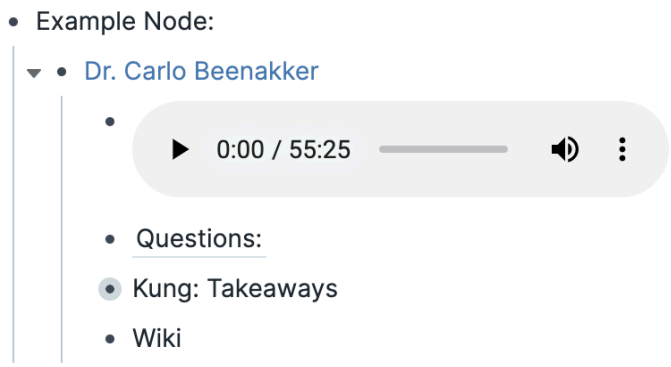
Attempts:

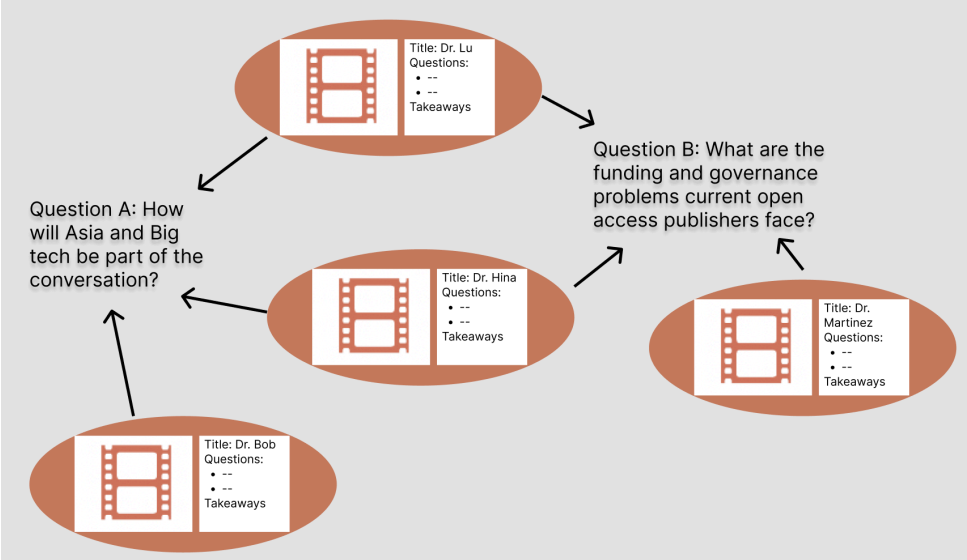
- Applied to all, got rejected by all. No funding.
- DRC might still be an avenue.

NSF National I-Corp Program: 100x interviews

Metascience Web | Miro

Example Structure:





NSF Pathways to Open-Source Ecosystems (POSE) Grant:

NSF AccelNet Grant

Values and Goals

- **Goals:** Build the DeSci Professional Society (Tech-forward Metascience Professional Society) that can be a model for professional societies of the future.
    - **Output**: evidence-based insights and products as a result of a larger-scale coordination and cooperation (part of the claims of our products).
    - **Interdisciplinary**: This is a soci-technical field at the intersection of economics, psychology, ethnography, philosophy, AI, cryptography, library science, IT, political science, law. How many people in these fields are we engaging?
    - **Courage**: Everyone has PTSD regarding getting scooped and everyone seems to be getting VC funding, antithetical to the movement (long-range no direct promise ROI).
    - **Healthy Knowledge Commons**: Universities and Publishers have become Big Business that have a monopoly on academic prestige and have adapted an attention economy business model to the knowledge economy of Science. Though the Universities and Publishers have done great work, the current model is unsustainable and has been actively hurting the knowledge commons.

Collaboration Tools:

1. DeSci/MetaSci Consortium - Miro
2. DeSci/MetaSci Consortium - Clickup
3. DeSci/MetaSci Consortium - Wiki
4. DeSci/MetaSci Consortium - GitHub

5. DeSci/MetaSci Consortium - RoamGarden
6. DeSci/MetaSci Consortium Finances - Google Sheets

APPENDIX:

A: Outtakes

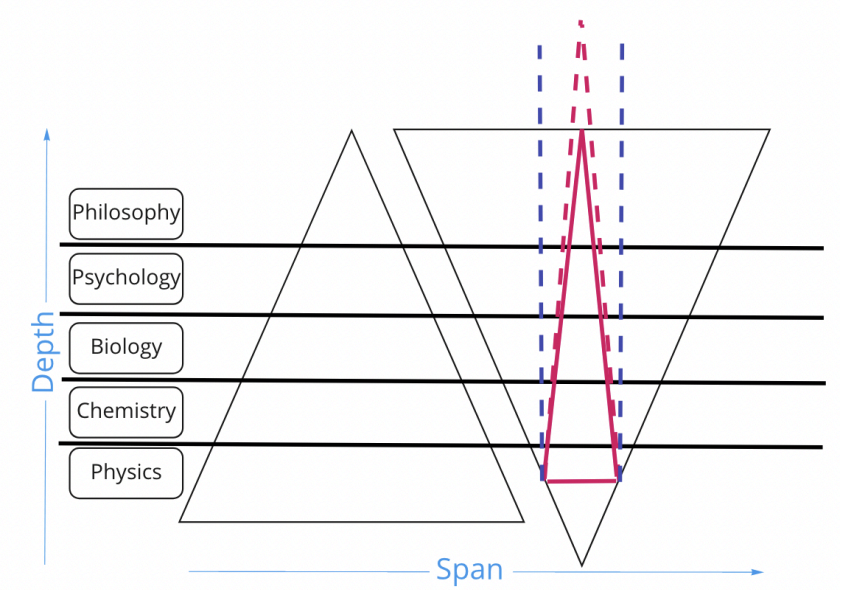
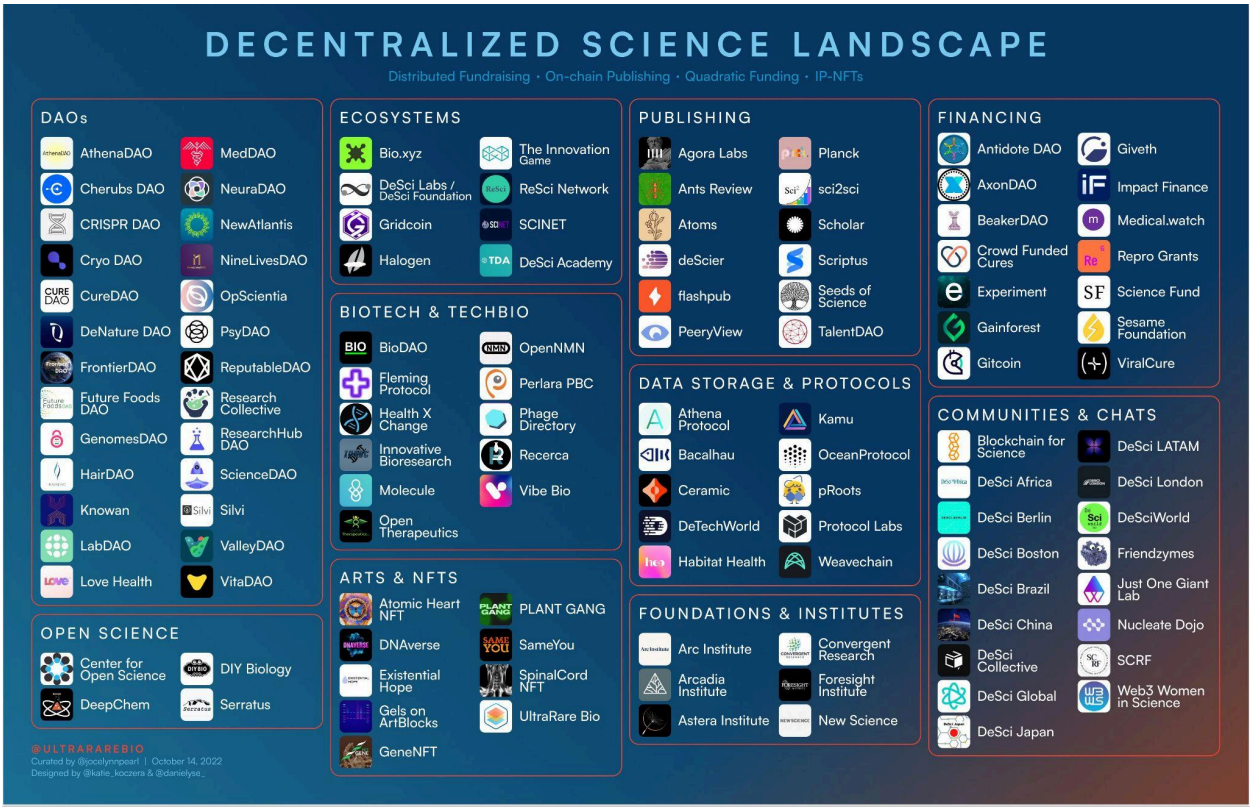


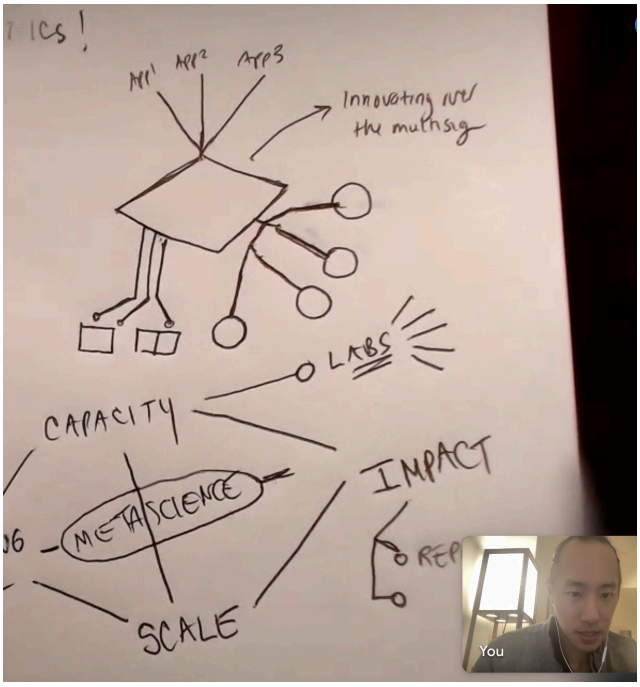
Figure: Depth | complexity of "units" (physics:particles, biology: cells etc.) ie. Cells are more complex than atoms yet are of atoms.
Span | Shear number ie. There are more atoms than cells.
Left Triangle = Span Triangle (there are more atoms than molecules)
Right Triangle = Depth Triangle (molecules are more complex units than atoms)
Red Triangle = Scientific Method (...is optimized for physics and is harder to apply to other fields)
The dotted lines are ways we can extend science to create more affect in "softer" sciences.

Interpretation: Science is a process maximized for physics. Other fields - ie. chemistry, biology, psychology - are more complex to properly study than Science can currently offer. We need to extend the "depth" of field of Science / find complementary processes that help us better explore other fields. Could metascience also find complementary methods that are optimized for biology vs. studying biology in physic's terms?



[A Vision for Metascience]

[Quadrulemma]
Funding Pool:
Carrying Capacity: Availability
Scale:
Impact:



Problems

Metascience:

- Progress: Registered Reports
- Problem: Decline effect?

Open Science:

- Progress: Regulatory backing for storage and for free access.
- Problem: However, authorship has gotten more expensive.

DeSci:

- Progress: Interest
- Problem: Execution