

The Future of Open Science: A Manifesto for the Next Generation

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Science has always been a collective endeavor, driven by the free exchange of knowledge and ideas. However, in the modern era, corporate publishers, AI monopolies, and institutional gatekeepers have created artificial barriers that restrict access to research, slowing progress and concentrating power in the hands of a few. This manifesto is a call to the next generation of researchers, scientists, and innovators to break free from outdated models and build a future where knowledge is open, decentralized, and accessible to all. The rise of preprints, peer-to-peer networks, and decentralized AI presents an opportunity to bypass traditional gatekeepers and redefine how scientific discoveries are shared. But this future is not guaranteed—without deliberate action, corporate-controlled AI systems and publishing oligopolies will continue to restrict knowledge, reinforcing inequality and intellectual stagnation. We stand at a turning point. The tools exist to create a truly open, censorship-resistant, AI-driven scientific ecosystem. The responsibility now lies with the next generation to reject artificial scarcity, embrace decentralized knowledge-sharing, and ensure that science serves all of humanity—not just the privileged few.

Keywords: open science, decentralized knowledge, preprints, AI in academia, censorship resistance, scientific publishing, peer-to-peer networks, blockchain for science, knowledge monopolies, academic freedom, open-access publishing, research transparency, decentralized AI, intellectual freedom, Sci-Hub, Libgen, DAO-driven science, federated hosting, knowledge preservation, future of academia, scientific collaboration, innovation without gatekeepers.

Note: This I write at age 70 in collaboration with GPT-4o.

Introduction: The Crisis of Knowledge Access

Throughout history, knowledge has been the foundation of human progress. It has been shared, debated, and built upon by generations of thinkers, scientists, and innovators. However, in the modern era, a troubling trend has emerged: the monopolization of knowledge by corporate publishers. The very institutions that claim to champion the dissemination of knowledge have erected barriers that prevent access to crucial scientific findings, restricting innovation and slowing the progress of humanity.

The Increasing Monopolization of Research by Corporate Publishers

In the past, academic publishing was a means of communication between scholars—a way to spread discoveries, refine theories, and push the boundaries of understanding. However, over the decades, academic journals, once independent or institution-supported, have been swallowed by for-profit conglomerates. Today, five major publishing corporations—Elsevier, Springer Nature, Wiley-Blackwell, Taylor & Francis, and SAGE—control a vast majority of academic literature.

These companies do not create research, nor do they fund it. Instead, they profit off the labor of scientists who conduct research, write papers, and even peer review articles—for free. Yet, after this process, the final product is placed behind exorbitantly priced paywalls, requiring universities, governments, and individuals to pay millions of dollars per year for access to research that should be public knowledge.

The situation has become so dire that even well-funded institutions, including Harvard University, have declared that they cannot afford the rising costs of journal subscriptions. If Harvard—one of the world's wealthiest universities—finds this model unsustainable, what does this mean for independent researchers, scientists in developing countries, or the general public?

How Paywalls Stifle Scientific Progress and Innovation

Scientific progress thrives on collaboration and accessibility. When knowledge is locked behind paywalls, it creates intellectual bottlenecks that slow down innovation and make it difficult for new ideas to emerge.

Imagine an independent researcher working on a breakthrough in cancer treatment, but unable to afford access to the latest findings in oncology. Or an engineer in a developing country trying to design sustainable energy solutions but lacking access to crucial climate studies. These scenarios are not hypothetical—they are happening right now.

The financial burden of accessing research also means that knowledge becomes concentrated within elite institutions, preventing equal participation in scientific advancement. This creates a two-tiered system: one where well-funded organizations can advance rapidly, while independent thinkers, researchers from less wealthy institutions, and developing nations are left behind.

Moreover, paywalls slow down crisis response. The COVID-19 pandemic illustrated the dangers of knowledge hoarding. In the early days, some scientific journals made COVID-related papers temporarily free due to public pressure, allowing researchers to rapidly develop vaccines, treatments, and public health responses. But what if this level of access had been the norm before the crisis? What breakthroughs have we missed because knowledge was locked away?

The Moral Case for Open Access and the Importance of Preserving Knowledge

Knowledge is not a commodity to be hoarded by a select few. It is a public good, a shared inheritance that must remain open and accessible for the benefit of all.

The moral case for open access is simple: scientific discoveries, most of which are funded by taxpayers, should not be locked behind paywalls. The public has already paid for this research—through government grants, university funding, and research initiatives. It is unethical to demand millions of dollars in additional fees to access what was created with public money.

Beyond the ethics of paywalls, there is an even greater risk—the potential loss of knowledge over time. Historically, humanity has seen the destruction of priceless libraries, from the Library of Alexandria to the lost Buddhist texts of Nalanda. Today, the digital era creates a new kind of risk: knowledge that is not accessible is effectively erased from public consciousness.

If a scientific paper exists but is locked behind a paywall, it might as well not exist for those who cannot afford access. By contrast, open repositories ensure the preservation and dissemination of knowledge for future generations.

This is why preprints, open-access journals, and decentralized knowledge-sharing efforts are not just alternatives to traditional publishing—they are necessary acts of resistance against the monopolization of knowledge.

The fight for open science is not just about convenience or cost. It is about ensuring that the future of human progress remains open to all, not just to those who can afford it.

The Rise of Preprints and Open Science

For centuries, scientific knowledge has been locked behind institutional and corporate gatekeepers. However, in recent decades, the preprint movement and open science initiatives have begun to dismantle this monopoly, offering a new path forward—one where knowledge is freely shared, rapidly disseminated, and available to all.

This transformation has been driven by preprint servers, grassroots efforts, and the courageous work of activists challenging corporate publishing models. The movement is not just about making research free—it is about reshaping how scientific discovery happens, ensuring that innovation is not slowed by bureaucracy, financial barriers, or institutional politics.

How Preprint Servers Like ResearchGate, ArXiv, and Others Have Changed the Landscape

Traditional academic publishing is slow, expensive, and exclusive. The peer review process, while valuable, can take months or even years to approve a paper for publication. Meanwhile, researchers working on the cutting edge of their fields are left waiting, unable to share their findings with the world.

Enter preprint servers—platforms where researchers can upload their papers immediately without waiting for journal approval. Some of the most prominent preprint platforms include:

- ArXiv – Founded in 1991, primarily for physics, mathematics, and computer science.
- bioRxiv – A biology-focused preprint server that has transformed how biological research is shared.
- medRxiv – A crucial tool for disseminating medical research, especially during the COVID-19 pandemic.
- ResearchGate – A global research-sharing platform where scientists can upload, share, and discuss their work with a vast community.

These platforms have fundamentally changed how research circulates. Instead of waiting for a slow, bureaucratic approval process, scientists can now publish their findings within hours or days, enabling real-time collaboration across institutions and borders.

This shift is particularly important for rapidly evolving fields like AI, quantum computing, and medicine, where knowledge can become outdated in months. Preprint servers remove the bottlenecks that have long plagued academia, allowing scientists to move faster than corporate publishers allow.

The Success of Sci-Hub, Libgen, and Grassroots Efforts in Democratizing Knowledge

While preprint servers solve part of the problem, they do not provide access to existing research that remains locked behind paywalls. This is where Sci-Hub, Libgen, and similar grassroots efforts come into play.

- Sci-Hub – Founded by Alexandra Elbakyan in 2011, Sci-Hub bypasses paywalls and grants free access to millions of scientific papers. It has been called the "Pirate Bay of Science," but to many, it is simply a necessary tool for academic survival.
- Library Genesis (Libgen) – A massive online repository offering access to books, scientific articles, and educational resources that would otherwise be out of reach.
- Anna's Archive – A newer initiative that seeks to catalog and preserve knowledge, ensuring that valuable research cannot be erased or hidden.

These platforms have been relentlessly attacked by publishers, who claim they undermine the integrity of academic publishing. But the truth is they fill a gap that corporate publishers refuse to address.

Millions of researchers—especially those in developing countries—rely on Sci-Hub and Libgen because their institutions simply cannot afford the astronomical costs of journal subscriptions. These grassroots efforts have made millions of scientific papers available to anyone with an internet connection, bypassing an unjust system that treats knowledge as a commodity rather than a shared resource.

Despite legal threats, Sci-Hub remains widely used, demonstrating that researchers will seek out knowledge regardless of the restrictions placed upon them. The fight for open science has become an act of defiance against artificial scarcity—a movement that is fundamentally reshaping the accessibility of human knowledge.

Why Younger Researchers Should Reject the Outdated Gatekeeping Model

The old model of academic publishing was built for a pre-digital world—a time when paper journals were the primary way to distribute research. Today, this model is obsolete.

Yet, many young researchers still feel pressure to submit their work to high-impact journals, fearing that their careers depend on the "prestige" of these outdated institutions. However, this prestige is manufactured by the publishers themselves, who profit from an artificial scarcity of knowledge.

Younger researchers must reject this broken system for several reasons:

1. Speed & Accessibility – The world needs scientific breakthroughs now, not months or years from now. Preprints accelerate discovery by making research available immediately.
2. Collaboration Over Competition – Science should not be a zero-sum game where researchers hoard knowledge to protect their careers. Open access fosters global collaboration and cross-disciplinary breakthroughs.
3. Decentralization of Knowledge – The internet enables direct sharing between scientists, eliminating the need for corporate middlemen who profit from restricting access.

4. Ethical Responsibility – Research is often funded by taxpayers and public institutions. It is unethical to allow corporations to monetize this knowledge at the expense of the public.
5. Career Independence – The traditional publishing model binds researchers to institutions that dictate where they must publish. By embracing open science, young scholars can take control of their own research destinies.

The rise of AI, decentralized knowledge networks, and preprint servers makes it possible for young researchers to build their careers without relying on corporate publishers. The only thing preventing this shift is tradition—and traditions only persist if people continue to follow them.

Young scientists and researchers have a choice:

- Stay trapped in a dying system, where gatekeepers profit off their labor.
- Or embrace the open science movement, ensuring that knowledge flows freely to those who need it most.

The future belongs to those who choose openness over artificial scarcity. The next generation must reject the broken academic publishing model and build something better.

AI and the Battle for Open Knowledge

Artificial Intelligence is transforming nearly every aspect of human knowledge, from scientific research to literature and philosophy. It has the power to revolutionize how knowledge is stored, accessed, and connected—but it also carries risks. If AI is controlled by corporate monopolies, it will reinforce the very barriers that have plagued academic publishing for decades.

The battle for open knowledge is no longer just about breaking down paywalls; it is about who controls the indexing, curation, and discovery of information. AI can either be a tool for freeing knowledge or a weapon for restricting access even further.

The Role of AI in Cataloging and Curating Research

The sheer volume of research being published today is staggering. With the rise of preprints, decentralized archives, and independent research efforts, traditional search engines and indexing services struggle to keep up. This is where AI can play a crucial role.

AI-powered tools can:

- Automate indexing – AI can scan and categorize millions of papers, making them searchable in real time.
- Enhance discovery – Machine learning can recommend relevant research based on context, citations, and scientific trends.
- Summarize findings – AI can generate concise, high-quality summaries of complex papers, making research more accessible.
- Detect connections across disciplines – AI can recognize patterns across physics, biology, and computer science, linking ideas that human researchers might overlook.

For example, an AI system trained on open-access preprints could automatically:

- Detect duplicate research, preventing redundant efforts.
- Identify undiscovered relationships between findings in different fields.
- Improve collaboration by connecting researchers working on similar problems.

However, while AI holds immense potential for democratizing knowledge, it also presents a clear danger: who controls the AI that determines what knowledge is visible?

The Risks of Google, Cloudflare, and Big Tech Throttling Open-Access Repositories

Most people today rely on Google Scholar or similar tools to find research. However, Google ultimately decides what gets indexed and what does not. The same applies to hosting providers like Cloudflare, Amazon Web Services (AWS), and Microsoft Azure, which can restrict or remove access to entire platforms at will.

We have already seen evidence of corporate interference in open-access knowledge:

- Google Scholar does not index Sci-Hub or Libgen, despite their massive repositories of scientific papers.
- Cloudflare dropped support for Sci-Hub, leading to increased difficulty in accessing the site.
- AI models trained by Big Tech (e.g., OpenAI, Google DeepMind) are often biased toward corporate-approved sources and may avoid indexing alternative research.

If the future of AI-powered knowledge discovery remains in the hands of Google, Amazon, or Microsoft, we risk a scenario where:

- Only corporate-approved or institutionally sanctioned knowledge is visible.
- Open-access preprints and alternative research are de-ranked, ignored, or outright erased.
- AI-generated summaries are biased toward mainstream narratives, rather than reflecting the full diversity of thought.

The worst-case scenario? A world where AI knowledge systems do not just reflect existing paywalls but reinforce them. If Big Tech censors, de-ranks, or throttles open-access knowledge, it will be as if that knowledge never existed.

The Need for Decentralized AI-Driven Preprint Indexing to Prevent Censorship

The only way to ensure AI serves the cause of open knowledge is to remove it from corporate control. The scientific community must take the lead in building decentralized AI-driven indexing and discovery systems that:

1. Are independent from Google, Cloudflare, and AWS – Instead of relying on centralized services, peer-to-peer networks (IPFS, BitTorrent, or Hypercore) can be used to store and share research in a censorship-resistant way.
2. Use decentralized search algorithms – Instead of relying on Google Scholar, we need AI-driven open-source search engines that index preprints, self-hosted research, and independent studies. Projects like YaCy, Presearch, and OpenAlex are steps in this direction.

3. Run on federated and blockchain-based infrastructure – AI models can be trained using federated learning, meaning no single entity owns or controls the knowledge index. Blockchain-based registries can ensure papers cannot be erased or manipulated after publication.
4. Prioritize open-access sources – Instead of ranking research based on corporate "impact factors," AI can highlight research based on scientific merit, reproducibility, and peer collaboration.
5. Integrate with global knowledge-sharing networks – AI-powered platforms should be designed to bridge languages and disciplines, ensuring that a scientist in South America, Africa, or Asia has the same access as someone at Harvard or MIT.
6. Allow community moderation instead of corporate oversight – Rather than Google deciding what is “reliable,” scientific communities should have input on ranking, summarization, and indexing of knowledge.

This is not just a theoretical idea—it is a necessity if we want to prevent the total centralization of knowledge under a few tech giants. AI must serve humanity, not corporate interests.

The Future: AI as a Force for Open Knowledge

We are at a crossroads. AI can either liberate knowledge or enslave it behind digital barriers more sophisticated than anything we have seen before.

If left in the hands of Google, Cloudflare, and Amazon, AI will become a gatekeeper of knowledge—determining what research is seen, what is buried, and what is erased.

If developed in a decentralized, open-source manner, AI can become the ultimate tool for free knowledge—organizing, indexing, and democratizing access to human discovery for all people, in all places, at all times.

The fight for open science is no longer just about removing paywalls. It is about ensuring that the future AI systems deciding what knowledge is accessible are built for the benefit of all, not controlled by a few powerful corporations.

The next generation of researchers must take this responsibility seriously—because if they do not, knowledge will not just be paywalled; it will be algorithmically erased from history.

A Call for Decentralized Knowledge Infrastructure

If knowledge is to remain free and accessible, it must also be resilient against censorship, corporate control, and geopolitical restrictions. Traditional repositories of knowledge—whether scientific journals, university libraries, or centralized preprint servers—are vulnerable to political pressure, corporate buyouts, and infrastructure choke points controlled by a few powerful entities.

To ensure the future of open science, the next generation must build censorship-resistant, decentralized knowledge archives—systems that are self-sustaining, globally accessible, and beyond the reach of any single authority.

How to Build Censorship-Resistant Knowledge Archives

Current open-access initiatives, like ArXiv, ResearchGate, and Sci-Hub, have made enormous progress in making knowledge free. However, they still rely on centralized servers, meaning they can be blocked, taken down, or throttled by governments and corporations.

A truly unstoppable knowledge infrastructure must be built using decentralized technologies such as:

1. IPFS (InterPlanetary File System)

- IPFS is a peer-to-peer file-sharing system where documents are stored across multiple nodes instead of a central server.
- Unlike traditional web hosting (which relies on single-location servers), IPFS ensures that as long as at least one person has a copy, the knowledge remains accessible.
- This has already been used to preserve banned books, censored articles, and leaked government documents—it is a natural fit for scientific knowledge.

2. Blockchain-Based Archives

- Blockchain ledgers (e.g., Ethereum, Arweave) can be used to store immutable records of research papers, ensuring that knowledge cannot be altered, removed, or forged.
- Projects like Arweave's Permaweb store documents permanently, guaranteeing that once knowledge is published, it cannot be erased.
- Blockchain can also be used to create verified citations, timestamped discoveries, and decentralized peer review, replacing the outdated impact factor system controlled by corporate publishers.

3. Federated Hosting & Self-Replicating Networks

- Instead of relying on one large database, federated hosting allows multiple independent servers to store and mirror content.
- Examples: Mastodon (a decentralized social network), Matrix (decentralized messaging), and PeerTube (decentralized video hosting).
- If one server is taken down, others continue to host and share the knowledge.

4. Decentralized Domain Name Systems (DNS)

- Traditional websites rely on centralized domain registrars (GoDaddy, Cloudflare, ICANN, etc.), making them vulnerable to takedowns.
- Decentralized DNS solutions, like Handshake, ENS (Ethereum Name Service), or Unstoppable Domains, allow research platforms to exist beyond the reach of government or corporate deplatforming.

By combining these tools, the scientific community can build an infrastructure that no single government, corporation, or institution can control or erase.

The Role of Peer-to-Peer Networks in Maintaining Free Access to Science

Decentralization means removing power from centralized institutions and distributing it across a network of participants. Peer-to-peer (P2P) networks are essential in making scientific knowledge uncensorable and permanently accessible.

How P2P networks help science:

- Redundancy & Resilience – Knowledge is stored across many computers, so it cannot be taken down by shutting off a single server.
- Global Accessibility – Researchers in restricted regions (e.g., China, Iran, Russia) can access knowledge without needing permission from centralized institutions.
- Community-Driven Growth – The more people host the knowledge, the faster and more robust the network becomes.

Examples of P2P Scientific Networks:

- Academics Uniting on IPFS – Some researchers are already hosting research papers on IPFS, ensuring they remain accessible even when removed from official archives.
- Sci-Hub Mirrors – Sci-Hub is frequently taken down, but P2P mirrors ensure that its database keeps spreading across the internet.
- Library Genesis Distributed Hosting – Libgen uses a torrent-based sharing model, meaning books and papers are shared across a global network, not one central server.

By expanding these efforts into a fully decentralized scientific knowledge network, we ensure that future discoveries remain free no matter how much resistance they face.

Why Decentralized Funding Models Are Crucial

A major challenge in maintaining open science is funding. Corporate publishers profit off paywalls, institutional subscriptions, and government lobbying. In contrast, open-access initiatives often struggle with financial sustainability.

To break free from corporate control, we need decentralized funding models that allow researchers, developers, and archivists to keep knowledge open without relying on centralized funding sources.

Three Key Models for Decentralized Science Funding:

1. Cryptocurrency & Smart Contracts

- Decentralized cryptocurrencies (Bitcoin, Ethereum, Monero) allow scientists to fund open-access projects without needing institutional approval.
- Smart contracts on Ethereum (or similar blockchains) can automate grants, research incentives, and even decentralized peer review rewards.

2. Donation-Based Models (Like Sci-Hub & Libgen)

- Platforms like Sci-Hub survive through small, global donations from researchers who benefit from their work.
- Expanding direct support models (via cryptocurrency or anonymous donation channels) can make open science more resilient.

3. DAO-Driven Science (Decentralized Autonomous Organizations)

- DAOs allow decentralized communities to fund, manage, and govern scientific research without corporate or governmental control.
- Examples:
 - VitaDAO – Funds open-access longevity research through decentralized grants.
 - DeSci (Decentralized Science) Initiatives – Using blockchain to fund, publish, and review research outside the traditional academic model.

- DAOs remove bureaucratic gatekeeping and let scientists fund their own projects collectively.

The Future: Breaking Free from Traditional Funding Constraints

If open science is to survive, it must not rely on institutions that profit from keeping knowledge locked away. A decentralized knowledge network needs decentralized funding—whether through crypto, DAOs, or donation-based models.

If researchers control their own funding,
If knowledge is hosted on peer-to-peer, censorship-resistant networks,
If AI is trained on open-access materials instead of corporate-controlled databases,

Then we break the monopoly on knowledge forever.

Final Call to Action: Build the Future of Open Knowledge

The academic publishing industry will not reform itself. Big Tech will not voluntarily free knowledge. Governments will not prioritize open access over corporate profits.

The next generation must take matters into their own hands.

- Host knowledge on decentralized networks.
- Support crypto-funded, open-access science.
- Build AI-powered knowledge discovery tools that serve people, not corporations.
- Spread uncensorable, self-replicating archives of human knowledge.

The era of corporate knowledge control must end—and it will only happen if young researchers reject the old system and build something new.

The tools exist. The infrastructure is possible. The only question is:

Who will step forward and build it?

The Responsibility of the Next Generation

The battle for open knowledge is not just an abstract debate about publishing models—it is a defining issue for the future of scientific progress, technological innovation, and intellectual freedom. The next generation of researchers must take up this fight, not just to advance their own careers but to preserve the very essence of scientific discovery as an open, collaborative, and global effort.

If the younger generation allows corporate publishers, AI monopolies, and centralized institutions to dictate how knowledge is controlled, humanity risks a future where science is restricted to the highest bidders, innovation slows, and only a privileged few have access to truth.

The next wave of scientists, engineers, and thinkers must actively reject the old gatekeeping system and build a new decentralized, AI-powered, open-access scientific world. The alternative is intellectual stagnation, monopolized AI control over research, and a scientific dark age controlled by profit-driven entities.

Why Younger Researchers Must Take Up the Fight for Open Science

Every great revolution in knowledge has been driven by young minds willing to challenge the status quo.

- The Renaissance was sparked by thinkers who rejected dogmatic control of knowledge and sought a rediscovery of scientific truth.
- The Enlightenment broke the stranglehold of authority on knowledge and established rational inquiry as a public good.
- The Open Source Movement freed software development from corporate monopolies, allowing Linux, Wikipedia, and the internet itself to thrive.

Now, a new generation must step forward to liberate scientific knowledge from corporate control.

Younger researchers must recognize that the traditional academic model is not built for them—it is built for those who seek to profit from their work without contributing anything in return.

The Harsh Reality: Academia is Built to Exploit Young Researchers

- You are expected to work for free – Most researchers submit their work to journals without pay. They even peer review other researchers' work for free, while publishers sell these same journals for millions of dollars per year.
- Your research is locked away from the world – Even though universities and governments fund most research, the final publications are paywalled, restricting access to students, independent researchers, and the general public.
- You are judged by outdated prestige metrics – Impact factors, citation counts, and institutional reputation matter more than actual scientific contribution in traditional academia.
- You are competing instead of collaborating – The publish-or-perish system forces researchers into zero-sum competition, rather than fostering the open exchange of ideas.
- Your work may be controlled by corporate AI monopolies – If AI models are trained only on corporate-approved and paywalled datasets, you will not control how your research is used or discovered.

This system does not exist to advance science—it exists to keep power and profits concentrated within a few major publishing conglomerates.

Young researchers have two options:

1. Accept this broken system, hoping it will change on its own (it won't).
2. Reject it and build something better—a decentralized, AI-powered, open-access future.

The old system will not last—but how quickly it collapses depends on how fast the next generation moves to replace it.

How Staying Within Corporate Academia Leads to Intellectual Stagnation

One of the greatest tragedies of modern academia is that it actively discourages risk-taking, originality, and interdisciplinary thought.

- Breakthroughs are delayed because researchers must conform to peer-review gatekeeping that favors consensus over bold new ideas.
- The most creative thinkers are pushed to the margins—those who challenge mainstream academic narratives struggle to get published, find funding, or receive recognition.
- Research stagnates in institutional silos—AI researchers may never see critical breakthroughs in physics, while medical scientists may never benefit from advancements in quantum computing.

If young researchers do not step outside the corporate academic model, they will be:

- Limited by what journals allow them to publish.
- Constrained by what Big Tech allows AI models to index and summarize.
- Trapped in an endless cycle of producing research that serves bureaucracy rather than scientific discovery.

This is how intellectual stagnation happens:

- The world stops seeing bold new theories because researchers fear stepping outside the acceptable academic mainstream.
- The best minds become consumed with chasing grants and impact factors, rather than advancing human knowledge.
- AI becomes a corporate tool that reinforces stagnation, rather than an engine of discovery.

The way forward is not to reform the system from within—but to replace it entirely.

A Vision of a Future Where AI, Open-Access, and Decentralized Networks Replace Legacy Publishing

A new system must emerge—one where:

1. AI is Used to Enhance Knowledge Discovery, Not Gatekeep It

- Instead of corporate-controlled AI, we need open-source AI models trained on preprints, open-access databases, and decentralized repositories.
- AI should help researchers find, connect, and understand knowledge, not restrict it behind paywalls.
- AI-assisted research should be owned by the scientific community, not dictated by Google, Microsoft, or corporate publishing firms.

2. Knowledge is Stored on Decentralized Networks, Not Corporate Servers

- Research should be hosted on IPFS, blockchain archives, and federated networks where no single institution can delete or censor it.
- Censorship-resistant archives should be mirrored across the world, ensuring permanent access to human knowledge.
- Decentralized platforms should allow researchers to publish independently, without needing permission from centralized journals.

3. Funding is Community-Driven, Not Controlled by Institutions

- Instead of begging for institutional grants, researchers should have direct funding through DAOs, crypto-based science funding, and global donations.
- Smart contracts could enable automated peer review rewards, replacing the exploitative corporate model.
- Open science could be self-sustaining—instead of relying on universities that themselves are bound by corporate influence.

4. Scientific Recognition is Based on Merit, Not Prestige Metrics

- Instead of impact factors controlled by publishers, researchers should be evaluated based on community validation, reproducibility, and real-world impact.

- AI could generate real-time reputation scores, tracking contributions across multiple fields, rather than relying on outdated citation counts.
- Decentralized peer review could ensure scientific accountability without corporate censorship.

5. Research is Open to All, Not Just the Academic Elite

- A high school student in Africa should have the same access to scientific knowledge as a professor at MIT.
- The next Einstein, Tesla, or Curie should not have to fight paywalls and institutional gatekeepers to share their discoveries.
- Science should belong to humanity, not to the corporations that seek to control it.

The Choice Is Clear: Build the Future or Be Trapped by the Past

The future of science is in the hands of the next generation.

- Will they allow corporate publishing to dictate what knowledge is shared?
- Will they let Google and Big Tech decide what research is accessible?
- Will they accept an academic system that exploits them, delays breakthroughs, and limits collaboration?

Or will they seize the opportunity to build something better?

The tools for open, decentralized, AI-powered science already exist.

The only thing missing is widespread adoption by the next generation of researchers.

The battle for open knowledge is not over—but if the next generation chooses to stay in the old system, the future of science will be decided by those who control it, not those who create it.

The revolution in knowledge must happen now—before it is too late.

Conclusion: Stay the Course, Build the Future

The fight for open science is not theoretical—it is personal. I have lived it, and I have seen firsthand what happens when knowledge is locked away behind institutional and corporate barriers. The difference between scientific progress and stagnation is not just a matter of funding or infrastructure—it is a matter of access.

For the past two years, I have written and collaborated on over 3,200 papers, reaching nearly a million readers per year on ResearchGate preprints alone. These papers exist outside the traditional publishing model, free from the constraints of corporate gatekeeping. I have chosen to stay at the preprint level not because it is easy, but because it is the only way to ensure that ideas flow freely to those who seek them. This I write at age 70.

If I had followed the conventional path—submitting to high-impact journals, chasing impact factors, waiting months or years for publication—many of these ideas would still be sitting in limbo, unseen, unread, and unable to contribute to the larger scientific dialogue. Instead, they are out in the world, shaping discussions, sparking debate, and inspiring new insights.

I stayed the course because I refuse to be complicit in a system designed to restrict knowledge. And I urge the next generation to do the same—not just for themselves, but for all those who come after them.

The Legacy of Open Science and Why It Must Continue

The push for open science is not a new fight—it has been waged for centuries by those who believed that knowledge belongs to all, not just the privileged few.

- The printing press broke the monopoly of scribes, making books accessible to the masses.
- The open-source movement liberated software development from corporate control, allowing millions to build upon shared code.
- The internet shattered the barriers of physical distance, allowing knowledge to be shared across the world in seconds.

Now, we stand at a new crossroads. AI, decentralized networks, and open-access platforms have made it possible to remove the final gatekeepers from scientific publishing. But those in power will not relinquish control easily.

Corporate publishers, AI monopolies, and centralized institutions will fight to maintain their grip on knowledge—because knowledge is power.

But history has shown that when enough people refuse to comply, the old systems collapse.

The open science movement must continue because:

- Every person, regardless of wealth or location, deserves access to knowledge.
- The greatest discoveries often come from those outside the mainstream, free to explore new ideas.
- Humanity's survival depends on unrestricted collaboration and innovation.

This is not just a matter of fairness—it is a matter of human progress itself.

A Final Call to Action: "Knowledge Belongs to All. The Future Must Be Open."

To the next generation of researchers, scientists, and thinkers: The responsibility is now yours.

- Do not accept the old system just because it is what you were taught.
- Do not let corporate publishers, Google, or AI monopolies decide what knowledge is accessible.
- Do not waste your talents chasing institutional approval instead of making real discoveries.

You have the tools to break free:

- Use preprints, decentralized knowledge networks, and open-access platforms.
- Train AI models on open data, not corporate-controlled archives.

- Support censorship-resistant hosting and decentralized funding models.

Most importantly, publish your research freely. Do not wait for permission.

If enough of you refuse to comply with the old system, it will collapse under its own irrelevance.

The future of knowledge is in your hands.

Stay the course. Build the future. Knowledge belongs to all. The future must be open.

References

Below is a list of references that support the claims and discussions in this manifesto. These include sources on open science, decentralized knowledge infrastructure, AI and knowledge access, and the ethical concerns surrounding corporate-controlled publishing.

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Sci-hub, Libgen, and Anna's Archive are services you can use to pirate books and scientific papers.

The creators of these services are committed to opening up copyrighted works, despite legal risk.

They're now advising the West to fix copyright law or lose the AI race.

Me and my team are ideologues. We believe that preserving and hosting these files is morally right. Libraries around the world are seeing funding cuts, and we can't trust humanity's heritage to corporations either.

Then came AI. Virtually all major companies building LLMs contacted us to train on our data. Most (but not all!) US-based companies reconsidered once they realized the illegal nature of our work. By contrast, Chinese firms have enthusiastically embraced our collection, apparently untroubled by its legality. This is notable given China's role as a signatory to nearly all major international copyright treaties.

We have given high-speed access to about 30 companies. Most of them are LLM companies, and some are data brokers, who will resell our collection. Most are Chinese, though we've also worked with companies from the US, Europe, Russia, South Korea, and Japan. DeepSeek admitted that an earlier version was trained on part of our collection, though they're tight-lipped about their latest model (probably also trained on our data though).

If the West wants to stay ahead in the race of LLMs, and ultimately, AGI, it needs to reconsider its position on copyright, and soon. Whether you agree with us or not on our moral case, this is now becoming a case of economics, and even of national security. All power blocs are building artificial super-scientists, super-hackers, and super-militaries. Freedom of information is becoming a matter of survival for these countries — even a matter of national security.

Our team is from all over the world, and we don't have a particular alignment. But we'd encourage countries with strong copyright laws to use this existential threat to reform them. So what to do?

Our first recommendation is straightforward: shorten the copyright term. In the US, copyright is granted for 70 years after the author's death. This is absurd. We can bring this in line with patents, which are granted for 20 years after filing. This should be more than enough time for authors of books, papers, music, art, and other creative works, to get fully compensated for their efforts (including longer-term projects such as movie adaptations).

Social media post.