

Let them do research!

The Silver Beach Institute Manifesto

Academic funding is broken. There's too little money available for novel work in science and the social sciences. Applying for grants to capture a small portion of this inadequate pool appears to take, in many cases, a majority of a lead researcher's time, and often requires that projects are substantially modified from the original intent of the researcher in order to fit with prevailing trends and fads in the field. Successful grants can immediately then be cut in half, or even more substantially, by university overhead fees and other arbitrary administrative charges, in particular, the fiction of 'tuition fees' for PhD students. Add this to the fact that formerly wide-ranging grant programs from institutions such as the NSF are becoming explicitly focused on only specific areas of interest such as AI, and the fact that unrestricted funding for academics in private institutions – as was common in the heyday of Xerox PARC and Bell Labs – is increasingly rare (once again, outside of AI and ML), it's clear that it is becoming systematically harder for the median academic researcher to spare any time for actually doing research work rather than the peripheral business of attempting to fund it.

This is pretty much received wisdom nowadays. You know it, I know it, every silicon valley billionaire seems to have realized it at precisely the same time, and now various DAOs are getting in on the action as well. So that's it then -- problem solved? Start a grants program here, a private version of DARPA there, a new physical institute a stone's throw from Stanford's campus, and suddenly progress will speed up again and Tyler Cowen will spontaneously combust with joy.

Well, not quite. While the recent rash of funding program announcements at least ensures that some more money will flow into the research ecosystem over the coming few years, these programs do not solve the root of the problems that affect scientific progress. The most fundamental building block of novel research is the people themselves, the academics who do the work. Today, those academics are recruited from a vanishingly small pool of people who have managed to attend elite undergraduate or Master's-level institutions which allow their students access to research experience at an early stage. This narrows the talent pool massively – we are missing many, many potentially groundbreaking researchers who have not had precisely the life circumstances at an early age necessary to find themselves at an elite graduate program.

The new academics we do manage to recruit are then trained in a system in which their cash-strapped advisors, who have often-total control over the actions and career trajectory of their students, don't or can't let them pursue their own research directions. Instead, they're typically edged or even shoved in the direction of safe incrementalism, such that they work on projects that are able to be funded and that reliably provide fodder for the tenure process or continued reputation of their faculty advisors. Put simply, the system is not set up for new academics who are beginning their graduate training to be able to take big risks with their research, since this might jeopardise the short-term interests of their advisors and departments.

Once the student becomes a faculty member or lead researcher of their own, they, as previously discussed, spend all their time doing administrative nonsense and are still not set up to take big swings, especially since their junior students, whom they might not trust with anything outside relatively safe territory, are doing all the actual work. Once the academic has, in the good case, become a tenured faculty member or senior research lead, their most creative days are typically behind them, and they've been doing things one way long enough that suddenly taking much bigger risks is not likely. We trace the dominance of this breed of risk-averse, incrementalist academic to the initial denial of agency to academics at the very beginning of their careers – since their funding is tied directly to their advisor, they're both transitively at the mercy of the funding agencies that senior academics must appeal to, and subject to the whims and specific tastes of their advisor in particular, preventing them from developing the taste or conviction to take significant intellectual risks on their own. To then expect an academic trained within this system to suddenly emerge fully formed as an independent-thinking research lead with boldness of vision is, to be charitable, somewhat improbable, and to be blunt, downright laughable.

The Silver Beach Institute will tackle these two problems at their roots. First, to the problem of recruitment of new academics into the fold; we will enable any individual who is able to demonstrate interest and originality of thought, regardless of background or previous academic preparation, to begin engaging with cutting-edge research in fields of their interest. We believe that by exploring the frontier directly, people with the ability to do significant original research can be identified quickly and efficiently through their ability to do novel work with a relatively speedy ramp-up from having no background at all. To the second, the question of agency and developing an independent vision, the Silver Beach Institute will fund promising new academics identified via the process described before independently of any advisor or senior researcher, not just in terms of the cost of participating in the program but rather the cost of equipment, materials, compute time, and whatever relevant resources apply to their research. Finally, the institute will provide an in-house, rapid mechanism for funding research projects beyond the early years of an academic career.

In sum, the Silver Beach Institute will train students without regard to previous background or geographic location, will fund projects rapidly and without significant administrative overhead, and nurture long academic careers without forcing researchers to subjugate their wildest ideas to the trends and fads that dominate popular imagination. The Institute will grant no degrees and have no fixed curriculum for any subject or field. The sole metric of success is the research itself – its originality and its potential impact, regardless of success or failure. By eliminating the geographic, administrative and structural shackles that bind existing graduate programs and funding sources, the Silver Beach Institute will be able to enable more researchers to conduct more novel research that otherwise would not have existed at massive scale. More researchers, most of whom would never have been able to enter academia without us, working on more original directions, which in today's funding system would not be tenable, gives us more shots on goal for the production of truly groundbreaking work with vast impact of the kind that has the ability to massively improve the state of humanity.

How will we do this? We believe that there is a significant untapped willingness among the general public to fund, in particular, the early stages of an individual researcher's career, as well as to fund potentially high-impact research projects which are not receiving due consideration from existing funding sources. As such, the Silver Beach Institute will sell individuals the privilege of being the first to fund a new researcher taking their initial steps into novel academic work. The funder will not initially know the identity of the researcher that they are funding, but once a researcher is chosen, and matched up with a funder (randomly), they will be able to point to a public record crediting them with initially funding the researcher, as well as follow along with the researcher's work via both private progress logs and publications when successful research is made public. The researcher will pledge to acknowledge the initial funder in all of their subsequent research publications throughout their career. The funder will be able to mint a Non-Fungible Token that represents their funding of the researcher.

Researchers will be able to apply to this, the Silver Beach Seed program, through a sub-20 minute application. Applications will be reviewed by a panel of accomplished researchers, who will pick the best ones, which will go into a pool where they shall be randomly matched to funders.

Researchers will be able to allocate portions of their individual or project funding to seeking tutelage and advice from more senior academics. Over time, the Institute's 'in-house' cadre, which are primarily funded by the funding mechanisms laid out here, may provide a significant portion of that advice and support, but to begin with, we will bring in faculty and senior researchers from top institutions, compensating them fairly for their time. All of this is in the hands of the individual researchers themselves. The Institute serves as an enabler but does not dictate the terms of work.

The Silver Beach Institute is intended to be the vanguard of a new kind of research ecosystem, where anyone who has the capability to can, any time, begin to explore the frontier and push it forward. The more people push together, the further and faster it will go, and the sooner we can race into a better future.