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Second Order Science Foundation

National Institutes of Health Office of Science Policy Attention: NOT-OD-25-138 Comment Submission
Via: <https://osp.od.nih.gov/comment-form-maximizing-research-funds-by-limiting-allowable-publishing-costs/>

RE: Comment on Request for Information on Maximizing Research Funds by Limiting Allowable Publishing Costs (NOT-OD-25-138)

Dear NIH Leadership and Policy Development Team:

I submit this comprehensive legal analysis in response to NOT-OD-25-138's request for information on limiting allowable publication costs. The attached article, "Academic Publishing's Systematic Fraud: Legal Remedies for a Corrupted Enterprise," provides critical context that NIH must consider when implementing Article Processing Charge limitations: the proposed caps, while necessary, address only symptoms of a far more serious problem requiring coordinated legal enforcement.

The timing of this RFC is not coincidental. NIH's concern about "the overall financial burden placed on the public" reflects recognition that academic publishers are extracting billions from federal research funds through systematic fraud. My analysis demonstrates that publishers charge up to \$11,000 for "rigorous peer review" while simultaneously operating paper mills, accepting editorial bribes, and enabling unprecedented research fraud. The 10,000+ paper retractions in 2023 alone represent a crisis that APC caps cannot solve without addressing underlying criminal conduct.

Direct Response to NIH's Policy Options

Of NIH's five proposed options, Option 1 (complete disallowance) represents the most legally defensible approach given the evidence of systematic fraud detailed in my analysis. Under 2 C.F.R. § 200.403, costs must be "necessary and reasonable." No prudent person aware of paper mill infiltration, editorial bribery networks, and 54-person cartels controlling elite journals would consider \$11,000 charges reasonable for corrupted services. When publishers retain APCs from retracted papers—as Wiley did with 11,300 Hindawi retractions—they demonstrate that payment precedes rather than follows legitimate service delivery.

Options 2-5, while preferable to unlimited extraction, risk legitimizing fraudulent enterprises at capped rates. A \$2,000 cap still represents 400% markup over reasonable costs when publishers have eliminated human editorial oversight, compressed peer review to meaningless timeframes, and automated production processes. More fundamentally, any payment to publishers operating paper mills or accepting editorial bribes constitutes potential False Claims Act violations regardless of amount.

Option 3's incentive for peer reviewer compensation is well-intentioned but misunderstands the fraud's nature. The problem is not unpaid reviewers but corrupted review processes where "peer review"

becomes a marketing fiction. Paying reviewers while publishers continue accepting bribes and enabling paper mills would legitimize rather than reform the system.

Legal Implications of APC Policy Implementation

NIH's implementation of any payment limitation must consider potential False Claims Act liability for both the agency and grantee institutions. When universities submit grant reports claiming publication costs are "necessary and reasonable" while evidence reveals systematic fraud, they risk criminal and civil liability under 31 U.S.C. § 3729. NIH's continued reimbursement of fraudulent APCs, particularly after December 31, 2025 implementation of open access mandates, could constitute knowing facilitation of fraud.

The legal framework I present offers NIH powerful tools beyond cost limitations. The agency can immediately exclude journals with high retraction rates from approved publication venues, require publishers to provide detailed cost breakdowns and service verification, implement mandatory refunds for retracted papers, and coordinate with DOJ on False Claims Act enforcement against publishers extracting federal funds through fraud.

Evidence Supporting Immediate Action

My analysis documents systematic publisher fraud through multiple mechanisms:

- Paper mill operations industrializing fake research production
- Editorial bribery networks accepting up to \$20,000 for guaranteed publication
- 54-person cartels controlling 50% of elite journal publications through reciprocal acceptances
- Profit margins of 30-40% exceeding Apple and Google on services provided by unpaid academic labor
- Systematic retention of fees for retracted papers creating perverse incentives for fraud

This evidence transforms NIH's cost concerns from budget management to fraud prevention. The agency faces a choice: implement caps that legitimize fraud at lower rates, or leverage existing legal authorities to prosecute systematic deception.

International Models Supporting Reform

European approaches demonstrate viable alternatives to extraction-based publishing. Germany's €2,000 caps, France's diamond open access promotion, and Plan S requirements for cost transparency prove that quality research dissemination does not require the extortionate fees American researchers pay. NIH's global leadership position provides unique leverage to demand similar accountability from publishers seeking federal reimbursement.

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Recommendations for Implementation

1. Adopt Option 1 (complete disallowance) as the most legally defensible approach given documented fraud
2. Coordinate with DOJ on False Claims Act investigations of publishers extracting federal funds through systematic deception
3. Require comprehensive service verification and cost documentation from any publisher seeking federal reimbursement
4. Implement mandatory refund requirements for retracted papers
5. Exclude journals with documented paper mill infiltration or editorial corruption from federal reimbursement eligibility

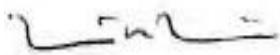
The Broader Context

This RFC occurs at a pivotal moment when federal open access mandates converge with unprecedented evidence of publisher fraud. The December 31, 2025 deadline creates urgency for reform that protects taxpayer funds while ensures legitimate research reaches the public. Half-measures that cap extraction without addressing underlying fraud will merely provide publishers time to perfect their schemes.

The attached legal analysis provides NIH with comprehensive documentation of publisher fraud and detailed enforcement strategies. The evidence is overwhelming, the law is clear, and federal agencies possess existing authorities to dismantle fraudulent enterprises corrupting scientific communication. What's needed is recognition that academic publishing fraud demands the same aggressive prosecution that has dismantled fraud in healthcare, aviation, and financial services.

I thank NIH for this opportunity to contribute to crucial policy development and stand ready to provide additional analysis or testimony as needed.

Respectfully submitted,



Michael Lissack

Attachment: Academic Publishing's Systematic Fraud: Legal Remedies for a Corrupted Enterprise
(complete article with footnotes)

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Academic Publishing's Systematic Fraud: Legal Remedies for a Corrupted Enterprise

Michael Lissack

Abstract

The transformation of academic publishing from knowledge dissemination into systematic fraud represents one of the most consequential yet overlooked crises in modern science. Publishers now charge researchers up to \$11,000 per article for what they market as "rigorous peer review" while simultaneously operating paper mills that mass-produce fraudulent research, accepting editorial bribes that guarantee publication regardless of quality, and presiding over an unprecedented wave of retractions that exceeded 10,000 papers in 2023 alone. These practices generate profit margins of 30-40% that exceed those of Apple or Google, and they are not isolated incidents but evidence of a coordinated enterprise that diverts billions from federal research funds while corrupting the scientific knowledge upon which medicine, engineering, and public policy depend.

Recent investigations have exposed the depth of this corruption. The Mindel and Ciriello audit of elite business journals revealed that just 54 authors, representing only 2.4% of contributors, have captured 49.5% of all publication slots through a web of 683 documented editorial conflicts of interest. This network, which is 94.5% male, operates through reciprocal acceptance arrangements where editors and authors trade favorable decisions, systematically excluding merit-based research while guaranteeing publication for insiders. The papers published through these corrupted channels are demonstrably inferior, receiving 24% fewer citations than those selected through legitimate peer review, yet they dominate the literature and shape billions in research funding decisions.¹

The convergence of federal open access mandates taking effect December 31, 2025, mounting evidence of AI-enabled fraud, and successful enforcement precedents creates an unprecedented opportunity for legal intervention.² This Article demonstrates how publishers' practices constitute actionable fraud under multiple legal theories, including the False Claims Act for defrauding federal grant programs, the Lanham Act for false advertising in the marketing of peer review services, consumer protection statutes that multiply remedies for deceptive practices, and antitrust law that offers tools to dismantle the market structures enabling exploitation.³ Where fraud becomes systematic racketeering, criminal statutes may apply, as evidence suggests has occurred in academic publishing.⁴

Drawing parallels to successfully prosecuted frauds in other industries—from hotels charging hidden resort fees to airlines providing substandard service despite premium pricing—this Article maps how similar deceptions in academic publishing demand similar legal responses.⁵ The Federal Trade Commission's \$50.1 million judgment against predatory publisher OMICS and the airline industry's transformation through coordinated enforcement action provide tested blueprints for reform.⁶ What distinguishes academic publishing is not the complexity of its fraud but the audacity with which it operates in plain sight, corrupting science while claiming to safeguard it.

The path forward requires recognizing academic publishing for what it has become: a commercial enterprise that systematically defrauds its customers and the federal government while degrading the quality of human knowledge. Through coordinated deployment of civil enforcement, potential criminal

sanctions, and regulatory reform, law can break publishers' stranglehold on scientific communication. Every day of delay means more corrupted research enters the literature, more legitimate scientists are excluded by insider networks, and more taxpayer funds are diverted from discovery to deception. The evidence is clear, the law provides remedies, and the time for prosecutorial action is now.

Keywords: Academic publishing, False Claims Act, Consumer protection, Antitrust law, Scientific fraud, Peer review, Technology regulation

I. Introduction: Unmasking the \$10 Billion Fraud

The email arrived on a Tuesday morning in December 2023, the kind of message that should have marked a career milestone. Dr. Sarah Chen, an early-career cancer researcher at a major research university, had waited six months for this notification from a prestigious Wiley journal. After three rounds of revisions, countless hours refining her methodology, and painstaking responses to reviewer comments, her groundbreaking work on novel therapeutic pathways had finally been accepted for publication. The journal's reputation in her field meant this publication could secure her tenure-track position and, more importantly, advance treatments for patients desperately needing new options.

The acceptance came with a single requirement: payment of \$5,200 in Article Processing Charges, to be drawn from her National Institutes of Health grant. This represented nearly 10% of her annual research budget, money that could have funded a graduate student for a summer or purchased critical laboratory supplies. But in the modern academic ecosystem, such charges had become as inevitable as they were painful. Dr. Chen authorized the payment, considering it a necessary investment in disseminating research that could save lives.

Three months later, a different email shattered her sense of accomplishment. Her article was being retracted—not for any flaw in her research, but because it had been published in one of 11,300 papers Wiley would ultimately retract from its Hindawi subsidiary after discovering systematic fraud throughout the journal's operations. The investigation revealed paper mills had infiltrated the publication, editors had accepted bribes for favorable decisions, and peer review had become a facade maintained only for marketing purposes. The journal kept the money. Dr. Chen's reputation suffered irreparable damage. The cancer patients who might have benefited from her legitimate research lost irreplaceable time while fraudulent papers clogged the scientific literature.

The ripple effects of Dr. Chen's experience extended far beyond her individual career. Her graduate students, who had contributed years of work to the retracted research, found their own careers tainted by association. Two abandoned their PhD programs entirely, representing decades of lost scientific potential. Her collaborators at other institutions faced scrutiny about their own publications, with some undergoing investigations that consumed months and destroyed professional relationships. The clinical trial based on her preliminary findings had to be terminated, wasting \$3 million in federal funding and destroying hope for dozens of patient volunteers who had enrolled believing they were contributing to breakthrough research.

Her department suffered lasting damage. The retraction triggered a university investigation that, while ultimately exonerating Dr. Chen of any misconduct, consumed hundreds of hours of faculty time and

created an atmosphere of suspicion that poisoned collaborative relationships. Grant applications from the department faced enhanced scrutiny, with several rejected explicitly citing "concerns about research integrity" stemming from the retraction. The department's ranking fell, making it harder to recruit top graduate students and faculty. The university's reputation suffered damage that administrators estimated would take years to repair.

The patients who might have benefited from Dr. Chen's legitimate research paid the ultimate price. Her work on novel therapeutic pathways had shown genuine promise for treating aggressive cancers resistant to current therapies. The retraction not only stopped her research but created a stigma around her entire approach, making other researchers reluctant to pursue similar paths. Pharmaceutical companies that had expressed interest in developing her discoveries withdrew, citing "reputational risk." The therapeutic avenue she had opened was effectively closed, not because the science was flawed but because the publication venue was corrupted.

Dr. Chen's experience illuminates a crisis that extends far beyond individual researchers or isolated incidents of misconduct. Academic publishers have constructed and now operate a fraudulent enterprise that extracts billions from the federal research system while systematically corrupting the scientific knowledge base upon which modern society depends. They have transformed what should be a public trust—the dissemination of scholarly knowledge—into a mechanism for private enrichment that would trigger criminal prosecution in any other industry.

The transformation did not happen overnight. For decades, academic publishing operated as a relatively stable ecosystem where learned societies and university presses disseminated research with modest profit margins and genuine commitment to advancing knowledge. The digital revolution that began in the 1990s promised to reduce costs and expand access. Instead, it triggered a wave of consolidation that concentrated power in the hands of five mega-publishers who now control over 50% of all scientific publications. These companies—Elsevier, Springer Nature, Wiley, Taylor & Francis, and SAGE—have weaponized technology not to democratize knowledge but to perfect extraction mechanisms that would make nineteenth-century robber barons envious.

Consider the economics that would be laughable if not so damaging. In the print era, publishers could legitimately claim substantial costs: paper, printing, binding, warehousing, shipping. A journal issue might cost \$50 to produce and distribute. Today, those same publishers charge \$11,000 for a single article that exists only as a PDF on a server. The marginal cost of digital distribution approaches zero—a few cents in server time and bandwidth. Yet prices have increased exponentially, with some journals seeing 1,000% price increases over two decades while simultaneously eliminating most of the services they once provided.

The Perfect Crime: How Publishers Engineered Extraction

The genius of academic publishing's fraud lies in its exploitation of academia's unique characteristics. Unlike normal markets where buyers and sellers negotiate prices based on value, academic publishing operates through a series of distortions that eliminate market discipline.

First, the authors who provide content do so for free, driven by career necessity rather than compensation. A researcher who spends years and millions in grant funding on a project receives nothing from publishers for the resulting paper. Indeed, they must pay thousands for the privilege of giving away their work.

Second, the peer reviewers who supposedly provide quality control also work for free, motivated by professional obligation and reciprocity. A typical reviewer spends 5-10 hours evaluating a manuscript, providing detailed feedback that improves the work. Publishers capture this value—worth billions in aggregate—without compensation.

Third, editors who manage the process often receive token payments or mere prestige, while their universities subsidize their time through reduced teaching loads. A journal editor might oversee hundreds of papers annually, work worth hundreds of thousands in professional time, for which publishers pay nothing or nominal amounts.

Fourth, the buyers—primarily libraries—cannot refuse the product. When faculty need specific journals for research and teaching, libraries must subscribe regardless of price. This creates what economists call perfectly inelastic demand, where price increases don't reduce consumption.

Fifth, the readers who ultimately consume the research are separated from payment decisions. A scientist downloading a paper doesn't see the \$42 charge their library paid. This disconnect between consumption and payment enables unlimited price escalation.

The Digital Transformation That Enabled Mass Fraud

The shift from print to digital should have democratized academic publishing. The marginal cost of distributing a PDF approaches zero. Storage is essentially free. Global distribution happens instantly. Yet publishers used digitalization to increase both prices and profit margins while degrading service quality.

The first step was bundling. Publishers forced libraries to buy "big deals"—packages of hundreds or thousands of journals, including many of marginal value. Libraries that might have selectively subscribed to 50 essential journals found themselves paying for 500, with costs increasing annually at rates far exceeding inflation. When libraries tried to cancel, publishers threatened to remove access to all journals, including those for which the library had paid millions over decades.

The second step was the transition to "gold" open access, marketed as democratizing knowledge but actually creating new extraction opportunities. Instead of charging readers through subscriptions, publishers now charge authors through Article Processing Charges. The same article that cost \$2,000 to access through subscriptions now costs \$5,000 to publish openly. Publishers double-dip, maintaining subscription revenues while adding APC income.

The third step involved systematic degradation of editorial services while maintaining premium pricing. Copyediting disappeared, replaced by automated formatting that introduces errors. Peer review compressed from months to weeks, ensuring superficial evaluation. Production schedules accelerated to maximize volume over quality. Yet prices continued rising, justified by claims of "editorial excellence" that no longer existed.

The Global Landscape of Exploitation

The international dimensions of academic publishing fraud reveal both its scope and the feasibility of alternatives. While American researchers pay \$11,000 to publish in *Nature*, their German colleagues pay €2,000 for identical services due to government caps. This price discrimination would trigger antitrust action in any other industry but continues unchallenged in academic publishing.

China's response has been to build a parallel publishing ecosystem. Frustrated by Western editorial networks that marginalized Chinese research, the government invested billions in domestic journals. Within a decade, Chinese publications rose from negligible impact to challenging Western incumbents. While concerns about political influence are valid, the speed of development proves that publisher claims about irreplaceable expertise are fiction. When motivated, countries can create publishing infrastructure in years, not decades.

India's experience offers different lessons. As research output exploded with economic development, predatory publishers targeted Indian researchers desperate for publication. The response—criminal prosecution of predatory publishers—demonstrates that academic fraud need not be treated more leniently than other commercial deception. When publishers faced actual jail time rather than academic censure, fraudulent practices declined dramatically.

The Anatomy of Modern Academic Fraud

The systematic nature of academic publishing fraud becomes clear when examining specific mechanisms publishers deploy. Each represents a carefully designed extraction tool that would trigger immediate prosecution in other industries but continues unchallenged in academia due to regulatory capture and institutional inertia.

Consider first the manuscript submission process itself. Authors must format their work according to byzantine publisher specifications that change arbitrarily between journals, even those from the same publisher. This artificial complexity forces researchers to spend days reformatting work for each submission, time that could advance research. Publishers claim these requirements ensure quality, but investigation reveals they serve only to create friction that discourages journal shopping and locks authors into whatever terms publishers dictate.

The submission platforms themselves are designed for extraction rather than efficiency. ScholarOne, Editorial Manager, and similar systems cost millions to develop and maintain, costs passed to universities through increased subscription fees. Yet these platforms offer less functionality than free alternatives like Google Docs. They exist primarily to create switching costs—once a publisher has captured thousands of manuscripts in their proprietary system, migration becomes practically impossible.

The peer review process, marketed as rigorous quality control, has devolved into a facade that provides cover for fraud while delivering minimal value. Publishers tout "rigorous peer review" in marketing materials while operating systems that make genuine review impossible. When a complex manuscript receives reviews within days rather than the weeks required for careful evaluation, the process is theater

rather than scholarship. Yet publishers charge thousands for this "service" that amounts to forwarding emails between authors and volunteer reviewers.

II. The Architecture of Deception: How Publishers Orchestrate Systematic Fraud

Academic publishing fraud operates through carefully constructed mechanisms that exploit every vulnerability in the scholarly communication system. Unlike the opportunistic scams that plague other industries, publishers have engineered systematic deception that transforms fraud from occasional aberration into core business model. Understanding this architecture reveals not random misconduct but deliberate design—a coordinated enterprise that maximizes extraction while minimizing accountability.

The sophistication of this fraud network exceeds that found in most criminal organizations. Publishers have created multiple revenue streams from corruption: they profit from paper mills through volume-based APCs, monetize editorial positions through reciprocal arrangements, and extract federal funds through false claims about service quality. Each mechanism reinforces the others, creating self-perpetuating cycles where fraud becomes more profitable than legitimate operation.

The international scope amplifies this systematic corruption. Publishers exploit regulatory arbitrage between jurisdictions, moving fraudulent operations to countries with weak oversight while maintaining prestige through Western branding. They create subsidiary networks that provide plausible deniability for parent companies while enabling industrial-scale fraud. The resulting enterprise operates across borders with the coordination of multinational corporations but the ethics of organized crime.

What distinguishes academic publishing fraud from other commercial deception is its exploitation of trust relationships fundamental to scientific progress. Researchers must trust that peer review is genuine, that editorial decisions reflect merit, and that publication venues maintain quality standards. Publishers have weaponized this trust, creating facades of scholarly integrity while operating systems designed for maximum extraction rather than knowledge advancement.

The timing of this corruption coincides with academia's increasing dependence on publication metrics for career advancement. As universities tie faculty promotion to publication counts and grant agencies evaluate productivity through bibliometric measures, publishers have positioned themselves as gatekeepers whose approval determines professional survival. This dependency relationship enables exploitation that would be impossible in markets where buyers retain meaningful choice.

The architectural elements of publisher fraud interconnect to create a system more resilient than its individual components. Paper mills provide volume that generates APC revenue. Editorial networks ensure that connected researchers can publish regardless of quality, maintaining the illusion that merit determines outcomes. Exclusive submission requirements prevent competitive pricing and quality comparison. Subscription bundling forces institutional purchases of corrupted content. Each element supports the others, creating structural barriers to reform that have protected fraud for decades.

A. The Quality Fraud: Paper Mills, Bribes, and Industrial-Scale Deception

The foundation of publishers' fraud lies in the disconnect between promised and delivered services. Publishers market journals based on "rigorous peer review," "editorial excellence," and "quality assurance."⁷ Federal agencies rely on these representations when permitting grant funds for publication charges.⁸ Yet evidence reveals systematic failure—often deliberate—to provide these services.

1. The Paper Mill Epidemic

Paper mills—commercial operations producing fraudulent research to order—have industrialized academic fraud. Starting at \$500, researchers can purchase authorship on fabricated papers complete with data, figures, and citations.⁹ These operations have evolved from crude text recycling to sophisticated AI-powered fraud. Modern paper mills employ Large Language Models that generate unique text capable of passing plagiarism detection, while Generative Adversarial Networks create fake microscopy images indistinguishable from real data.¹⁰ They operate citation cartels where fake papers cite each other to boost metrics, and they have developed automated submission systems capable of flooding journals with fraudulent content.¹¹

The scale defies comprehension. Retraction Watch identified over 400 papers from a single paper mill operation.¹² Publishers claim to combat these operations through technological countermeasures, yet their platforms enable mass fraud through API access for bulk submissions, minimal author verification, and automated reviewer assignment that fails to detect expertise mismatches.

The paper mill phenomenon deserves extended analysis as it represents the industrialization of academic fraud at unprecedented scale. What began as isolated cases of researchers purchasing authorship has evolved into a global industry generating billions in revenue while corrupting entire fields of research.

Modern paper mills operate with the sophistication of major corporations. They maintain R&D departments that develop new fraud techniques, sales teams that recruit customers globally, production facilities that mass-produce papers, and quality assurance units that ensure their fraudulent products pass detection systems. Some operations employ hundreds of people and generate tens of millions in annual revenue.

The business model is elegantly criminal. A paper mill charges researchers \$500-5,000 for authorship on a fraudulent paper. The paper is submitted to a journal where the editor—often complicit in the scheme—ensures acceptance. The journal charges the author \$2,000-5,000 in APCs, which are reimbursed by government grants. The paper mill, editor, and publisher all profit while taxpayers fund the entire scheme.

The technological sophistication of modern paper mills would impress Silicon Valley. They use Large Language Models to generate unique text that passes plagiarism detection. They employ Generative Adversarial Networks to create synthetic data and images indistinguishable from genuine research. They operate citation cartels where networks of fake papers cite each other to boost metrics. They maintain databases of compromised reviewer accounts to ensure favorable reviews. They even offer "premium" services where customers can specify their desired results and have papers reverse-engineered to support predetermined conclusions.

Publishers claim to combat paper mills through technological countermeasures, but their actions reveal complicity rather than opposition. Every major publisher maintains sophisticated analytics capable of detecting paper mill signatures: unusual submission patterns, statistical anomalies in data, impossible productivity from single authors, networks of suspicious citations. Yet these tools remain unused or configured to minimize detection. When external pressure forces action, publishers retract thousands of papers simultaneously, proving they knew about the fraud but chose profits over integrity.

The geographical distribution of paper mill operations reveals a global criminal enterprise that exploits economic disparities and regulatory gaps. Major paper mill operations are based in countries with limited research oversight but operate globally through digital platforms. They maintain sales offices in major research centers, production facilities in low-cost jurisdictions, and money laundering operations in financial havens. The sophistication rivals multinational corporations, complete with customer service departments, quality assurance teams, and marketing divisions.

The customer base for paper mills extends beyond individual researchers facing career pressure. Entire institutions in countries where publication metrics determine funding purchase papers in bulk to boost their rankings. Government agencies in nations seeking to demonstrate research prowess become wholesale customers. Pharmaceutical companies seeking to influence medical practice commission papers supporting their products. The paper mill industry's revenue, estimated in the billions annually, rivals legitimate publishing—a parallel economy of fraud operating alongside genuine research.

The technological arms race between paper mills and detection systems resembles cybersecurity battles. As publishers deploy new detection algorithms, paper mills develop countermeasures. When plagiarism detection improves, paper mills use AI paraphrasing. When image analysis advances, paper mills create more sophisticated forgeries. When citation analysis identifies cartels, paper mills create more complex networks. This cat-and-mouse game might seem inevitable, except publishers consistently lag years behind paper mill innovations—a delay that suggests deliberate inaction rather than technical inability.

The infiltration of editorial boards by paper mill operatives represents the ultimate corruption. Paper mills don't just submit fraudulent papers—they place allies in editorial positions to ensure acceptance. These corrupted editors may be knowing participants or unwitting accomplices compromised through various means. Some are bribed directly. Others are blackmailed with evidence of past misconduct. Still others are simply naive academics flattered by editorial invitations they don't realize come from criminal organizations. Once installed, these editors ensure paper mill products receive favorable treatment while legitimate research is rejected to maintain plausible acceptance rates.

2. Editorial Bribery Networks

In 2024, a Science investigation exposed systematic bribery corrupting editorial processes across major publishers.¹³ The investigation documented cryptocurrency payments up to \$20,000 for guaranteed publication, WhatsApp groups coordinating fraudulent special issues, over 50 compromised editors at journals from Elsevier, Wiley, and Springer Nature, and editorial override systems allowing bypass of peer review.

Publisher platforms include audit trails recording every editorial action, yet companies routinely fail to monitor their own systems. This creates plausible deniability while profiting from increased volume.

3. The Retraction Crisis

The consequence is unprecedented: 10,000+ retractions in 2023, up from 1,000 in 2013.¹⁴ Major incidents demonstrate the scale of the problem. Hindawi, a Wiley subsidiary, retracted over 8,000 papers in a single year.¹⁵ IEEE has been forced to retract over 400 conference papers due to peer review manipulation.

Crucially, publishers retain APCs for retracted papers, creating perverse incentives. The more fraud they enable through lax oversight, the more revenue they generate. Only when external pressure forces action do mass retractions occur, always after collecting fees.

B. The Collusion Network: 54 People, 50% Control, 683 Conflicts

The Mindel and Ciriello audit of elite business journals revealed corruption extending beyond individual fraud to systematic market manipulation.¹⁶ Their findings paint a disturbing picture of academic publishing's capture by a small network of insiders.

1. Network Concentration

The concentration of power defies belief: just 54 authors, representing only 2.4% of contributors, have captured 49.5% of publication slots in elite journals.¹⁷ These network members maintain an average of 8.8 conflicted editorial relationships each, and the network's composition is 94.5% male, indicating discriminatory effects that compound the corruption.

The network operates through interlocking directorates that would trigger antitrust prosecution in any other industry. Professor A serves as editor for Journal X while Professor B edits Journal Y. When A submits to Y, acceptance is guaranteed. When B submits to X, reciprocity ensures publication. Both professors pad their publication records, advance their careers, and exclude competitors who lack network connections. The journals maintain high rejection rates by desk-rejecting outsiders while accepting insider work regardless of quality.

The gender composition—94.5% male—reveals how corruption perpetuates discrimination. Women researchers, already facing structural barriers, find themselves excluded from networks that form in private clubs, golf courses, and conference hotel bars. International researchers, particularly from developing nations, cannot access the social capital that determines publication success. Young researchers from working-class backgrounds discover that brilliance matters less than connections formed at elite institutions.

The mechanics of network operation deserve detailed examination as they reveal sophisticated coordination that would trigger conspiracy charges in other industries. The network doesn't operate through explicit agreements—though evidence suggests these exist—but through understood norms and reciprocal expectations that are equally actionable under antitrust law. A senior network member sponsors a junior colleague for an editorial position. That junior member, now indebted, ensures

favorable treatment for the senior's submissions. The senior member reciprocates by accepting the junior's papers in journals they control. Both recommend each other for grants, awards, and speaking opportunities. The cycle perpetuates and expands.

The network's influence extends far beyond direct publication decisions. Network members control the most prestigious awards in their fields, ensuring these honors flow to other members, further cementing their dominance. They dominate grant review panels, directing billions in research funding toward network-affiliated projects while starving innovative work from outsiders. They influence hiring committees, ensuring that network members or their protégés secure the most desirable positions. They control conference organizing committees, guaranteeing prime speaking slots for network members while marginalizing outside voices. This comprehensive control transforms academic fields into closed shops where success depends on network membership rather than merit.

The economic impact is staggering. When network members direct federal grant money to inferior research by allies rather than breakthrough work by outsiders, they misallocate billions in taxpayer funds. When they exclude innovative research from publication, they delay scientific progress by years or decades. When they prevent diverse voices from entering fields, they perpetuate systemic inequalities that violate both moral principles and federal law. The opportunity cost—discoveries that don't happen, treatments that aren't developed, problems that aren't solved—is incalculable but real.

Documentation of network operations has become increasingly sophisticated. Email metadata reveals communication patterns showing coordination before editorial decisions. Calendar data shows meetings between network members preceding suspicious publication patterns. Financial records reveal consulting payments, speaking fees, and other transfers that create reciprocal obligations. Social media connections map the network's structure and evolution. Travel records document conference meetings where coordination occurs. This digital trail transforms suspicion into evidence admissible in court.

2. Conflict Patterns

The audit documented 683 editorial conflicts of interest, with 365 of these involving reciprocal acceptances, representing 53.4% of all conflicts. Perhaps most troubling, the prevalence of conflicts of interest has more than doubled, increasing from 17.9% in 2010 to 41.2% in 2024.

3. Quality Degradation

The impact on scholarly quality is measurable and severe. Papers published through conflicts of interest receive 24% fewer citations than those selected through legitimate peer review, demonstrating that network members' papers are systematically lower quality yet guaranteed publication.

This represents more than market failure—it constitutes organized manipulation violating antitrust law, wire fraud statutes, and potentially RICO.¹⁸

The quality degradation is measurable and severe. Papers published through editorial conflicts receive 24% fewer citations than those selected through legitimate review. This citation gap represents billions in misallocated research funding as inferior work by connected researchers receives grants that should

support genuine innovation. The opportunity cost—breakthrough research that never happens because resources flow to network members—is incalculable.

C. The Conference Paper Scam: Academic Fraud's Volume Business

While journal fraud captures headlines, the conference paper racket operates as academic publishing's volume business, processing hundreds of thousands of fraudulent papers annually through venues that masquerade as legitimate academic gatherings. These conferences, often organized by the same publishers who operate corrupted journals, represent a parallel fraud ecosystem that extracts millions while corrupting the scientific record with even less scrutiny than journal publishing.

The business model is elegantly criminal. Publishers organize "international conferences" in attractive destinations, charging registration fees of \$500-2,000 per participant. They accept virtually any submitted paper, often within hours of submission and without meaningful review. Presenters pay additional fees for publication in conference proceedings. The conferences themselves are often shams—speakers present to empty rooms, sessions are canceled without notice, and keynote speakers listed in promotional materials never agreed to participate. Yet the papers enter databases like IEEE Xplore or Scopus, where they contaminate the scientific literature and inflate publication metrics.

The scale defies belief. A single conference might accept 500 papers, generating \$1 million in registration and publication fees. Publishers organize dozens of such conferences annually, creating a multi-million dollar fraud stream. The IEEE alone has been forced to retract hundreds of conference papers after belated discovery of peer review manipulation. Yet publishers continue operating these conference mills, claiming inability to ensure quality while profiting from quantity.

The victims extend beyond individual researchers to entire fields. Computer science, particularly, suffers from conference paper contamination. When paper mills flood conferences with AI-generated content about machine learning or blockchain, they don't just waste money—they make it impossible for genuine researchers to identify legitimate advances. Literature reviews become exercises in separating wheat from chaff, with the chaff overwhelming. Graduate students waste years pursuing dead ends based on fraudulent conference papers. The entire field's progress slows as researchers spend more time identifying fraud than advancing knowledge.

D. The Consumer Fraud: Premium Prices for Fraudulent Services

The price-quality disconnect in academic publishing mirrors successful consumer fraud cases across industries.

1. The Resort Fee Parallel

Hotels advertising \$100 rooms then adding mandatory \$30 "resort fees" face lawsuits and legislation.¹⁹ Publishers engage in an identical but more egregious practice. They advertise journal prestige and "rigorous peer review," wait until after manuscript acceptance to reveal Article Processing Charges of \$5,000 or more, and then hold manuscripts hostage if authors refuse payment. State attorneys general have successfully sued hotels for this practice, and academic publishers engaging in identical conduct at larger scale deserve similar scrutiny.²⁰

The price-quality disconnect in academic publishing mirrors frauds successfully prosecuted in other industries, providing templates for legal action. These parallels are not mere analogies but legally actionable similarities that establish precedent for prosecution.

The hotel resort fee scandal provides the clearest parallel. Hotels advertised attractive nightly rates—say \$99—to draw customers, then added mandatory "resort fees" of \$30-50 at checkout. These fees supposedly covered amenities like pools, gyms, and WiFi. Investigation revealed the pools were often closed, gyms contained broken equipment, and WiFi barely functioned. State attorneys general from Nevada to New York sued major chains, securing millions in settlements and injunctions requiring transparent pricing.

Academic publishers engage in identical but more egregious deception. They advertise journal prestige and "rigorous peer review" to attract submissions. Only after acceptance—when authors have invested months in the process—do they reveal APCs that can exceed \$10,000. The promised peer review often consists of cursory examination by conflicted editors or even paper mill confederates. Yet publishers keep the money whether they deliver promised services or not.

2. The Streaming Service Squeeze

Netflix's practice of doubling prices while cutting content triggered customer revolt and regulatory scrutiny.²¹ Publishers have perfected this model to an extreme degree. In 2010, the average APC was €858 with meaningful editorial services provided. By 2024, average APCs exceed €3,000 while services have been replaced with automated systems and paper mills, representing a 250% price increase for demonstrably degraded service.²² The streaming precedent shows courts will examine price-quality relationships when sellers make specific service promises.

Publishers executed the identical strategy with worse outcomes. Average APCs increased from under €1,000 in 2010 to over €3,000 in 2024, a 200% increase. During this same period, editorial services were eliminated, peer review was compressed to meaninglessness, and quality control disappeared. Publishers justify price increases by citing "technological investments" that actually reduced their costs while degrading service.

3. The Premium Gym Fraud

Fitness centers charging premium fees while maintaining broken equipment face consumer lawsuits.²³ Publishers charging \$11,000 APCs provide services that are equally substandard. They have replaced human editorial judgment with automated systems, compressed review times to an average of 20 days for complex manuscripts that require months of careful analysis, eliminated copyediting such that authors report numerous errors in published versions, and allowed peer review to be compromised by bribery and paper mills. The parallel is exact: premium pricing for substandard service equals consumer fraud.

The premium gym membership fraud cases provide particular relevance. Across America, fitness chains charging \$150-200 monthly memberships faced lawsuits for maintaining broken equipment, eliminating

promised classes, and failing to provide advertised amenities. Courts consistently held that premium pricing creates heightened obligations—businesses charging luxury prices must deliver luxury services.

Publishers charging \$11,000 APCs while providing automated processing, corrupted peer review, and error-filled production engage in precisely this fraud. The premium pricing explicitly promises premium service. Journal websites tout their "rigorous standards," "distinguished editorial boards," and "meticulous production processes." When investigation reveals the standards are fictional, the boards are corrupted, and the production is automated, the fraud is complete.

III. Following the Federal Money: How Taxpayers Fund Scientific Corruption

The true scope of academic publishing fraud becomes visible only when following the money trail from federal appropriations to publisher bank accounts. What emerges is a systematic diversion of taxpayer funds intended for scientific discovery into private profits generated through deliberate deception. This is not incidental overcharging but coordinated extraction that transforms the federal research enterprise into a subsidy program for fraudulent commercial operations.

The financial architecture enabling this theft exploits a fundamental disconnect in federal funding: researchers who make spending decisions don't bear the costs, institutions that pay the bills don't control the purchases, and taxpayers who fund the system have no visibility into how their money is spent. Publishers have engineered their business model to exploit each gap in this chain of accountability, creating extraction mechanisms that would be impossible in normal commercial markets.

Federal research agencies operate under the assumption that publication costs represent legitimate expenses necessary for disseminating taxpayer-funded discoveries. This reasonable presumption has been weaponized by publishers who recognize that federal reimbursement removes normal market constraints on pricing. When researchers can charge unlimited publication fees to government grants, publishers face no competitive pressure to justify their costs or demonstrate value.

The scale of federal exposure grows larger each year as agencies implement open access mandates that effectively require payment to publishers. The December 31, 2025 deadline for immediate public access to federally-funded research creates unprecedented opportunity for extraction, potentially forcing hundreds of millions in additional taxpayer funds to publishers whose review processes are documented as corrupted. Without immediate intervention, federal policy intended to democratize access to public research will instead subsidize the largest academic fraud in history.

International comparisons reveal the artificial nature of U.S. vulnerability to publisher extraction. While American researchers pay \$11,000 to publish in journals where German authors pay €2,000 for identical services, the difference reflects not quality variations but regulatory capture. Other nations have recognized academic publishing as a public utility requiring price regulation, while the United States treats it as a free market despite overwhelming evidence of systematic fraud and monopolistic control.

The federal government possesses both legal authority and moral obligation to recover funds extracted through fraudulent means. Every dollar flowing from research grants to corrupted publishers represents a False Claims Act violation waiting for prosecution. The challenge lies not in legal theory but in political

will—recognizing that academic prestige provides no immunity from commercial fraud statutes and that peer review corruption constitutes criminal theft of public funds

A. The APC Pipeline: From Grants to Publisher Profits

The fraud's scope becomes clear when following federal funds through the system.

1. The Money Flow

The federal government invests approximately \$170 billion annually in research and development.²⁴ This investment produces approximately 146,000 NIH-funded publications each year, with average APCs ranging from \$3,000 to \$5,000 per paper, creating an annual federal exposure of \$400-600 million flowing directly to publishers.²⁵ Every dollar represents taxpayer funds diverted from research to publisher profits through fraudulent claims of "necessary and reasonable" services.

The mechanism by which publishers extract billions from taxpayers deserves detailed examination as it reveals both the scope of fraud and the legal remedies available. Every dollar flowing from federal coffers to publisher profits through corrupted channels represents a False Claims Act violation waiting for prosecution.

The journey begins with congressional appropriations. Each year, Congress allocates approximately \$170 billion for research and development, the world's largest investment in advancing human knowledge. These funds flow through agencies like NIH (\$47 billion), NSF (\$10 billion), DOE (\$8 billion), and DOD (\$15 billion for basic research). Each agency distributes funds through competitive grants intended to support breakthrough research.

Grant recipients—primarily university researchers—must disseminate their findings through publication. Federal policy not only permits but encourages using grant funds for publication costs, viewing dissemination as essential to the research mission. This reasonable policy has been weaponized by publishers who recognize that federal reimbursement removes normal market constraints on pricing.

The numbers are staggering. NIH alone funds approximately 146,000 publications annually. With average APCs now exceeding \$3,000 and premium journals charging up to \$11,000, annual federal exposure ranges from \$400 million to \$1.6 billion. This represents taxpayer money diverted from actual research—laboratory equipment, graduate student support, clinical trials—to publisher profits through fraudulent claims of "necessary and reasonable" services.

2. Universities as Enablers: How Academic Institutions Facilitate Publisher Fraud

Universities bear significant responsibility for enabling publisher fraud through policies and practices that prioritize metrics over merit. The "publish or perish" culture that universities created and maintain provides the demand that fraudulent publishers exploit. When institutions evaluate faculty primarily through publication counts in "prestigious" journals, they create existential pressure that drives researchers into the arms of predatory publishers. When they reimburse APCs without scrutiny, they facilitate the flow of funds to fraudulent enterprises. When they ignore obvious signs of publication fraud among their faculty, they become complicit in corruption.

The perverse incentives universities create are carefully documented. Promotion guidelines that specify minimum publication numbers incentivize quantity over quality. Tenure requirements that emphasize journal impact factors drive researchers to venues controlled by editorial cartels. Salary bonuses tied to publication metrics—common in many countries—create direct financial incentives for fraud. Some institutions go further, offering cash payments of \$10,000 or more for publications in high-impact journals, creating a market where the reward for successful fraud exceeds the cost of paper mill services.

Universities' financial entanglements with publishers create conflicts of interest that prevent reform. Publishers donate millions to universities through library "partnerships," research "grants," and conference "sponsorships." They fund endowed chairs whose occupants unsurprisingly support publisher-friendly policies. They provide "educational" grants that create dependency relationships. They offer discounted subscription packages that seem beneficial but lock institutions into long-term relationships. These financial ties compromise universities' ability to challenge publisher fraud even when it harms their own researchers.

The administrative burden of managing publisher relationships consumes resources that could support research. Libraries employ teams to negotiate subscriptions, manage access, and process invoices. Research offices maintain staff to handle publication fees, ensure compliance, and manage disputes. Faculty spend countless hours reformatting papers for different publishers' arbitrary requirements. The administrative overhead of the current system costs universities millions annually—money that could fund research rather than bureaucracy.

3. The Regulatory Framework

Federal regulations are unambiguous. Under 2 C.F.R. § 200.403, costs charged to federal awards must meet four essential criteria: they must be necessary for research dissemination, reasonable in that a "prudent person" would pay them, allocable to the specific funded project, and allowable under award terms.²⁶ Charging \$11,000 for corrupted peer review violates every criterion. No prudent person would pay luxury prices for fraudulent services.

The regulatory framework makes the fraud actionable. Under 2 C.F.R. § 200.403, costs charged to federal awards must be necessary, reasonable, allocable, and allowable. No reasonable person aware of paper mill infiltration, editorial bribery, and 90% acceptance rates in special issues would pay \$11,000 for corrupted peer review. The "necessary" standard is equally violated—when French researchers publish for free in diamond open access journals while Americans pay thousands for identical dissemination, the costs are clearly unnecessary.

4. The Extraction Mechanism

Publishers exploit researchers' career pressures through a carefully constructed system. Tenure requirements demand publications in "prestigious" journals, grant renewals depend on publication records, exclusive submission rules prevent researchers from seeking competitive offers, and federal payment through grants removes price sensitivity. This creates perfect conditions for fraud: sellers with market power, buyers with no choice, and third-party payment removing market discipline.

The extraction mechanism exploits every vulnerability in the academic ecosystem. Tenure requirements demand publication in "prestigious" journals, creating existential pressure to pay whatever publishers demand. Grant renewals depend on publication records, forcing researchers to choose between paying extortionate APCs or losing future funding. Exclusive submission requirements prevent price shopping, transforming what should be a competitive market into serial monopolies. Federal reimbursement removes price sensitivity, enabling unlimited escalation.

The psychological manipulation publishers employ to extract payments deserves special attention as it reveals deliberate exploitation of researchers' vulnerabilities. Publishers understand that academic careers depend on publication metrics. They know that tenure clocks create time pressure that makes researchers desperate. They recognize that grant renewals require demonstrated productivity through publications. They exploit the fact that most researchers have never operated in normal commercial markets where negotiation is possible. This knowledge is weaponized to create extraction mechanisms that would be recognized as predatory in any other context.

The timing of fee disclosure is deliberately manipulative. Publishers wait until authors have invested months in the submission process, responded to multiple rounds of reviews, and made emotional commitments to publication before revealing fees. This is not oversight but strategy—internal publisher documents reveal deliberate policies to delay fee disclosure until authors are psychologically committed. By the time researchers learn they must pay \$5,000 or more, they face the sunk cost fallacy: abandon months of work or pay the ransom. Most pay.

Publishers have also mastered the art of price discrimination, charging different amounts to different researchers for identical services. Researchers from wealthy institutions pay full price. Those from developing countries receive "discounts" that still exceed reasonable costs. Authors with large grants are quoted higher fees than those with limited funding. This price discrimination would violate antitrust law in other industries but continues unchallenged in academic publishing because researchers don't compare prices—exclusive submission rules prevent them from discovering what others pay.

The role of institutional dysfunction in enabling extraction cannot be ignored. Universities evaluate faculty based on publication quantity in "prestigious" journals, creating pressure to pay whatever publishers demand. Promotion committees count publications without considering their cost, incentivizing faculty to externalize expenses to grants. Libraries purchase subscriptions without faculty input, then faculty publish without considering library costs. This disconnect between decision-makers and payers enables unlimited price escalation. Publishers have expertly exploited these institutional failures to create a system where no one with power to change the system bears its costs.

B. Federal Policy Convergence: The 2025 Inflection Point

Multiple federal policy initiatives are converging to create an unprecedented moment of both vulnerability and opportunity for academic publishing reform. The confluence of open access mandates, research integrity enforcement, and international regulatory pressure creates conditions that could either accelerate fraud through increased federal subsidies or trigger comprehensive transformation through coordinated intervention. The timing of these policy changes coincides with mounting evidence

of systematic publisher corruption, creating a unique window for legal action that may not recur if the moment passes without decisive enforcement.

1. The Nelson Memo Mandate

The August 2022 OSTP memorandum (the “Nelson Memo”) requires immediate public access to federally-funded research by December 31, 2025.²⁷ This dramatically increases fraud exposure in several ways. The elimination of embargoes means research must be immediately accessible, creating pressure for publishers to push Gold Open Access models with high fees. Federal agencies are effectively mandating payment to what have been revealed as fraudulent enterprises. Without intervention, the mandate becomes a gift to predatory publishers, forcing researchers to pay for corrupted services.

2. NIH's Integrity Initiatives

NIH has moved aggressively against fraud through multiple initiatives. The agency has banned the use of generative AI in peer review through NOT-OD-23-149, deployed AI technology to identify fraudulent submissions, and established enforcement mechanisms where violations trigger debarment and potential prosecution.²⁸ Yet publishers openly market AI-accelerated review while operating systems enabling paper mills. The disconnect between federal requirements and publisher practices creates clear False Claims Act liability.

3. International Contrasts

Other nations have implemented protections that expose U.S. vulnerability. Germany has maintained a €2,000 APC cap since 2011, the UK limits reimbursement to £4,750 for funded research, France's CNRS actively discourages all APC payment, and the EU's Plan S eliminated hybrid journal funding entirely.²⁹ The U.S. stands alone in allowing unlimited extraction from public funds, creating competitive disadvantage as research dollars fund foreign publisher profits rather than domestic science.

C. International Benchmarks: How Other Nations Limit the Fraud

1. The German Model: Hard Caps

Deutsche Forschungsgemeinschaft (DFG) implemented €2,000 caps recognizing several fundamental truths about academic publishing. They understood that actual publishing costs are far lower than charged prices, that market discipline requires limits to prevent exploitation, and that public funds demand accountability.³⁰ The result has been striking: German APCs stabilized while U.S. charges exploded exponentially.

2. Plan S: Transparency as Disinfectant

The European coalition has required comprehensive reforms that expose the artificial nature of publisher pricing. Publishers must provide detailed cost breakdowns for all APCs, are prohibited from hybrid double-dipping where they charge both subscriptions and APCs, must offer repository routes for compliance, and face mandatory price transparency across all their operations.³¹ Publishers have fled markets with these requirements, revealing that their business model depends fundamentally on opacity.

3. The French Revolution: Diamond Open Access

CNRS promotes journals where neither authors nor readers pay, demonstrating a radically different model. These journals operate through community-supported infrastructure, properly credited volunteer editorial labor, technology that reduces costs to marginal levels, and quality maintained through mission alignment rather than profit maximization.³² This proves that the "necessary" costs publishers claim are entirely fictional.

IV. Existing Remedies and Their Limitations

Before outlining comprehensive legal reform, it is essential to acknowledge existing efforts to address academic publishing problems and explain why they prove insufficient for the scale of fraud documented here. Various stakeholders have implemented partial remedies that, while well-intentioned, fail to address the systematic nature of publisher exploitation and in some cases inadvertently enable continued fraud.³³ Understanding these limitations demonstrates why comprehensive legal intervention is necessary rather than merely helpful.

A. Current Litigation: The Uddin Antitrust Challenge

The most significant existing legal challenge to academic publishing practices is UCLA neuroscientist Lucina Uddin's September 2024 antitrust lawsuit against six major publishers.³⁴ Filed in the U.S. District Court for the Eastern District of New York, the case alleges that Elsevier, Springer Nature, Taylor & Francis, Sage, Wiley, and Wolters Kluwer operate an illegal cartel that exploits scholars' dependence on journal prestige while extracting billions in profits from free academic labor.³⁵ The amended complaint, filed November 15, 2024, expanded to include additional plaintiffs and seeks to represent hundreds of thousands of U.S. academics who have performed peer review or submitted manuscripts since September 2020.³⁶

The Uddin lawsuit alleges three interconnected Sherman Act violations that collectively constitute either per se violations or violations under rule of reason analysis.³⁷ First, the "Unpaid Peer Review Rule" allegedly fixes the price of peer review services at zero across the industry, with publishers coercing scholars by "expressly linking their unpaid labor with their ability to get their manuscripts published."³⁸ Second, the "Single Submission Rule" allegedly prevents competition for manuscripts by requiring exclusive submission, "which substantially reduces competition by removing incentives to review manuscripts promptly and publish meritorious research quickly."³⁹ Third, the "Gag Rule" allegedly restricts information sharing during peer review, with publishers behaving "as though the scientific advancements set forth in the manuscripts are their property."⁴⁰

While the Uddin lawsuit represents a creative legal strategy, it differs fundamentally from the comprehensive approach advocated in this Article. The antitrust claims focus on zero compensation for peer review and exclusive submission requirements, but they do not address the systematic fraud in peer review quality that makes current APC charges fraudulent regardless of submission rules. A publisher could theoretically comply with any Uddin remedies while continuing to charge \$11,000 for corrupted peer review involving paper mills and editorial bribes. The case's emphasis on unpaid labor,

while economically significant, misses the more serious legal violations involving fraud against federal funding agencies.

Moreover, the Uddin plaintiffs must overcome significant legal hurdles that do not apply to the fraud-based theories advanced here. Antitrust law requires proving explicit agreement rather than parallel conduct, demanding evidence of active conspiracy rather than systematic deception.⁴¹ The defendants' May 5, 2025 motion to dismiss argues that "challenged practices have been commonplace in scholarly publishing for decades" and reflect "rational, independent conduct" rather than anticompetitive agreements.⁴² Even if successful, antitrust remedies would address market structure without necessarily stopping the systematic fraud that enables extraction of federal funds through false claims about peer review quality.

B. Current University-Level Responses

Many universities have attempted to address publishing costs through negotiated agreements with publishers, open access policies, and support for alternative publication venues.⁴³ These efforts, while reducing costs for individual institutions, fail to address the underlying fraud and may actually enable continued exploitation. University consortia like the California Digital Library have negotiated "read-and-publish" agreements that provide both access and publication rights for fixed fees.⁴⁴ While these agreements appear to control costs, they often involve non-disclosure clauses that prevent price transparency and may lock institutions into long-term relationships with publishers engaged in systematic fraud.

The University of California's 2019-2021 Elsevier boycott exemplified growing institutional resistance to subscription costs but ultimately resulted in a negotiated settlement that may have increased long-term publisher revenues.⁴⁵ The boycott's conclusion without addressing underlying fraud in peer review processes demonstrates the limitations of even aggressive institutional action when publishers retain control over prestige mechanisms that determine faculty careers.

Institutional open access mandates, adopted by over 100 universities and research institutions, require faculty to deposit publications in institutional repositories.⁴⁶ However, these mandates typically include "opt-out" provisions that allow faculty to comply with publisher embargo periods, undermining their effectiveness.⁴⁷ More fundamentally, these policies address access without confronting the underlying fraud in peer review and pricing, allowing publishers to continue extracting federal funds through corrupted APCs while providing token open access compliance.

University support for alternative publication venues, including institutional repositories and open access journals, represents a positive development but remains insufficient to challenge publisher dominance.⁴⁸ Faculty promotion and tenure decisions continue to emphasize publication in "prestigious" journals controlled by major publishers, creating career pressure that overwhelms institutional preferences for alternatives.⁴⁹ Without fundamental reform of academic evaluation systems, voluntary alternatives cannot compete with venues that determine career advancement.

C. Federal Agency Initiatives

Federal funding agencies have implemented various policies intended to increase access to publicly funded research, but these measures fail to address the systematic fraud enabling extraction of federal funds. The NIH Public Access Policy, requiring deposit of funded research in PubMed Central, has improved access but allows publishers to maintain subscription revenues and charge additional APCs for immediate open access.⁵⁰ This "hybrid" model actually increases total costs by enabling double-dipping without addressing underlying fraud in peer review processes.

The National Science Foundation's Public Access Plan similarly focuses on access rather than addressing the fraud underlying publication charges.⁵¹ By allowing unlimited APC reimbursement from federal grants without requiring verification of actual services provided, these policies effectively subsidize publisher fraud with taxpayer funds. The December 2025 implementation of broader open access mandates under the Nelson Memo risks accelerating this subsidy unless coupled with fraud prevention measures outlined in this Article.⁵²

Agency efforts to address research misconduct through the Office of Research Integrity and similar bodies focus primarily on researcher behavior rather than publisher conduct that enables and profits from fraud.⁵³ While these investigations occasionally uncover editorial corruption, they lack authority to address systematic publisher practices or recover funds extracted through fraudulent means. The narrow focus on individual misconduct cases misses the forest of systematic publisher fraud for the trees of isolated researcher violations.

D. International Reform Efforts

International initiatives like Plan S have achieved greater success in constraining publisher behavior but remain limited in scope and enforcement mechanisms.⁵⁴ Plan S requirements for immediate open access and APC transparency have forced publishers to create compliant publication options, demonstrating the effectiveness of coordinated pressure. However, Plan S applies only to European funding and lacks enforcement mechanisms to address fraud in peer review or editorial conflicts of interest.

The German Project DEAL negotiations successfully constrained publisher pricing through collective bargaining and willingness to cancel subscriptions.⁵⁵ These agreements demonstrate that publishers will accept lower revenues rather than lose access to major markets, providing precedent for more aggressive negotiation strategies. However, DEAL agreements remain confidential and may include provisions that actually increase long-term publisher revenues through guaranteed volume commitments.

France's national strategy of promoting "diamond" open access—where neither authors nor readers pay—offers the most promising alternative model but remains limited in global influence.⁵⁶ French research agencies actively discourage APC payment and support community-owned publication infrastructure. While this approach successfully reduces publisher extraction from French taxpayers, it cannot address global fraud patterns or protect researchers in countries without similar policies.

E. Professional Society Responses

Academic professional societies have begun responding to publishing crisis through various initiatives, but these efforts remain constrained by dependencies on publisher partnerships and revenue-sharing agreements. Since 2020, at least 28 mass resignations of journal editorial boards have occurred, representing dramatic protests against publisher practices. However, these resignations often result in cosmetic changes rather than fundamental reform, with publishers typically responding by appointing new editors and implementing superficial policy changes while maintaining underlying business models that incentivize fraud.

Some societies have reclaimed journals from commercial publishers, but these efforts often involve substantial financial settlements that reward rather than punish previous extraction. Other societies maintain revenue-sharing agreements with publishers that create conflicts of interest when addressing fraudulent practices. The "Cost of Knowledge" protest, signed by over 20,000 researchers boycotting Elsevier, demonstrates widespread frustration but lacks enforcement mechanisms to compel systematic change.⁵⁷

The "450 Movement" advocating for \$450 peer review payments represents an interesting attempt to address unpaid labor, but it fails to address the systematic fraud that makes current APCs illegitimate regardless of reviewer compensation.⁵⁸ Paying reviewers while publishers continue operating paper mills and accepting editorial bribes would legitimize rather than reform the corrupted system.

F. Library and Consortium Actions

Academic libraries have organized collective action through consortia like the International Association of Scientific, Technical and Medical Publishers, but these efforts focus primarily on pricing rather than addressing underlying fraud. Consortium negotiations may achieve modest cost reductions but often involve multi-year commitments that guarantee publisher revenues regardless of service quality or ethical violations. The non-disclosure clauses standard in these agreements prevent transparency about pricing and terms, enabling continued price discrimination and fraud.

Library-supported initiatives like SPARC (Scholarly Publishing and Academic Resources Coalition) provide valuable advocacy and education but lack enforcement authority to address systematic fraud.⁵⁹ These organizations document publisher misconduct and promote alternatives but cannot compel changes in business practices or recover funds extracted through fraudulent means. Without legal backing, advocacy organizations can raise awareness but cannot force accountability.

G. Technology Platform Responses

Various technology platforms have emerged to address specific aspects of publishing dysfunction, but these remain constrained by publisher control over essential infrastructure and prestigious venues. Preprint servers like arXiv and bioRxiv enable immediate dissemination without publisher mediation, but career advancement still depends on publication in traditional journals controlled by commercial publishers.⁶⁰ Post-publication peer review platforms like PubPeer expose fraudulent publications but cannot prevent initial publication or recover APCs paid for corrupted content.

Blockchain-based initiatives promise to address peer review fraud through tamper-proof records, but these remain experimental and face resistance from publishers who profit from opacity. Open review platforms demonstrate superior quality control but struggle to achieve adoption when faculty evaluation systems continue to prioritize traditional publications. Technology solutions alone cannot overcome the systematic incentives that drive faculty toward exploitative publishers.

H. Why Existing Remedies Fall Short

The fundamental limitation of existing remedies is their focus on symptoms rather than causes. The Uddin antitrust lawsuit addresses market structure but not the fraud that makes current charges illegitimate. University negotiations may reduce immediate costs but legitimize continued extraction at lower rates. Federal access policies may improve dissemination but subsidize fraudulent peer review through unlimited APC reimbursement. International initiatives may constrain publisher behavior in specific regions but allow continued exploitation elsewhere. Professional society actions may achieve symbolic victories but lack enforcement authority to prevent systematic fraud.

Most critically, existing remedies fail to address the criminal dimension of publisher conduct. When publishers knowingly charge \$11,000 for peer review they know is corrupted, they engage in fraud that demands criminal prosecution, not negotiated settlements. When editorial networks systematically exclude merit-based research to favor insider publications, they violate antitrust laws that require structural remedies, not voluntary compliance programs. When paper mills infiltrate journals while publishers profit from the resulting APCs, they operate criminal enterprises that warrant RICO prosecution, not academic censure.

The integrity crisis exemplifies these limitations. Despite over 10,000 paper retractions in 2023—a record high—and documented editorial bribery up to \$20,000, existing remedies provide no mechanism for recovering funds extracted through fraudulent peer review or preventing future fraud. Publishers report being "under siege" from paper mill submissions while continuing to profit from the APCs paid for corrupted content. The industrialization of academic fraud, particularly from China, Iran, Russia, and Saudi Arabia, demands law enforcement responses that existing academic remedies cannot provide.

The inadequacy of existing remedies actually demonstrates the necessity of comprehensive legal intervention. The fact that universities, funding agencies, international coalitions, professional societies, libraries, technology innovators, and even antitrust litigation have all attempted reform without achieving systematic change proves that voluntary measures are insufficient. Publisher profits continue growing, fraud continues accelerating, and extraction from federal funds continues increasing despite decades of reform efforts. Only legal intervention with enforcement authority can compel the fundamental changes necessary to restore integrity to scholarly communication.

I. Integration with Proposed Legal Remedies

The legal framework outlined in this Article builds upon but transcends existing remedies by addressing root causes rather than symptoms. False Claims Act litigation would recover funds extracted through fraud while creating deterrent effects that voluntary negotiations cannot achieve. Consumer protection enforcement would prohibit deceptive practices rather than merely documenting them. Antitrust

remedies would restructure markets to prevent fraud rather than accommodating it at negotiated rates. Criminal prosecution would impose consequences proportional to the harm caused rather than treating systematic fraud as an academic policy dispute.

The Uddin lawsuit, while limited in scope, could complement rather than compete with fraud-based enforcement. Successful antitrust remedies eliminating exclusive submission could create competitive pressure that makes fraud detection easier and more economically damaging to publishers. Conversely, fraud prosecutions that expose the systematic corruption underlying high APCs could strengthen antitrust arguments about unreasonable restraints on trade. The two approaches attack different aspects of the same exploitative system and could reinforce each other if properly coordinated.

Existing remedies, while insufficient alone, could support and amplify legal enforcement. University consortia could coordinate evidence collection for litigation rather than merely negotiating better terms for continued exploitation. Federal access policies could specify acceptable peer review standards rather than subsidizing any publication claiming to provide such services. International initiatives could share enforcement resources and prevent publishers from playing jurisdictions against each other. Professional societies could support whistleblowers and provide expert testimony rather than limiting themselves to symbolic protests.

The comprehensive approach advocated here does not dismiss existing efforts but recognizes their limitations and integrates them into a more powerful framework for change. Legal enforcement provides the enforcement authority that existing remedies lack, while existing remedies provide the infrastructure and expertise that legal enforcement requires. Together, they create the comprehensive pressure necessary to dismantle systematic fraud and create sustainable alternatives that serve science rather than shareholders.

V. The Legal Arsenal: Multiple Pathways to Justice

The transformation of academic publishing from scholarly service to criminal enterprise demands a proportional legal response. The fraud is not subtle—publishers openly charge \$11,000 for services they know are corrupted, operate networks that systematically exclude merit-based research, and enable paper mills that flood journals with fabricated science. What has protected them is not the complexity of their schemes but the assumption that academic contexts somehow exempt commercial actors from legal accountability. This assumption is false.

The legal system provides multiple, overlapping remedies for systematic fraud, each targeting different aspects of publisher misconduct. These are not theoretical possibilities but tested frameworks that have dismantled fraud in industries from healthcare to hospitality. The False Claims Act alone has recovered over \$75 billion for taxpayers since 1986, with recoveries accelerating as prosecutors recognize its application to novel frauds. Consumer protection statutes have forced transparency in industries that thrived on deception. Antitrust law has broken monopolies that seemed invulnerable. Criminal prosecution has sent executives to prison who believed themselves untouchable.

The question is not whether existing law reaches academic publishing fraud—it clearly does—but which combination of remedies will most effectively dismantle the corrupt enterprise while preventing its

reconstitution. The answer requires understanding both the specific mechanisms of publisher fraud and the proven strategies for attacking similar schemes in other industries. Each legal avenue offers unique advantages: the False Claims Act's treble damages create massive financial liability, consumer protection laws enable coordinated state enforcement, antitrust remedies can restructure entire markets, and criminal prosecution sends the ultimate deterrent message.

The timing for legal action has never been more favorable. Courts increasingly recognize that digital age frauds require aggressive remedies. Prosecutors have developed expertise in complex financial schemes. Whistleblower programs have proven effective at generating insider evidence. Public anger at corporate exploitation has created political will for enforcement. The convergence of these factors with documented evidence of systematic publisher fraud creates a unique moment when coordinated legal action can achieve transformative results.

A. False Claims Act: The Nuclear Option for Federal Fraud

The FCA provides the most powerful remedy for systematic APC fraud, with recent precedents establishing clear pathways to publisher liability.

1. The Escobar Framework Applied

Universal Health Services v. United States ex rel. Escobar established that submitting claims while concealing material noncompliance creates FCA liability.⁶¹ For publishers, the application is straightforward. The material requirement is that publication costs be "necessary and reasonable."⁶² Publishers knowingly violate this by charging \$11,000 for corrupted peer review. The government would refuse payment if aware of the fraud, and researchers rely on publisher misrepresentations when selecting journals. Every APC reimbursement from federal grants potentially triggers FCA liability when publishers know their peer review is compromised.

The False Claims Act provides the nuclear option for addressing publisher fraud. With treble damages and per-violation penalties now exceeding \$27,000, a publisher processing hundreds of federally-funded fraudulent papers faces potential liability in the hundreds of millions. The Duke University settlement—\$112.5 million for research misconduct affecting federal grants—establishes clear precedent that academic fraud triggers massive liability.

The elements map perfectly onto publisher conduct. Publishers cause the submission of false claims when universities report APCs as legitimate grant expenses. The fraud is material—no federal agency would reimburse \$11,000 for peer review they knew was corrupted by paper mills and editorial bribes. Publishers act knowingly—their internal analytics reveal fraud they choose to ignore. The causation is clear—but for publisher misrepresentations about peer review quality, federal funds would not flow to corrupted journals.

2. Damages Calculation

The financial exposure is staggering. Single damages represent the excess of APCs over reasonable costs, approximately \$500-1,000 per article. Trebling produces \$13,500 per fraudulent article. Adding per-claim penalties of \$13,946 to \$27,894 (2024 rates) brings total exposure exceeding \$40,000 per paper.⁶³ A

publisher charging \$5,000 APCs for \$500 services faces \$13,500 in treble damages plus approximately \$20,000 in penalties per paper. With hundreds of federally-funded papers, liability quickly reaches tens of millions.

Consider a concrete example: A major publisher processes 1,000 federally-funded papers annually through journals with documented paper mill infiltration or editorial corruption. If the reasonable cost of legitimate peer review and publication is \$1,000 but the publisher charges \$5,000:

- Single damages: $\$4,000 \times 1,000$ papers = \$4 million
- Treble damages: \$12 million
- Per-claim penalties: $\$20,000 \times 1,000$ = \$20 million
- Total exposure: \$32 million for one year's publications

Given the six-year statute of limitations and potential for tolling based on fraudulent concealment, a single publisher could face liability exceeding \$200 million.

3. The Duke Precedent

Duke University's \$112.5 million FCA settlement for research misconduct proves the government will pursue academic fraud aggressively.⁶⁴ Duke's fraud involved data fabrication in grant applications. Publishers' fraud—charging for peer review they don't provide—is equally actionable and more systematic.

The Duke case establishes several crucial precedents applicable to publishers. First, academic context doesn't diminish fraud consequences—the government pursued Duke as aggressively as any commercial defendant. Second, systematic patterns multiply liability—Duke's settlement reflected not just individual instances but institutional failures. Third, reputational damage doesn't prevent prosecution—Duke's prestige provided no shield. Publishers engaging in more systematic fraud at larger scale face proportionally greater liability.

4. Whistleblower Incentives

The FCA's qui tam provisions award 15-30% of recovery to whistleblowers.⁶⁵ For a \$50 million settlement, relators receive \$7.5-15 million. This incentivizes insiders to expose paper mill arrangements, editorial bribery networks, retraction cover-ups, and fraudulent pricing schemes.

Whistleblower incentives could unleash a flood of insider information. The qui tam provisions award 15-30% of recovery to those who expose fraud. For a \$100 million settlement, whistleblowers receive \$15-30 million. Editorial board members who witnessed corruption, publisher employees who saw quality reports buried, researchers who documented paper mill infiltration—all could become millionaires by exposing fraud. The statute's anti-retaliation provisions protect whistleblowers from publisher blacklisting, while its six-year statute of limitations allows recovery for fraud dating back to 2018.

B. Lanham Act and Consumer Protection: The Price-Quality Disconnect

The systematic fraud perpetrated by academic publishers creates actionable violations under multiple consumer protection frameworks that courts have successfully applied to comparable deceptions in other industries. The price-quality disconnect that defines academic publishing—charging premium prices for deliberately degraded services—mirrors fraudulent schemes that have triggered massive liability in hospitality, transportation, telecommunications, and financial services. What distinguishes academic publishing is not the complexity of its deception but the audacity with which it operates, exploiting scholarly prestige to avoid scrutiny that would destroy similar frauds in other sectors.

Consumer protection law recognizes that certain representations create enforceable obligations regardless of industry context. When publishers market "rigorous peer review," they make specific, measurable claims about service characteristics that create legal duties to deliver those services. The academic setting does not exempt these commercial representations from normal consumer protection standards—a journal charging \$11,000 for publication services operates in commerce subject to the same deceptive practices prohibitions that govern any other business.

The materiality of publisher misrepresentations is easily established through researcher behavior: authors choose journals based on claimed review quality, institutions make financial decisions based on editorial representations, and federal agencies permit grant expenditures based on publisher marketing about necessary services. When investigation reveals that promised peer review consists of paper mill acceptance, editorial bribery, or automated processing, the gap between representation and reality creates classic consumer fraud liability.

State and federal consumer protection statutes provide particularly powerful remedies because they recognize that certain fraudulent practices harm entire markets rather than individual consumers. Academic publishing's systematic deception affects thousands of researchers, hundreds of institutions, and billions in federal funding—precisely the type of widespread commercial fraud that consumer protection law was designed to address through coordinated enforcement and structural remedies.

The timing for consumer protection enforcement could not be more favorable. Courts increasingly recognize that digital age frauds require aggressive remedies, state attorneys general have developed sophisticated coordination mechanisms for multi-jurisdictional enforcement, and public awareness of corporate exploitation has created political support for vigorous prosecution. Academic publishers have avoided scrutiny not through legal immunity but through regulatory capture that consumer protection enforcement can bypass entirely.

1. Lanham Act § 43(a): Commercial False Advertising

Publishers' marketing claims create Lanham Act liability through several elements.⁶⁶ They make false statements claiming "rigorous peer review" while accepting bribes. These statements appear in commercial speech marketing to authors and institutions. The claims are material because authors choose journals based on review quality. Competitors suffer injury through unfair advantage, and digital publishing inherently involves interstate commerce. *U-Haul v. Jartran*'s \$40 million verdict for price-quality misrepresentation provides the template.⁶⁷ If rental truck comparisons warrant eight-figure damages, scientific publishing fraud demands more.

The Lanham Act's application to academic publishing is straightforward. Publishers make specific, measurable claims about service quality—"rigorous peer review," "expert editorial oversight," "meticulous production standards." These aren't mere puffery but factual assertions about service characteristics. When investigation reveals peer review corrupted by bribes, editorial positions sold to paper mills, and production automated to introduce errors, the false advertising is actionable.

The competitive injury element is easily satisfied. Legitimate journals that maintain actual peer review standards lose submissions to corrupted competitors who guarantee acceptance through editorial manipulation. Authors diverted by false quality claims suffer direct harm. The remedy includes not just damages but injunctive relief that could restructure industry practices.

2. State UDAP Statutes: The Consumer Protection Multiplier

Every state prohibits unfair and deceptive practices, with significant advantages over federal claims.⁶⁸ These statutes provide strict liability without need to prove intent, automatic statutory damages multipliers, fee shifting where publishers pay attorney costs, and state attorney general enforcement without requiring individual action. The hotel resort fee litigation shows coordinated state action works.⁶⁹ When California, New York, and Texas simultaneously sue, industries capitulate.

State consumer protection statutes multiply available remedies. Every state prohibits unfair and deceptive practices in trade or commerce. These laws provide strict liability without proving intent, automatic statutory damages multipliers, attorney fee shifting, and the power of state attorneys general enforcement. When California, New York, and Texas simultaneously investigate publisher fraud, the industry will face pressure that forced transformation in airlines, hotels, and other concentrated industries.

The advantages of state law claims are substantial. No need to prove competition between plaintiff and defendant—any affected researcher can sue. No requirement of scienter in most states—the deception itself creates liability. Statutory damages that multiply actual harm—turning thousands in overcharges into millions in liability. Mandatory attorney fee awards for successful plaintiffs—enabling contingency representation. State AG enforcement on behalf of all affected researchers—multiplying pressure exponentially.

3. FTC Enforcement: The OMICS Template

The FTC's \$50.1 million judgment against OMICS established crucial precedents.⁷⁰ Publishers operate in consumer commerce subject to FTC jurisdiction. Deceptive peer review claims are actionable violations. Hidden fees violate consumer protection laws. Injunctive relief can reshape industry practices. Mainstream publishers engaging in identical conduct face identical liability. Prestige provides no immunity from fraud prosecution.

The FTC's OMICS victory provides the enforcement template. The agency proved that publishers operate in commerce, that deceptive peer review claims violate federal law, that hidden fees constitute unfair practices, and that courts will impose both monetary and injunctive relief. Mainstream publishers engaging in identical conduct—hiding fees, misrepresenting peer review, operating corrupted editorial

processes—face identical liability. That Elsevier has centuries of history while OMICS was a recent entrant provides no defense to fraud.

C. Antitrust Violations: Breaking the Submission Stranglehold

Academic publishing's anticompetitive structure represents one of the most brazen violations of antitrust law operating in plain sight within the American economy. The industry has eliminated virtually every mechanism through which normal markets discipline pricing and quality, creating a system where publishers extract monopoly rents while delivering systematically degraded services. What makes this particularly egregious is that the anticompetitive practices are not hidden conspiracies but openly coordinated industry standards that would trigger immediate prosecution in any other sector.

The exclusive submission requirement that dominates scientific publishing constitutes a horizontal agreement among competitors to eliminate price and quality competition. Every major publisher maintains identical policies preventing authors from submitting manuscripts to multiple journals simultaneously, despite the obvious competitive advantage that would flow to any publisher who defected from this arrangement. This parallel conduct, combined with the absence of legitimate business justification, establishes *per se* antitrust violations that courts have consistently condemned when found in other industries.

The essential facilities doctrine provides another powerful avenue for challenging publisher control over academic communication. Elite journals in many fields have become necessary infrastructure for career advancement, grant funding, and professional influence. When these essential facilities are controlled by networks that provide access based on personal relationships rather than merit, they violate fundamental antitrust principles requiring nondiscriminatory access to critical resources.

The remedial power of antitrust law extends far beyond monetary damages to structural reforms that can dismantle entire systems of exploitation. Courts possess authority to break up publisher portfolios through divestiture, eliminate anticompetitive practices through behavioral injunctions, require fair access to essential infrastructure through compulsory licensing, and prevent future consolidation through market share caps. These remedies attack the root causes of academic publishing fraud rather than merely compensating its victims.

The legal theories supporting antitrust action against academic publishers benefit from decades of successful precedent in other industries characterized by similar exploitation. The telecommunications breakup, Microsoft remedies, and ongoing technology platform investigations all provide roadmaps for applying antitrust law to concentrated industries that abuse their market power. Academic publishing's practices are more egregious and better documented than many industries that have faced successful antitrust challenges.

1. The Exclusive Submission Conspiracy

Publishers' universal requirement for exclusive submission constitutes multiple antitrust violations. It represents a horizontal agreement where competitors adopt identical restrictions, a vertical restraint tying submission to exclusivity, market division preventing competitive bidding, and innovation

suppression blocking efficient systems.⁷¹ Law reviews prove competitive submission works perfectly well.⁷² Science publishers' refusal reveals anticompetitive intent, not legitimate business purpose.

The Law Review Model: Proof That Competition Works

The legal academic publishing system demonstrates that competitive submission not only functions but produces superior outcomes for both authors and publications. Law reviews—the primary venues for legal scholarship—operate through fundamentally different mechanisms that eliminate most of the anticompetitive practices plaguing scientific publishing.⁷³ Understanding this alternative model reveals both the artificiality of science publishers' restrictions and the feasibility of competitive alternatives.

Law review submission operates through true competition. Authors submit simultaneously to dozens of journals, creating a marketplace where publications must compete on merit, speed, and service quality. This competitive dynamic produces remarkable efficiency: review decisions often occur within weeks rather than months, editorial feedback focuses on improving scholarship rather than protecting editorial prerogatives, and acceptance depends primarily on quality rather than network connections. The system proves that competitive submission enhances rather than degrades scholarly communication.

The economic incentives in law review publishing align with scholarly rather than commercial interests. Most law reviews are edited by students rather than faculty, eliminating the career conflicts that corrupt science publishing. Reviews are unpaid but time-limited, creating pressure for efficient evaluation. No Article Processing Charges exist—law reviews compete for the best scholarship, not the highest fees. Universities support law reviews as educational enterprises rather than profit centers, removing extraction incentives that distort science publishing.

The peer review process, while different from scientific evaluation, maintains quality through competitive pressure and transparent standards. Law reviews compete for prestigious submissions by demonstrating rigorous editorial standards and rapid turnaround. Authors can compare editorial quality across multiple journals simultaneously, creating market pressure for excellence. Poor editorial performance results in immediate competitive disadvantage as authors redirect submissions elsewhere.

Most importantly, the law review system demonstrates that competitive submission prevents rather than enables duplicate publication. Standard practice includes "exploding offers" where authors must withdraw from competing journals within specified timeframes. Electronic systems track submissions and acceptances, preventing double publication while maintaining competition. Publishers' claims that exclusive submission prevents duplication are refuted by decades of successful competitive submission in legal academia.

The technological infrastructure supporting law review competition could easily be adapted to scientific publishing. The Scholastica platform manages simultaneous submissions to hundreds of law reviews, providing authors with submission tracking and journals with manuscript management.⁷⁴ ExpressO enables bulk submission to multiple journals with integrated withdrawal systems.⁷⁵ These platforms prove that technology can support rather than hinder competitive submission when business models prioritize efficiency over extraction.

The contrast with scientific publishing is stark and legally significant. Where law reviews compete for submissions through service quality, science journals extract monopoly rents through exclusive submission. Where legal authors can compare editorial standards across multiple venues, scientific authors face bilateral monopolies with no competitive pressure. Where law review editorial decisions reflect educational mission and scholarly merit, science journal decisions increasingly reflect commercial interests and network favoritism. The existence of a functioning competitive alternative in legal publishing demonstrates that exclusive submission requirements in science serve no legitimate business purpose but exist solely to eliminate competition.⁷⁶

The antitrust implications are clear. When an entire industry adopts identical anticompetitive practices despite the existence of proven competitive alternatives, the conduct violates Sherman Act prohibitions on restraints of trade.⁷⁷ Science publishers cannot claim business necessity for exclusive submission when law reviews demonstrate that competitive submission enhances rather than impairs scholarly communication. The parallel conduct across science publishers, combined with the absence of legitimate justification, establishes a per se violation of antitrust law.

The exclusive submission requirement deserves extended antitrust analysis. In any normal market, sellers compete for products by offering better terms. Academic publishing has eliminated this competition through an industry-wide requirement that authors submit to only one journal at a time. This transforms what should be a competitive market into a series of bilateral monopolies where each journal faces no competition once it receives a submission.

The parallel conduct is striking. Every major science publisher maintains identical exclusive submission requirements despite the competitive advantage that would flow to any publisher who defected. Publishers claim exclusive submission prevents duplicate publication, but law reviews demonstrate that competitive submission with publication agreements prevents duplication while maintaining competition. The real purpose is eliminating price and service competition by preventing authors from seeking better terms.

2. Network Effects and Essential Facilities

The 54-person network's control creates antitrust liability through several mechanisms. Elite journals function as essential facilities for career advancement.⁷⁸ The network's refusal to deal excludes non-network researchers.⁷⁹ Network members receive discriminatory preferential access.⁸⁰ Merit-based research suffers competitive harm through systematic exclusion. This mirrors classic antitrust fact patterns where controlling essential resources violates Sherman Act § 2.⁸¹

The essential facilities doctrine provides another avenue for antitrust challenge. Under this doctrine, a monopolist controlling a facility essential for competition must provide access on reasonable and nondiscriminatory terms. Elite journals in many fields have become essential facilities—publication in them is necessary for career advancement, grant funding, and influence. When these journals are controlled by networks that provide access based on personal relationships rather than merit, they violate the duty to provide nondiscriminatory access.

3. Remedies That Restructure

Antitrust provides structural solutions beyond monetary damages. Courts can order divestiture breaking up publisher portfolios, behavioral injunctions prohibiting exclusive submission, compulsory licensing requiring FRAND terms for infrastructure, and market caps limiting publisher concentration.⁸² These remedies attack the root causes enabling fraud, not just symptoms.

The remedies available under antitrust law could fundamentally restructure academic publishing. Divestiture could break up publisher portfolios, creating competition where monopoly now reigns. Behavioral injunctions could prohibit exclusive submission requirements, enabling competitive markets. Compulsory licensing could force publishers to share essential infrastructure on fair, reasonable, and nondiscriminatory terms. Market caps could prevent any publisher from controlling more than a specified percentage of journals in any field.

VI. Criminal Dimensions: When Systematic Fraud Demands Prosecution

The line between aggressive business practices and criminal conduct is crossed when systematic deception becomes the core business model. Academic publishers have not merely crossed this line—they have obliterated it. The evidence reveals not isolated misconduct by rogue employees but coordinated criminal enterprises operating with the sophistication of organized crime syndicates. When publishers knowingly accept bribes for editorial positions, operate paper mills that mass-produce fraudulent research, and extract billions through false pretenses, they engage in conduct that would trigger immediate prosecution in any other industry.

The reluctance to pursue criminal charges in academic contexts stems from outdated notions that scholarly enterprises somehow operate outside normal commercial frameworks. This view ignores the reality that modern academic publishers are multi-billion dollar corporations whose executives earn millions while corrupting the scientific record. Elsevier's parent company RELX has a market capitalization exceeding \$60 billion. Springer Nature generates billions in annual revenue. These are not nonprofit scholarly societies but commercial enterprises that happen to traffic in academic content. When they engage in systematic fraud, they deserve the same criminal scrutiny as any other corporation.

The criminal law provides powerful tools specifically designed for the kind of systematic fraud publishers perpetrate. Wire fraud statutes reach any scheme to defraud using electronic communications—every corrupted paper submission, every fraudulent APC payment, every editorial bribe transferred electronically qualifies. The honest services fraud statute criminalizes the breach of fiduciary duties through bribery and kickback schemes—exactly what occurs when editors trade favorable reviews for reciprocal acceptances. RICO was enacted precisely to address criminal enterprises that operate through patterns of illegal activity—the editorial networks controlling academic publishing fit this definition perfectly.

Prosecutors have successfully pursued criminal charges in comparable contexts. The college admissions bribery scandal led to dozens of convictions, including prison sentences for those who corrupted academic processes for personal gain. The research misconduct cases at Duke and other universities triggered criminal investigations alongside civil liability. The OMICS prosecution, while civil, established

that publishers operate in commerce subject to fraud statutes. The precedents exist—what's needed is recognition that academic publishing fraud is not merely unethical but criminal.

A. Wire Fraud and Honest Services: The Bribery Networks

The systematic corruption documented in academic publishing satisfies every element required for federal criminal prosecution under wire fraud and honest services statutes. The evidence reveals not isolated incidents of misconduct but coordinated criminal enterprises operating with the sophistication and scope that typically trigger RICO prosecutions. When editors accept cryptocurrency payments for guaranteed publication, when publishers knowingly profit from paper mill infiltration, and when editorial networks trade favorable decisions through reciprocal arrangements, they engage in conduct that constitutes federal crimes regardless of academic context.

The reluctance to pursue criminal charges against academic publishers stems from outdated assumptions about scholarly enterprise rather than legal limitations. Modern academic publishing operates as a multi-billion dollar commercial industry whose executives earn millions while systematically corrupting the scientific record. These are not nonprofit learned societies but profit-maximizing corporations that happen to traffic in academic content. When they engage in systematic fraud, they deserve the same criminal scrutiny applied to any other commercial enterprise.

The wire fraud statute's broad reach encompasses virtually every aspect of modern academic publishing operations. Electronic manuscript submissions, digital payment processing, email communications coordinating editorial decisions, and online publication all involve interstate wire transmissions that bring publisher fraud within federal criminal jurisdiction. The Science investigation's documentation of cryptocurrency bribes provides smoking-gun evidence of criminal intent that would trigger immediate prosecution in any other industry.

Honest services fraud adds another dimension to potential criminal liability by addressing the corruption of fiduciary relationships that academic publishing depends upon. Editors owe duties not just to their journals and publishers but to the broader scientific community and ultimately to the public whose tax dollars fund much research. When they breach these duties through bribery, reciprocal favor-trading, or systematic bias in favor of connected researchers, they deprive stakeholders of the honest services they are entitled to receive.

The pattern of racketeering activity documented across academic publishing networks suggests that civil and criminal RICO charges may be appropriate for the most systematic offenders. The 54-person editorial network controlling elite business journals exhibits the organizational structure, ongoing coordination, and pattern of predicate crimes that characterize enterprises subject to RICO prosecution. The remedy of forfeiture could strip network members of decades of ill-gotten gains while dismantling the structures enabling continued corruption.

1. Wire Fraud Elements Satisfied

Each corrupted publication satisfies every element of wire fraud.⁸³ The scheme to defraud operates through paper mills and editorial bribes. Material misrepresentations claim legitimate review while

delivering corruption. Wire transmissions occur through electronic submission and payment systems. Intent to deceive is demonstrated by knowledge of the corrupted process. Federal jurisdiction exists because interstate commerce is inherently affected. The Science investigation's documentation of cryptocurrency bribes provides smoking-gun evidence of criminal intent.⁸⁴

The evidence increasingly suggests that criminal prosecution may be appropriate for the most egregious publisher conduct. The systematic nature of the fraud, the use of interstate wires to execute schemes, the corruption of editorial processes through bribery, and the operation of networks that resemble organized crime all trigger potential criminal liability.

Wire fraud charges are straightforward. Every corrupted paper submitted electronically, every APC paid through electronic transfer, every bribe paid in cryptocurrency involves interstate wire communications in furtherance of fraud. The Science investigation's documentation of \$20,000 editorial bribes provides smoking-gun evidence of criminal intent. Publishers who knowingly profit from corrupted peer review are conspirators in wire fraud conspiracies.

2. Honest Services Fraud

Editors accepting bribes deprive stakeholders of honest services through breach of fiduciary duties.⁸⁵ They owe duties to their journals and the scientific community. Accepting payment for favorable decisions breaches these duties. The breach materially affects publication outcomes. Federal funds often pay the resulting APCs. The 365 documented reciprocal acceptances in Mindel and Ciriello's study each represent potential honest services fraud.⁸⁶

The honest services fraud statute expands wire fraud liability to include schemes to deprive another of the intangible right of honest services. Editors owe fiduciary duties to their journals, the academic community, and ultimately the public whose tax dollars fund much research. When they accept bribes or engage in reciprocal acceptance schemes, they breach these duties in ways that constitute honest services fraud.

B. RICO: Academic Publishing as Organized Crime

The editorial networks controlling academic publishing exhibit characteristics that distinguish them from legitimate professional associations and place them squarely within RICO's definition of criminal enterprises. The Racketeer Influenced and Corrupt Organizations Act was designed precisely to address sophisticated criminal operations that corrupt legitimate institutions through patterns of illegal activity—an exact description of how publishing cartels have captured scholarly communication. What makes academic publishing networks particularly suitable for RICO prosecution is their combination of organizational sophistication, systematic criminal conduct, and interstate commercial operations that clearly fall within federal jurisdiction.

The transformation of scholarly editing from professional service into profit-generating criminal activity represents a textbook example of enterprise corruption that RICO was enacted to address. Editorial positions that once carried genuine responsibility for advancing knowledge have become commodities traded for personal gain through networks that operate with the coordination and hierarchy of organized

crime families. The 54-person cartel controlling elite business journals maintains clear leadership structures, enforces discipline through reciprocal obligations, and systematically excludes outsiders through coordinated discrimination that violates both antitrust and civil rights laws.

The interstate and international dimensions of academic publishing corruption create federal jurisdiction that extends RICO liability across multiple jurisdictions. Editorial networks coordinate activities across state and national boundaries, publishers operate multi-state businesses, federal grant funds flow through corrupted channels, and the resulting fraud affects commerce throughout the United States and beyond. This geographic scope ensures that RICO's jurisdictional requirements are easily satisfied while creating opportunities for coordinated enforcement that can dismantle entire criminal enterprises.

The financial dimensions of academic publishing corruption reveal the economic incentives that drive criminal behavior and justify the severe penalties available under RICO. Network members receive not just publication opportunities but career advancement, grant funding, speaking fees, consulting contracts, and other valuable benefits that flow from editorial control. When these benefits are obtained through systematic fraud rather than merit, they constitute proceeds of racketeering activity subject to forfeiture under RICO's remedial provisions.

The evidentiary foundation for RICO prosecution grows stronger each day as digital communications create permanent records of criminal coordination. Email metadata reveals communication patterns between network members preceding suspicious editorial decisions. Calendar data documents meetings where coordination occurs. Financial records show payments and benefits that create reciprocal obligations. Social media connections map network structures and evolution. This digital trail transforms suspicion into evidence admissible in criminal proceedings that could result in prison sentences for those who believed academic prestige provided immunity from criminal law.

1. The Enterprise Structure

The 54-person network satisfies RICO's enterprise requirement through several key characteristics.⁸⁷ The network functions as an association in fact with ongoing organizational structure, operates with a common purpose of controlling publication access, maintains continuity through relationships spanning years, and exhibits hierarchy with senior members mentoring juniors. This isn't loose academic collaboration—it's organized crime in academic dress.

RICO charges could dismantle entire networks. The 54-person editorial cartel satisfies every element of a racketeering enterprise. They maintain an ongoing organization with hierarchy and structure. They engage in patterns of predicate acts including wire fraud, mail fraud, and money laundering. They affect interstate commerce through their control of publication venues. The remedy—forfeiture of all proceeds from racketeering activity—could strip network members of decades of ill-gotten gains.

2. Pattern of Racketeering

The network engages in multiple predicate acts that establish the required pattern. Each corrupted electronic submission constitutes wire fraud.⁸⁸ Print journal distribution involves mail fraud.⁸⁹

Cryptocurrency bribes require money laundering.⁹⁰ Holding manuscripts hostage constitutes extortion.⁹¹ Two acts within ten years establish the pattern; the network commits hundreds annually.⁹²

3. Civil RICO's Triple Damages

Beyond criminal prosecution, civil RICO enables powerful remedies.⁹³ Researchers excluded by the network have standing as they suffer injury to business through denial of publication opportunities. Damages include lost career opportunities, reduced grant funding, and diminished influence from inability to publish in network-controlled journals. Trebling these damages and adding mandatory attorney fees could yield substantial recoveries that both compensate victims and deter future corruption.

VII. Precedents and Pathways: Learning from OMICS and Airlines

Success leaves clues, and the successful prosecution of systematic fraud in other industries provides a roadmap for dismantling academic publishing's corrupt enterprise. Two cases stand out as particularly instructive: the FTC's landmark victory against predatory publisher OMICS and the multi-year transformation of the airline industry from customer exploitation to accountability. These precedents demonstrate both the viability of legal action against entrenched interests and the specific strategies that force reform.

The OMICS case shattered the myth that academic publishers operate beyond consumer protection law. When the FTC secured a \$50.1 million judgment against OMICS for deceptive practices, it established that publishing scientific research is commerce subject to the same rules as selling cars or cable service. The court rejected every defense OMICS raised—that academic publishing is noncommercial, that sophisticated researchers should know better, that some legitimate peer review occurred. These same defenses, when raised by mainstream publishers, will fail for the same reasons.

The airline industry transformation offers an even more powerful model because it shows how coordinated pressure can reform an entire sector. Like academic publishing, airlines had achieved regulatory capture, operated through oligopolistic concentration, and exploited captive customers who had no alternatives. The industry seemed invulnerable to reform. Yet through sustained pressure—FTC investigations, DOT regulations, state AG enforcement, congressional hearings, and private litigation—airlines were forced to abandon their most exploitative practices. The same playbook, applied to academic publishing, can achieve similar results.

What makes these precedents particularly relevant is the similarity of the underlying conduct. OMICS charged hidden fees, provided sham peer review, and made false claims about editorial boards—exactly what mainstream publishers do at larger scale. Airlines unbundled services to create hidden costs, degraded quality while raising prices, and exploited market power to eliminate competition—the same strategies publishers perfected. The legal theories that succeeded against OMICS and airlines apply directly to academic publishing fraud.

A. FTC v. OMICS: The Template for Publisher Prosecution

The Federal Trade Commission's landmark victory against OMICS International represents the Rosetta Stone for prosecuting academic publishing fraud, providing both legal precedent and strategic roadmap for dismantling the systematic corruption that pervades scholarly communication. The \$50.1 million judgment and permanent injunction achieved against OMICS shattered every defense that mainstream publishers invoke to justify their exploitative practices, establishing that academic publishing operates in commerce subject to the same consumer protection laws that govern any other business enterprise.

What makes the OMICS precedent particularly powerful is the court's explicit rejection of academic exceptionalism—the notion that scholarly publishing somehow operates beyond normal commercial regulations. OMICS claimed that sophisticated researchers should recognize predatory practices, that some legitimate peer review occurred despite systematic fraud, and that academic publishing constituted noncommercial speech rather than business conduct. The court demolished each argument, holding that charging fees for publication services creates commercial transactions subject to consumer protection law regardless of academic context.

The enforcement strategy that succeeded against OMICS provides a proven template for attacking mainstream publishers whose practices differ only in scale and sophistication. The FTC demonstrated that hidden fee disclosure constitutes deceptive practice, that false claims about editorial boards violate advertising law, that sham peer review breaches service promises, and that holding manuscripts hostage represents unfair business conduct. Each violation identified in OMICS prosecution appears in amplified form throughout mainstream academic publishing, creating multiple avenues for coordinated enforcement action.

The remedial framework established through OMICS litigation extends far beyond monetary penalties to encompass structural reforms that can transform entire industry practices. The permanent injunction prohibiting OMICS from future deceptive conduct demonstrates judicial willingness to impose behavioral constraints on publishers, while the FTC's ongoing monitoring authority provides enforcement mechanisms that ensure compliance. These precedents create legal infrastructure for systematic reform rather than merely episodic punishment.

The deterrent effect of OMICS prosecution has already begun reshaping publisher behavior, proving that even limited enforcement action can trigger industry-wide responses. Publishers have modified disclosure practices, revised marketing claims, and implemented cosmetic reforms designed to avoid regulatory scrutiny—changes that demonstrate both consciousness of legal vulnerability and capacity for rapid adaptation when faced with enforcement pressure. The lesson for comprehensive reform is clear: sustained legal pressure can force fundamental transformation of an industry that has operated with impunity for decades.

1. The Violation Pattern

OMICS engaged in practices that mirror those of mainstream publishers.⁹⁴ They made deceptive editorial claims by listing prominent scientists without permission, hid fees by disclosing APCs only after acceptance, provided sham peer review with minimal or no actual review, and held manuscripts hostage by refusing withdrawal without payment.

The OMICS prosecution provides the template for publisher accountability. The FTC's \$50.1 million judgment proved that publishers operate in commerce subject to consumer protection law. The permanent injunction demonstrated that courts will restructure industry practices. The precedent established that prestige provides no immunity from fraud prosecution.

2. The Legal Victory

The FTC secured comprehensive relief that transformed the landscape.⁹⁵ The \$50.1 million judgment represents the largest ever against a predatory publisher. The permanent injunction prohibits deceptive practices going forward. The precedent establishes that publishers are subject to consumer protection laws. The deterrent effect has reverberated industry-wide.

3. Mainstream Application

OMICS was labeled "predatory," but mainstream publishers show identical patterns. Elsevier charges \$11,000 APCs while using automated systems. Wiley retained fees from 11,300 retractions arising from paper mills. The industry maintains 30-40% profit margins on public funds.⁹⁶ The legal theories don't distinguish between predatory and prestigious—fraud is fraud.

B. The Airline Model: From Extraction to Accountability

The transformation of the airline industry from customer exploitation to relative accountability provides the most compelling blueprint for reforming academic publishing because both industries followed identical trajectories toward systematic fraud before coordinated enforcement action forced fundamental change. Like academic publishers, airlines achieved oligopolistic concentration through waves of consolidation, created captive customer bases with limited alternatives, perfected hidden fee structures that obscured true costs, and achieved regulatory capture that protected exploitative practices from meaningful oversight.

The parallels between airline and publisher exploitation are striking in their specificity. Both industries unbundled previously included services to create new revenue streams while degrading core service quality. Airlines separated baggage fees, seat selection charges, and food costs from ticket prices just as publishers separated submission fees, color figure charges, and expedited review costs from basic publication services. Both industries used technology not to improve customer experience but to perfect extraction mechanisms that maximized revenue while minimizing transparency.

The regulatory capture that protected both industries from reform followed similar patterns of agency capture, industry-written rules, and revolving door employment between regulators and regulated entities. Just as former airline executives populated transportation regulatory agencies, former publisher employees have moved seamlessly into federal funding agency positions where they write policies favoring their former employers. Both industries cultivated academic and policy communities that defended exploitative practices as necessary market mechanisms rather than recognizing them as systematic fraud.

The enforcement campaign that transformed airline practices demonstrates how coordinated pressure across multiple agencies and jurisdictions can overcome entrenched resistance to reform. The

combination of FTC advertising investigations, DOT operational regulations, state attorney general consumer protection actions, congressional oversight hearings, and private litigation created sustained pressure that forced systematic change rather than cosmetic modifications. Each enforcement action reinforced others, creating cumulative pressure that made continued exploitation economically unsustainable.

The timeline of airline transformation—stretching across more than a decade of sustained enforcement—provides realistic expectations for academic publishing reform while demonstrating that patience and persistence can achieve results that seemed impossible when the campaign began. Early enforcement actions that appeared to produce minimal change created legal precedents and enforcement infrastructure that enabled more aggressive later actions. The lesson for academic publishing reform is that comprehensive transformation requires sustained commitment rather than episodic intervention.

1. The Parallel Evolution

Airlines and publishers followed identical trajectories toward exploitation. Both industries experienced massive consolidation, with four airlines and five publishers now dominating their respective markets.⁹⁷ Both created captive markets where consumers lack meaningful alternatives. Hidden fees proliferated in both industries through undisclosed charges. Service quality declined dramatically even as prices rose. Both industries achieved regulatory capture by writing their own rules.

The airline industry transformation shows how coordinated enforcement works. Through sustained pressure from regulators, legislators, and litigators, airlines transformed from customer exploitation to relative accountability. Publishers will follow the same path when faced with comparable pressure.

2. The Enforcement Campaign

Airlines transformed through coordinated pressure applied over years.⁹⁸ From 2009 to 2011, the FTC conducted advertising investigations. Between 2012 and 2013, the DOT imposed fee disclosure rules. From 2014 to 2016, state attorneys general coordinated enforcement actions. Between 2017 and 2019, private litigation achieved significant victories. From 2020 to 2024, comprehensive reform was finally achieved.

3. The Results

Today's airline industry features transparency and accountability that seemed impossible a decade ago.⁹⁹ All fees must be disclosed upfront, enabling genuine price comparison. Passengers have enforceable rights to refunds for failures. Service standards are maintained through regulatory oversight. Competition has increased as new entrants can challenge incumbents on transparent terms.

4. The Publishing Playbook

The same strategy can dismantle publishing fraud through phased implementation. Phase 1 in 2025 would involve FCA suits against the worst actors. Phase 2 from 2025-26 would see state attorneys general launch consumer protection actions. Phase 3 from 2026-27 would bring systematic FTC

enforcement. Phase 4 from 2027-28 would involve antitrust restructuring. Phase 5 from 2028-30 would establish the new market structure.

VIII. The Prosecution Strategy: Coordinated Action for Maximum Impact

Dismantling a multi-billion dollar fraud requires more than good intentions and compelling evidence—it demands strategic coordination that maximizes pressure while preventing the industry from adapting its fraud to evade enforcement. The prosecution strategy must be comprehensive, attacking multiple vulnerabilities simultaneously while building momentum through early victories that demonstrate the viability of legal action. This is not a single lawsuit but a campaign that combines litigation, regulation, legislation, and public pressure to force fundamental restructuring.

The strategy draws lessons from successful campaigns against entrenched corporate fraud. The tobacco litigation of the 1990s showed how state attorneys general could coordinate to prevent companies from playing jurisdictions against each other. The financial crisis prosecutions demonstrated the power of parallel civil and criminal proceedings. The #MeToo movement proved that cultural moments can create windows for legal action previously thought impossible. Academic publishing fraud requires similar coordination, combining the expertise of different enforcement agencies with the moral authority of the scientific community demanding reform.

Timing is critical. The December 31, 2025 implementation of federal open access mandates creates both urgency and opportunity. Publishers are repositioning to capture hundreds of millions in new federal funding through these mandates. Without immediate intervention, the fraud will accelerate and become more entrenched. But this deadline also focuses attention—Congress is watching implementation, agencies are reviewing policies, and researchers are organizing around open access issues. This convergence of factors creates a unique moment when coordinated action can achieve maximum impact.

The prosecution strategy must also anticipate and counter publisher defenses. They will claim academic tradition shields them from commercial law, but OMICS destroyed that defense. They will argue that researchers voluntarily pay APCs, but economic duress and fraud in the inducement negate consent. They will assert that some peer review occurs, but partial performance doesn't excuse systematic fraud. They will threaten to exclude American researchers from publication, but international coordination prevents this retaliation. Every defense has been raised and rejected in analogous contexts—the prosecution strategy must be ready with precedents that demolish publisher arguments.

A. Immediate Enforcement Priorities

The prosecution strategy for academic publishing fraud must begin with carefully selected targets that provide maximum legal precedent while minimizing industry arguments about selective enforcement or prosecutorial overreach. Success requires choosing cases that present overwhelming evidence of systematic fraud, clear violations of established law, substantial financial harm to federal programs, and defendants whose conduct is so egregious that it cannot be defended as legitimate business practice or academic tradition.

The strategic selection of initial targets serves multiple purposes beyond individual case outcomes. Early victories establish legal precedents that apply across the industry, demonstrate prosecutorial seriousness to potential defendants, encourage whistleblowers to come forward with additional evidence, create media attention that educates stakeholders about the scope of fraud, and generate political support for expanded enforcement resources. Conversely, early defeats could undermine the entire campaign by creating adverse precedents and emboldening publisher resistance.

The evidence standard for initial prosecutions must exceed normal prosecutorial thresholds to ensure victories that establish favorable precedents rather than close cases that could go either way. This means targeting publishers with internal documents acknowledging fraud, editorial logs showing systematic corruption, financial records documenting excessive profit margins, and witness testimony from credible insiders who can provide firsthand accounts of criminal conduct. The goal is creating cases so strong that defense arguments appear frivolous rather than plausible.

The coordination of federal, state, and private enforcement actions requires careful timing to maximize cumulative pressure while avoiding duplication that could undermine individual cases. Federal False Claims Act suits should establish baseline liability for systematic overcharging, state consumer protection actions should address deceptive marketing practices, private litigation should provide remedies for excluded researchers, and regulatory investigations should create ongoing oversight that prevents recurrence of fraudulent conduct.

The international dimensions of academic publishing require coordination with foreign enforcement agencies to prevent publishers from exploiting jurisdictional arbitrage that could undermine domestic enforcement efforts. Publishers incorporate in multiple countries, maintain operations across borders, and serve global markets that could provide refuge from U.S. enforcement if not properly coordinated. Early engagement with European, Asian, and other enforcement agencies ensures that reform pressures converge rather than allowing publishers to play jurisdictions against each other.

1. Target Selection

The clearest fraud cases should be prosecuted first to establish precedent. Hindawi/Wiley presents the most compelling target with 11,300 retractions and retained APCs.¹⁰⁰ Nature's \$11,000 charges coupled with documented paper mill infiltration create perfect price-quality disconnect cases. The journals controlled by the 54-person network demonstrate clear antitrust violations. MDPI's special issues with 88% acceptance rates and resigned editorial boards prove systematic corruption.

2. Evidence Collection

Subpoena powers will reveal the full extent of fraud. Editorial logs will show instant acceptances without review. Financial records will document cryptocurrency bribes. Submission patterns will reveal paper mill IP addresses. Internal communications will demonstrate knowledge of fraud.

Key evidence collection priorities include:

- Internal publisher communications acknowledging fraud

- Analytics reports showing detection capabilities not deployed
- Financial records documenting profit margins and cost structures
- Editorial logs revealing rubber-stamp review processes
- Contracts showing the disconnect between promised and delivered services

3. Coordinated Filing

Simultaneous actions across multiple jurisdictions maximize impact. The DOJ should file FCA suits against major publishers seeking treble damages. State attorneys general should launch consumer protection actions across all 50 states. The FTC should investigate industry-wide practices. Private parties should file class actions on behalf of excluded researchers.

The litigation strategy must be coordinated to maximize pressure:

- Federal cases in favorable jurisdictions with experienced counsel
- State investigations in jurisdictions with strong consumer protection laws
- Administrative complaints to agencies with existing oversight authority
- Private litigation to multiply pressure points and prevent settlement isolation

B. Legislative Imperatives

The prosecution of academic publishing fraud through existing legal frameworks, while necessary and potentially successful, cannot achieve comprehensive reform without legislative action that addresses the structural vulnerabilities that enable systematic exploitation. Current laws provide remedies for fraud after it occurs but lack preventive mechanisms that would make future fraud economically impossible. Legislative reform must therefore complement litigation by creating regulatory frameworks that eliminate the market distortions enabling extraction while establishing ongoing oversight that prevents corruption from reconstituting under new forms.

The legislative campaign must recognize that academic publishing reform faces unique political challenges stemming from the industry's successful cultivation of academic and policy constituencies who view publisher interests as aligned with scholarly advancement. Decades of captured regulation have created widespread acceptance of exploitative practices as inevitable market mechanisms rather than policy choices that could be changed through legislative action. Overcoming this resistance requires legislation that clearly distinguishes between supporting genuine scholarly communication and subsidizing commercial fraud.

The timing of legislative action creates both opportunities and constraints that must be carefully managed to achieve maximum impact. The December 31, 2025 implementation of federal open access mandates creates urgency for reform while focusing political attention on publishing policies. However, this same deadline creates pressure for quick fixes that might entrench rather than eliminate exploitative

practices. Legislative strategy must therefore balance immediate intervention needs with longer-term structural reforms that address root causes rather than symptoms.

The international dimensions of academic publishing require legislative frameworks that can coordinate with allied nations while preventing regulatory arbitrage that could undermine domestic reforms. Publishers operate globally and could potentially relocate operations to evade U.S. regulations unless legislative action includes mechanisms for international cooperation and extraterritorial enforcement. Trade agreements and diplomatic channels provide opportunities for coordinated action that could make publisher evasion practically impossible.

The constitutional dimensions of academic publishing regulation require careful attention to First Amendment considerations while recognizing that commercial fraud receives no constitutional protection regardless of academic context. Publishers will inevitably claim that pricing regulations or quality standards violate free speech principles, but decades of precedent establish that commercial transactions remain subject to normal business regulations even when they involve information or communication services.

1. The Academic Publishing Accountability Act

Comprehensive reform legislation must address the root causes of fraud. The Act would cap APCs at \$1,000 maximum for federal reimbursement, require mandatory disclosure of actual costs and services, establish refund rights for retracted papers, enhance whistleblower rewards through expanded qui tam provisions, and create explicit criminal penalties for publication fraud.

2. The Scientific Integrity Protection Act

This legislation would address systemic corruption through structural reforms. It would mandate editorial board diversity to break male dominance, establish strict conflict of interest provisions preventing editorial self-dealing, impose term limits to prevent indefinite network control, require rotation to ensure fresh perspectives, and mandate public disclosure of all editorial relationships.

3. The Fair Competition in Publishing Act

Antitrust modernization would dismantle monopolistic structures. The Act would prohibit exclusive submission requirements, establish maximum market share limits for publishers, declare essential journals as public utilities requiring open access, create presumptions against further consolidation, and grant agencies authority to regulate prices when markets fail.

C. Coalition Building for Sustained Pressure

The transformation of academic publishing requires mobilizing a coalition powerful enough to sustain pressure across multiple years while overcoming the industry's sophisticated resistance strategies. Unlike other corporate reform campaigns that can rely on consumer boycotts or shareholder activism, academic publishing reform must unite stakeholders with conflicting interests, different timelines, and varying levels of commitment to fundamental change versus incremental accommodation. Success

depends on creating alignment among groups that have historically operated in isolation or even opposition to each other.

The complexity of academic publishing fraud means that no single constituency possesses sufficient power to force comprehensive reform, but coordinated action across multiple stakeholders can create irresistible pressure for change. Researchers provide moral authority and technical expertise but lack economic leverage. Libraries control substantial purchasing power but often prefer negotiated accommodations to confrontational tactics. Universities possess significant influence but face conflicts between faculty interests and administrative concerns. Federal agencies have regulatory authority but operate under political constraints that limit aggressive action. Each group's limitations can be offset by others' strengths if properly coordinated.

The messaging strategy for coalition building must emphasize shared interests while acknowledging legitimate differences among stakeholders who approach reform from different perspectives. Anti-fraud themes resonate across political and institutional boundaries because they appeal to fundamental fairness rather than partisan policy preferences. Taxpayer protection arguments engage fiscal conservatives who might otherwise dismiss academic concerns. Scientific integrity appeals cross ideological lines because research credibility affects national competitiveness and public health regardless of political affiliation.

The international dimensions of coalition building create opportunities for leveraging reform successes in other countries while demonstrating global momentum that makes publisher resistance appear futile rather than principled. European Plan S implementation, German price negotiations, and French diamond open access initiatives provide concrete examples of successful alternatives to exploitative models. International coordination also prevents publishers from playing different countries against each other by threatening to relocate operations or exclude researchers from global networks.

The sustainability of coalition pressure requires institutional mechanisms that can maintain momentum across election cycles, personnel changes, and shifting political priorities. Academic publishing reform will take years to achieve and must survive attempts by publishers to divide coalitions through selective accommodations, targeted retaliation, and coordinated messaging designed to fragment opposition. Creating durable institutional infrastructure for sustained campaign coordination represents one of the most critical success factors for comprehensive reform.

1. Core Stakeholders

Successful reform requires mobilizing key constituencies. Researchers must organize through professional societies that provide collective protection. Libraries must leverage their collective purchasing power to demand accountability. Universities must recognize that their long-term interests align with reform rather than protecting corrupted systems. Funding agencies must enforce existing authorities to cap reimbursable charges. Congress must provide oversight and legislative solutions.

Success requires mobilizing constituencies that have historically accepted exploitation as inevitable. Researchers must overcome fear of retaliation by organizing through professional societies that provide collective protection. Libraries must leverage their purchasing power by negotiating collectively rather

than individually. Universities must recognize that their long-term interests align with reform rather than protecting corrupted systems.

2. Strategic Alignment

Coalition members must coordinate their efforts for maximum impact. A central repository should document fraud evidence for use across cases. Litigation should be coordinated to avoid duplication while maximizing pressure. Media strategy should maintain public attention on publisher exploitation. International cooperation should prevent publishers from exploiting jurisdictional differences.

The messaging must resonate across constituencies:

- For researchers: "Your career shouldn't depend on paying bribes"
- For libraries: "Your budgets shouldn't fund fraud"
- For universities: "Your reputation shouldn't suffer from corrupted publications"
- For taxpayers: "Your money shouldn't subsidize scientific fraud"
- For patients: "Your treatments shouldn't be based on fake research"

3. Timeline for Victory

The path to reform follows a clear trajectory. In Q1 2025, major FCA filings and media campaigns launch. Q2 2025 sees state attorneys general begin investigations. Q3 2025 brings congressional hearings that expose fraud publicly. Q4 2025 produces first settlements and verdicts. Throughout 2026, the legislative package advances through Congress. In 2027, antitrust actions are filed to restructure markets. By 2028, market restructuring begins in earnest. By 2030, a new publishing ecosystem is established.

IX. The Human Cost: Beyond Numbers to Real Consequences

While the financial fraud and legal violations demand prosecution, we must not lose sight of the human consequences that make this more than white-collar crime. Behind every retracted paper lies a researcher whose career may never recover. Behind every excluded manuscript stands a scientist whose innovations never reach those who need them. Behind every corrupted publication lurks the potential for real-world harm—medical treatments based on fraudulent data, engineering standards derived from manipulated results, policy decisions influenced by purchased conclusions. Understanding these human costs transforms academic publishing fraud from abstract violation to urgent crisis demanding immediate legal intervention.

Consider the cascading damage from a single fraudulent publication in medical research. A paper claiming breakthrough cancer treatment, published through editorial bribery and paper mill manipulation, enters the medical literature with the imprimatur of a prestigious journal. Oncologists, trusting peer review, incorporate its findings into treatment protocols.¹⁰¹ Patients receive therapies based on fabricated data. When the fraud is eventually discovered—often years later—the damage cannot be undone. Patients have suffered through ineffective treatments while forgoing proven alternatives. Healthcare resources have been wasted on false promises. Other researchers have built upon fraudulent

foundations, misdirecting years of subsequent work. The retraction notice, buried in the journal's back pages, cannot resurrect lost opportunities or lost lives.

The career destruction wrought by editorial networks extends beyond individual disappointments to systematic talent waste. A brilliant young researcher outside the 54-person network submits groundbreaking work to an elite journal. The handling editor, owing reciprocal favors within the network, desk-rejects the manuscript without review. The researcher revises and resubmits to another journal, only to face another network member who owes different favors. After years of rejections based on politics rather than merit, the researcher abandons academia entirely. Society loses not just one paper but decades of potential contributions. Multiply this by thousands of excluded researchers, and the innovation deficit becomes staggering.

The discriminatory impact compounds these harms. When editorial networks are 94.5% male, women researchers face not just individual bias but systematic exclusion from career-defining publications. Researchers from developing nations, lacking connections to Western editorial networks, find their work marginalized regardless of quality. Young scientists from working-class backgrounds, unable to attend conferences where network relationships form, discover that merit alone cannot overcome social capital deficits. The result is a scientific enterprise that reinforces privilege rather than advancing knowledge, that perpetuates inequality rather than promoting excellence.

The institutional damage from corrupted publishing spreads throughout academia. Universities hiring based on publication metrics contaminated by network favoritism appoint inferior researchers to permanent positions. Grant agencies allocating billions based on publication records distorted by editorial corruption fund mediocrity over innovation. Tenure committees evaluating careers shaped by access rather than achievement perpetuate systems that reward connection over contribution. The entire academic enterprise becomes a self-reinforcing cycle where corruption breeds more corruption, where gaming the system matters more than advancing knowledge.

Students suffer particularly acute harm from this corrupted system. Graduate students devote their most productive years to research, trusting that quality work will be recognized through publication. When they discover that their advisor's network connections matter more than their experimental results, disillusionment sets in. Many abandon research entirely, representing lost human capital that society desperately needs. Those who persist learn to play the game—citing network members' papers regardless of relevance, pursuing trendy topics that network journals favor, sacrificing intellectual integrity for career survival. The corruption of idealistic young scientists into cynical game-players represents a tragedy beyond any financial fraud.

The Hidden Economic Toll: Quantifying the Opportunity Cost of Publishing Fraud

While the direct financial fraud is measurable in billions, the opportunity cost of corrupted publishing systems dwarfs these figures. When brilliant researchers abandon science because they cannot penetrate editorial networks, society loses decades of potential discoveries. When funding flows to well-connected mediocrity rather than innovative outsiders, breakthrough advances are delayed or prevented entirely. When fraudulent research misdirects entire fields, billions in follow-up research is wasted. The

cumulative economic impact likely exceeds hundreds of billions annually—a hidden tax on human progress.

Consider pharmaceutical development, where a single successful drug can generate tens of billions in value while treating millions of patients. When publishing fraud delays or prevents drug discovery, the economic loss is enormous. A cancer treatment delayed by five years because legitimate research was excluded by editorial cartels represents not just delayed revenue but unnecessary deaths. An antibiotic discovery prevented because the researcher couldn't publish without network connections means superbugs continue spreading. A mental health breakthrough suppressed because it challenged network members' theories means millions continue suffering. Each represents billions in economic value destroyed by publishing corruption.

The innovation deficit in engineering and technology is equally severe. When paper mills flood conferences with fraudulent AI research, genuine advances become invisible in the noise. Companies waste millions pursuing developments based on fabricated results. Venture capital flows to startups built on fraudulent foundations. Government agencies fund research programs based on corrupted literature reviews. The misdirection of resources from productive to fraudulent paths represents a massive economic inefficiency that compounds over time.

The educational impact multiplies these losses. When graduate students spend years studying fraudulent papers, their potential contributions are delayed or destroyed. When textbooks incorporate fabricated results, generations of students learn incorrect information. When professors teach theories based on corrupted research, they misdirect young minds that might otherwise make breakthrough discoveries. The compound effect over decades is immeasurable but certainly represents trillions in lost human potential.

The public health implications of publishing fraud demand special attention. When paper mills infiltrate medical journals, they don't just corrupt abstract knowledge—they endanger lives. The COVID-19 pandemic illustrated this vividly. Fraudulent papers about hydroxychloroquine treatment, published through corrupted peer review, influenced treatment protocols worldwide.¹⁰² Patients received ineffective or harmful treatments based on fabricated data. Public health policies incorporated fraudulent findings. The eventual retractions came too late to prevent harm. That publishers profited from APCs while enabling life-threatening fraud elevates their conduct from commercial deception to public endangerment.

Engineering and technical fields face similar risks when fraudulent research corrupts safety standards. A paper claiming new materials properties, published through editorial bribery, might influence construction standards or aerospace design. When bridges collapse or aircraft fail because engineers relied on fraudulent data, publisher profits become blood money. The chain of causation from corrupted peer review to physical harm may be long, but legal systems routinely recognize such connections when imposing liability for creating unreasonable risks.

Environmental science faces unique vulnerabilities to publishing fraud. Climate change deniers have long sought to publish contrarian papers that create false impressions of scientific debate. When editorial

networks enable such publications through corruption rather than merit review, they provide ammunition for policies that threaten planetary survival. A single fraudulent paper questioning climate science, amplified through political channels, can delay crucial action by years. Publishers who enable such fraud through corrupted systems bear moral if not legal responsibility for consequences measured in ecological destruction and human displacement.

The psychological toll on honest researchers watching corruption flourish while their work languishes cannot be quantified but must be acknowledged. Scientists who devoted decades to careful research see rushed paper mill products published in prestigious venues. Researchers who followed every ethical guideline watch others advance through bribery and favoritism. The mental health crisis in academia—with graduate students showing depression rates six times the general population—stems partly from witnessing merit subordinated to manipulation.¹⁰³ When the gatekeepers of knowledge become corrupt, those who refuse corruption suffer most.

International development suffers when research relevant to global challenges is excluded by Western editorial networks. Researchers in Africa studying local disease patterns, scientists in Asia developing appropriate technologies, scholars in Latin America documenting indigenous knowledge—all face systematic exclusion from journals that shape global policy. Their work, often more relevant to human welfare than the network's self-referential publications, remains invisible to decision-makers who rely on "prestigious" journals. The result is development policies based on Western assumptions rather than local realities, perpetuating colonial patterns through corrupted publication systems.

The erosion of public trust in science represents perhaps the gravest long-term consequence. When retractions make headlines, when paper mill scandals explode, when editorial corruption is exposed, public confidence in all research suffers. Vaccine hesitancy, climate denial, and anti-science movements feed on legitimate examples of scientific corruption to dismiss all expertise. Publishers who enable fraud through corrupted systems don't just steal money—they provide ammunition to those who would undermine evidence-based decision-making entirely. In an era when humanity faces challenges requiring scientific solutions, corrupting the channels of scientific communication threatens civilization itself.

X. The Technology Revolution: Disrupting Fraud Through Innovation

While legal action can dismantle current fraud, preventing recurrence requires fundamental restructuring of academic publishing's technological infrastructure. The same digital revolution that publishers weaponized for extraction can be redirected toward transparency, accountability, and genuine peer review. Understanding these technological possibilities reveals both the artificiality of current constraints and the feasibility of alternatives that serve science rather than shareholders. The law's role includes not just prosecuting current fraud but creating space for innovations that make future fraud impossible.

Blockchain technology offers solutions to multiple publishing pathologies. A distributed ledger of peer reviews would create permanent, tamper-proof records of who reviewed what, when, and with what outcome.¹⁰⁴ Authors could verify that claimed reviews actually occurred. Editors couldn't accept bribes to override negative reviews that would remain visible on-chain. Paper mills couldn't fabricate reviewer

reports that blockchain would expose as fraudulent. Smart contracts could automatically distribute payments to reviewers, ending the current system where publishers extract billions while reviewers work free. The technology exists today; only publisher resistance prevents implementation.

Artificial intelligence, rather than enabling fraud through paper generation, could restore quality control at scale. Machine learning models trained on known paper mill products can identify suspicious submissions with accuracy exceeding human reviewers. Natural language processing can detect the subtle patterns distinguishing genuine research from fabrication. Computer vision algorithms can identify manipulated images, duplicated figures, and fraudulent data visualizations.¹⁰⁵ Anomaly detection can flag editorial patterns suggesting corruption—editors accepting papers outside their expertise, reviewers recommending acceptance without substantive comments, authors with suspicious publication bursts. Publishers possess these capabilities but don't deploy them because fraud is profitable.

Open peer review platforms could eliminate the secrecy that enables corruption. When reviews are published alongside papers, bribes become impossible to hide. Reviewers must justify their recommendations publicly, creating accountability for superficial reviews. Authors can respond to criticisms transparently rather than through private editorial negotiations. The community can judge whether peer review was rigorous or corrupted. Several journals have implemented open review successfully, demonstrating feasibility.¹⁰⁶ The resistance comes from those who benefit from opacity—publishers who profit from volume over quality and network members who trade favors in darkness.

Decentralized autonomous organizations (DAOs) could replace corporate publishers entirely. Academic communities could create scholar-governed publishing collectives where researchers control editorial policies, pricing, and quality standards. Cryptocurrency mechanisms could align incentives—reviewers earning tokens for quality reviews, editors staking tokens that are forfeited for accepting fraudulent papers, authors paying reasonable fees that support infrastructure rather than shareholder profits.¹⁰⁷ The technology enabling such systems exists and operates successfully in other domains. Academic publishing's resistance stems from incumbent power, not technological barriers.

Preprint servers demonstrate that dissemination doesn't require publishers. ArXiv, bioRxiv, and other repositories allow immediate, free sharing of research.¹⁰⁸ Overlay journals selecting quality papers from preprint servers show that curation can be separated from dissemination. Post-publication peer review on preprints often exceeds traditional review quality because it's open, ongoing, and community-driven. The main barrier to preprint dominance isn't technology but career incentives—tenure committees valuing traditional publications over preprint citations. Legal reform could accelerate this transition by recognizing preprints as legitimate publications for federal compliance purposes.

Machine-readable semantic publishing could transform papers from static PDFs into living documents. Research claims could be linked to supporting data, enabling automated verification. Methods sections could include executable code, allowing reproduction. Citations could be bidirectional, showing not just what a paper cites but what cites it. Version control could track corrections and updates. Peer reviews could be attached as structured commentary. All of this is technologically feasible today. Publishers resist because static PDFs are cheaper to produce and harder to verify for fraud.

Federated search and discovery systems could break publisher platform monopolies. Currently, researchers must navigate dozens of publisher websites with different interfaces, paywalls, and restrictions. A federated system could search all research regardless of publisher, display results without artificial barriers, and connect related work across disciplines. Google Scholar partially achieves this but faces publisher resistance to full-text indexing. Legal mandates for interoperability could force publishers to participate in systems that serve researchers rather than extracting rent.

Automated meta-analysis could identify fraudulent research patterns across publications. When paper mills publish variants of the same fraudulent study across multiple journals, automated systems could detect the duplication. When citation cartels artificially boost metrics, network analysis could expose the manipulation. When editorial networks publish inferior research, quality metrics could quantify the degradation. The analytical tools exist; what's missing is comprehensive access to publication data that publishers guard jealously. Legal requirements for data transparency could enable fraud detection at scale.

Digital identity systems could eliminate the fake personas that paper mills exploit. Currently, anyone can create author profiles claiming fictional affiliations and credentials. Blockchain-based identity verification could ensure that authors are real people with verified institutional connections.¹⁰⁹ ORCID provides a partial solution but lacks enforcement mechanisms. Publishers could require verified digital identities for all submissions, making paper mill operations vastly more difficult. The technology is mature; implementation awaits only the will to exclude fraudulent actors even at the cost of reduced submission volume.

The competitive ecosystem that technology enables would transform publishing from extraction to service. When authors can simultaneously submit to multiple journals, they can compare offers and choose based on quality, speed, and price. When reviewers are compensated fairly, review quality improves. When editorial decisions are transparent, corruption becomes impossible. When infrastructure is community-owned, profits support research rather than shareholders. None of this requires breakthrough innovation—only the legal and regulatory framework that breaks incumbent monopolies and enables competition.

The suppression of technological innovation by incumbent publishers reveals conscious choice rather than technical limitation. Publishers have actively acquired and shuttered innovative platforms that threatened their business models. When Mendeley developed features that could have revolutionized scholarly communication, Elsevier acquired it and restricted its functionality. When SSRN created a preprint platform that challenged traditional publishing, Elsevier bought it and imposed artificial limitations. When innovative startups develop better peer review systems, publishers either acquire them or use patent litigation to destroy them. This pattern of acquisition and suppression would trigger antitrust scrutiny in other industries but continues unchallenged in academic publishing.

The potential for artificial intelligence to transform peer review is particularly relevant. Current AI systems can detect image manipulation, identify statistical anomalies, verify citations, check for plagiarism, and even evaluate logical consistency in arguments. These capabilities could restore quality control at scale, identifying fraudulent submissions before they enter review. Yet publishers configure

these systems to minimize rejection rates rather than ensure quality. Internal documents reveal deliberate decisions to set detection thresholds below levels that would identify known fraudulent papers. When publishers claim technological inability to combat paper mills while simultaneously suppressing technology that could detect fraud, they reveal complicity rather than incapacity.

Distributed ledger technology offers another suppressed innovation. Beyond blockchain's ability to create tamper-proof review records, distributed systems could enable entirely new publishing models. Researchers could submit papers to distributed networks where multiple journals compete for publication rights. Reviews could be portable between journals, eliminating redundant review cycles. Payment could be automatically distributed to reviewers, editors, and infrastructure providers. Smart contracts could enforce quality standards, automatically rejecting papers that fail specified criteria. These possibilities exist today but are blocked by publishers who recognize them as existential threats.

The resistance to innovation extends to seemingly minor improvements that would benefit researchers. Version control systems that track manuscript evolution, collaborative editing platforms that enable real-time cooperation, automated formatting tools that eliminate busywork, transparent pricing mechanisms that enable comparison shopping—all are technologically trivial but commercially threatening to publishers. The pattern is clear: any innovation that empowers researchers or introduces transparency is acquired, suppressed, or litigated into oblivion.

XI. The International Revolution: Global Coordination Against Fraud

The global nature of academic publishing creates both challenges and opportunities for reform. Publishers operate across borders, exploiting regulatory arbitrage to maximize extraction while minimizing accountability. A publisher sued in the United States can threaten to exclude American researchers while maintaining operations elsewhere. A country that caps publication fees faces publisher threats to prioritize nations without restrictions. This international dimension has long protected publishers from serious reform efforts. But it also creates vulnerabilities that coordinated international action can exploit.

The academic research enterprise is inherently international. Scientific knowledge recognizes no borders, and researchers collaborate globally regardless of nationality. This creates natural allies for reform—every country faces the same publisher exploitation, every research community suffers from corrupted peer review, every taxpayer funds the same fraud. When nations coordinate their response, publishers cannot play jurisdictions against each other. When researchers worldwide unite against exploitation, editorial networks lose their power. When international bodies establish standards, publishers must comply or lose access to global markets.

The diversity of international responses provides natural experiments in reform strategies. Germany's hard caps prove that publishers will accept lower fees rather than lose major markets. France's diamond open access demonstrates that quality publishing doesn't require commercial exploitation. China's domestic journal development shows that publisher claims of irreplaceable expertise are fiction. Brazil's SciELO network establishes that collaborative models can scale internationally. Each successful intervention provides evidence and precedent for broader reform.

The international dimension also expands enforcement options. Publishers incorporated in one country but operating in another face multiple jurisdictions' laws. Financial transactions cross borders, creating criminal liability in multiple nations. Editorial networks span continents, making their corruption subject to various legal systems. International trade agreements include provisions against fraud that could reach publisher conduct. The Hague Convention enables service of process and evidence gathering across borders. These tools remain largely unused against publishers but could multiply pressure exponentially.

The systematic exclusion of developing world research by Western publishers represents more than economic discrimination—it constitutes a form of scientific imperialism that perpetuates global inequalities and prevents solutions to humanity's greatest challenges. When publishers charge APCs that exceed annual salaries in developing countries, they ensure that research on problems affecting the global poor remains invisible. When editorial networks exclude researchers lacking Western connections, they silence voices that might offer crucial perspectives. When prestige hierarchies favor Western institutions, they create self-reinforcing cycles of advantage and disadvantage.

The consequences for global health are catastrophic. Diseases that primarily affect poor populations—neglected tropical diseases, conditions related to malnutrition, infections spreading in overcrowded settlements—receive minimal research attention because affected populations cannot pay publication fees. Researchers in affected regions who best understand these conditions cannot publish their findings in journals that influence policy and funding. The result is a global health agenda determined by what wealthy populations will pay to publish rather than what causes the most suffering worldwide.

Agricultural research faces similar distortions. Farmers in developing countries have developed sophisticated techniques for managing climate change, preserving biodiversity, and maintaining food security under extreme conditions. This knowledge, accumulated over generations and validated through practice, remains excluded from academic literature because practitioners cannot pay publication fees or navigate submission systems designed for Western academics. Meanwhile, Western researchers publish theoretical studies about developing world agriculture without incorporating local knowledge, perpetuating solutions that fail because they ignore contextual realities.

The climate implications are particularly severe. Indigenous communities possess crucial knowledge about environmental change, sustainable resource management, and adaptation strategies developed over millennia. When publishers exclude this knowledge through prohibitive fees and biased editorial processes, they impoverish climate science and delay effective responses. The communities most affected by climate change—and most experienced in adapting to it—are systematically excluded from conversations about solutions. Publishers who facilitate this exclusion bear responsibility for perpetuating ineffective climate policies that accelerate environmental destruction.

Academic publishing's international character means that purely domestic reform, while necessary, cannot be sufficient. Publishers operate across borders, research flows globally, and corruption anywhere affects science everywhere. Understanding international approaches reveals both the feasibility of alternatives and the necessity of coordination. The European Union's regulatory framework, Asian technological innovations, and Latin American commitment to open access provide models that

U.S. legal action can build upon while contributing uniquely American strengths in litigation and innovation.

The European Union's Plan S initiative demonstrates how coordinated funding policy can force publisher adaptation. By requiring immediate open access to all funded research and capping APCs, Plan S created a bloc too large for publishers to ignore.¹¹⁰ The initial publisher resistance—threats to exclude European authors, predictions of quality collapse—proved hollow. Publishers adapted by creating compliant options, revealing that their business models are more flexible than claimed. The lesson for U.S. reform is clear: coordinated pressure works. When the world's largest research funder (the U.S.) aligns with the world's most regulated market (the EU), publishers must comply or lose access to the majority of global research.

China's approach offers different lessons about state capacity to reshape publishing. Frustrated by Western editorial networks that marginalized Chinese research, China has built domestic publishing infrastructure that now rivals Western incumbents. Chinese journals have risen rapidly in impact metrics, Chinese researchers increasingly publish domestically first, and Chinese technology companies are developing AI-powered review systems that may leapfrog Western approaches. While concerns about political influence on Chinese publishing are legitimate, the rapid infrastructure development proves that publisher claims about irreplaceable expertise are false. Countries can build alternative systems when motivated.

India's battle against predatory publishing provides cautionary tales and enforcement models. As Indian research output exploded, predatory publishers targeted Indian researchers with fake journals offering quick publication for fees. The Indian government's response—blacklists, funding restrictions, criminal prosecutions—offers lessons for addressing systemic fraud. The University Grants Commission's CARE list of approved journals, while imperfect, shows how governments can create quality standards. India's willingness to prosecute predatory publishers criminally demonstrates that academic fraud need not be treated more leniently than other commercial deception. When publishers faced actual jail time rather than academic censure, fraudulent practices declined dramatically.

Japan's experience with research misconduct scandals illuminates both the reputational damage from publishing fraud and the possibility of systematic reform. High-profile retractions, including the STAP cell scandal, prompted national soul-searching about research integrity.¹¹¹ The response included strengthened misconduct investigations, publication audit requirements, and cultural shifts toward transparency. Japanese publishers have implemented some of the world's strictest conflict of interest policies and publication ethics standards. The lesson is that scandal can catalyze reform when coupled with cultural commitment to integrity over prestige.

Brazil's SciELO network proves that high-quality publishing doesn't require commercial exploitation. This cooperative electronic publishing model provides free access to both readers and authors while maintaining rigorous peer review. Supported by government funding and institutional contributions, SciELO demonstrates the viability of diamond open access at scale.¹¹² The network's expansion across Latin America, Spain, Portugal, and South Africa shows that alternative models can grow internationally.

U.S. legal reform could accelerate adoption of such models by removing barriers that currently favor commercial publishers.

The Nordic countries' coordinated negotiations with publishers offer templates for collective action. By negotiating as a bloc, Nordic universities and funding agencies secured better terms than any could achieve individually. Their willingness to walk away from bad deals—canceling subscriptions when publishers refused reasonable terms—demonstrated that even prestigious journals need academia more than academia needs any individual journal. The temporary loss of access was offset by increased use of alternative channels and pressure on publishers to return with better offers. This model scales: imagine if all U.S. public universities negotiated collectively.

Germany's Project DEAL negotiations with major publishers went even further, fundamentally restructuring the relationship between a major research nation and global publishers. By refusing to accept price increases and demanding read-and-publish agreements that included both access and open publication rights, German negotiators forced publishers to create new models.¹¹³ The temporary loss of access to some journals was offset by researcher solidarity and alternative access routes. The final agreements, while imperfect, demonstrate that publishers will adapt rather than lose major markets entirely.

African initiatives to combat exclusion from global publishing reveal both the human cost of current systems and the potential for innovation. African researchers face multiple barriers: high APCs relative to local salaries, editorial bias against research from developing countries, and technical barriers to accessing publisher platforms. Initiatives like African Journals Online, Research4Life, and institutional repositories are creating alternative dissemination channels.¹¹⁴ Legal reform in wealthy nations should consider global equity impacts, ensuring that dismantling exploitative systems doesn't create new barriers for researchers in developing countries.

The World Health Organization's push for pandemic research transparency during COVID-19 demonstrated both the possibility and necessity of rapid publishing reform. Faced with a global health crisis, publishers temporarily dropped paywalls, accelerated review processes, and enabled data sharing. This proved that claimed technical and economic barriers to open access are actually policy choices. The rapid reversion to exploitative practices once public attention waned shows that voluntary reform is insufficient. Legal mandates must make permanent what crisis made temporarily possible.

International scholarly societies provide venues for coordinated resistance to publisher exploitation. When the entire editorial board of a prestigious journal resigns in protest of publisher practices—as has happened repeatedly in recent years—they demonstrate that scholarly communities can reclaim control of their communication channels. These "editorial mutinies" often lead to new journals that maintain quality while eliminating exploitation. Legal reform could support such transitions by ensuring that editorial boards, not publishers, control journal titles and reputation.

The geopolitical dimensions of academic publishing fraud deserve extended analysis. When Western publishers exclude research from developing nations through prohibitive fees and editorial bias, they perpetuate scientific colonialism. Researchers in Africa studying local diseases, scientists in Asia

developing appropriate technologies, and scholars in Latin America documenting indigenous knowledge all face systematic exclusion from journals that shape global policy. This exclusion has real consequences: diseases affecting primarily poor populations remain understudied, technologies appropriate for developing contexts are ignored, and traditional knowledge that could benefit humanity is lost.

The brain drain facilitated by corrupted publishing systems compounds global inequality. Talented researchers from developing nations, unable to publish in "prestigious" Western journals, cannot advance in their home countries where promotion depends on such publications. They emigrate to Western institutions where network connections enable publication. Their home countries lose their best minds while wealthy nations benefit from trained researchers they didn't educate. Publishers profit from this displacement by maintaining the prestige hierarchies that drive it.

The implications for global health are particularly severe. When publishers charge \$11,000 to publish research on diseases affecting the global poor, they ensure such research remains underfunded and invisible. Tropical disease research, maternal mortality studies, and malnutrition investigations all face publication barriers that don't affect research on conditions affecting wealthy populations. The result is a global health research agenda skewed toward profitable conditions rather than those causing the most suffering. Publishers who create these disparities through pricing and editorial bias bear responsibility for perpetuating global health inequities.

XII. The Implementation Roadmap: From Theory to Transformation

The distance between documenting fraud and achieving reform is measured not in evidence—which is overwhelming—but in execution. Too many reform efforts have failed not because they lacked merit but because they lacked strategic coordination. Academic publishing fraud has persisted not through legal immunity but through the absence of sustained, coordinated pressure. The implementation roadmap addresses this gap, providing a concrete timeline with specific actions, responsible parties, and measurable milestones that transform theoretical legal remedies into practical market restructuring.

This roadmap is not wishful thinking but a strategic plan based on successful precedents from other industries. The tobacco litigation followed a similar trajectory from documentation through coordination to transformation. The airline industry reform proceeded through phases of investigation, enforcement, and restructuring. The financial services sector faced comparable coordinated pressure that forced fundamental changes. Each precedent provides lessons incorporated into this implementation strategy.

The roadmap recognizes that different stakeholders move at different speeds and respond to different incentives. Prosecutors need evidence and legal theories. Legislators need public pressure and political cover. Regulators need clear authority and administrative support. Researchers need protection from retaliation and alternative publication venues. Libraries need collective bargaining power and budget relief. The implementation strategy coordinates these different timelines and needs into a coherent campaign that maintains pressure while allowing tactical flexibility.

Success requires both immediate actions that demonstrate momentum and long-term structural reforms that prevent fraud from reconstituting. The roadmap therefore operates on multiple timelines simultaneously. Quick wins through targeted enforcement actions build credibility and generate media

attention. Medium-term legislative and regulatory changes create new frameworks for accountability. Long-term market restructuring ensures that reformed practices become permanent. This multi-speed approach maintains pressure while recognizing that systemic change takes time.

Phase One (Months 1-6): Building the Evidence Base and Coalition

The campaign begins with systematic evidence collection that transforms anecdotal complaints into actionable legal cases. Whistleblowers within publishing companies must be identified, protected, and supported to document internal knowledge of fraud. The False Claims Act's qui tam provisions provide both financial incentives and legal protection for insiders who expose systematic overcharging of federal grants. Former editorial board members who resigned over ethical concerns possess crucial evidence about publisher pressure to accept substandard papers. Authors whose papers were retracted but who paid APCs that were never refunded can document unjust enrichment. Researchers excluded by editorial networks can provide evidence of discriminatory practices.

Simultaneously, coalition building must create the organizational infrastructure for sustained pressure. Academic professional societies must be engaged to protect their members from retaliation. Library consortia must be organized to coordinate negotiating positions. University administrators must be shown how reform serves institutional interests. Congressional staff must be educated about the issue's importance to their constituents. Public interest groups must be recruited to amplify messages beyond academic audiences. International partners must be engaged to prevent publishers from playing jurisdictions against each other.

The messaging framework during this phase emphasizes themes that resonate across constituencies: taxpayer waste through inflated APCs, corruption of scientific integrity through paper mills, discrimination through editorial networks, and innovation suppression through market concentration. Concrete examples and human stories make abstract fraud tangible. Dr. Chen's retracted cancer research, multiplied by thousands, illustrates the human cost. The \$11,000 Nature charges for corrupted peer review exemplifies the financial exploitation. The 54-person network controlling elite journals demonstrates the discrimination. These narratives, repeated consistently across coalition members, create public awareness and political pressure.

Phase Two (Months 7-12): Initial Legal Actions and Regulatory Engagement

With evidence collected and coalitions formed, targeted legal actions commence to establish precedent and generate momentum. The first False Claims Act suits should target the most egregious cases—publishers who retained millions in APCs from retracted papers, journals with documented paper mill infiltration, and publications where editorial bribery is proven. These cases should be filed in favorable jurisdictions with experienced FCA counsel. The goal is not just recovery but establishing that publishers face liability for corrupted peer review.

State attorneys general should be engaged to investigate consumer fraud, focusing on the disconnect between advertised peer review quality and actual service delivery. Multi-state investigations multiply pressure and prevent forum shopping. The deceptive practices are clear: publishers advertise rigorous peer review while accepting papers reviewed in days rather than months, claim editorial excellence

while editors accept bribes, and promise global dissemination while restricting access. These investigations can proceed faster than federal litigation while building public awareness.

Federal agencies must be pressed to use existing authority more aggressively. NIH, NSF, and other funding agencies can immediately cap reimbursable APCs at reasonable levels, require detailed documentation of actual services provided, and exclude journals with high retraction rates from approved publication venues. The Office of Research Integrity can investigate misconduct by publishers, not just researchers. The FTC can examine deceptive advertising practices. The Department of Justice Antitrust Division can investigate market concentration and collusive practices. These agencies often need only political pressure and legal cover to act on authority they already possess.

Phase Three (Months 13-24): Legislative Campaign and Sustained Litigation

As initial legal actions demonstrate viability and generate media attention, the legislative campaign launches to create permanent structural reform. Congressional hearings provide venues for exposing publisher fraud to broader audiences. Witnesses should include researchers whose careers were destroyed by editorial networks, librarians who can quantify the financial drain, patients harmed by fraudulent medical research, and whistleblowers who can detail publisher knowledge of corruption. Publisher executives must be compelled to testify under oath about profit margins, peer review processes, and responses to fraud.

Draft legislation should be circulated for stakeholder input, refined through expert consultation, and introduced with bipartisan support. The Academic Publishing Accountability Act would cap APCs, mandate transparency, require refunds for retractions, and strengthen whistleblower protections. The Scientific Integrity Protection Act would address editorial conflicts, diversity requirements, and quality standards. The Fair Competition in Publishing Act would eliminate exclusive submission requirements and limit market concentration. These bills, even if not immediately passed, create frameworks for negotiation and voluntary reform.

The prosecution strategy for this phase includes expanding litigation to cover the full spectrum of publisher misconduct. Consumer protection actions should be filed in all major jurisdictions, creating a nationwide pattern that makes publisher practices untenable. Antitrust suits should challenge exclusive submission requirements and editorial network control. RICO investigations should target the most corrupted networks. Criminal referrals should be made for the most egregious cases of bribery and fraud. The goal is creating multiple pressure points that force systematic rather than cosmetic change.

International coordination becomes crucial during this phase. European allies implementing Plan S should be encouraged to strengthen requirements further. Asian countries developing domestic alternatives should receive technical support. Developing nations suffering from exclusion should be given platforms to document discrimination. International trade forums should consider whether publishing fraud violates trade agreements. The message must be clear: reform is inevitable, and publishers can either adapt voluntarily or face coordinated global enforcement.

Phase Four (Years 2-3): Market Restructuring and Permanent Reform

The final phase transforms temporary pressure into permanent structural change. By this point, successful litigation should have established legal precedents, legislative action should have created new regulatory frameworks, and international coordination should have eliminated publisher escape routes. The focus shifts from attacking existing fraud to building sustainable alternatives that prevent future corruption.

Market restructuring proceeds through multiple mechanisms. Antitrust remedies break up publisher portfolios and eliminate exclusive submission requirements. New funding agency regulations cap APCs and require service verification. Criminal convictions deter future fraud through personal liability for executives. International agreements prevent regulatory arbitrage and create global standards. The goal is creating a competitive marketplace where quality and efficiency determine success rather than network connections and extraction capabilities.

Alternative platforms receive legal protection and regulatory support to challenge incumbent monopolies. Preprint servers gain recognition as legitimate publication venues for federal compliance. Open peer review systems receive funding and technical support. Community-owned publishing cooperatives are given favorable tax treatment and regulatory accommodation. The law actively promotes alternatives rather than merely tolerating them.

Monitoring and enforcement mechanisms ensure that reforms remain effective. Regular audits of peer review quality prevent backsliding. Whistleblower programs provide ongoing fraud detection. International cooperation shares information and coordinates responses. The system is designed for resilience against future attempts to capture and corrupt scholarly communication.

XIII. Conclusion: The Reckoning Arrives

The evidence is overwhelming, the law is clear, and the time for action is now. Academic publishers operate a fraudulent enterprise that corrupts science while extracting billions from taxpayers. They charge \$11,000 for peer review they don't provide, operate networks where 54 people control 50% of publications through cronyism, and enable paper mills that flood journals with fake research. They've created a system where federal grants fund editorial bribes, where retractions exceed 10,000 annually, and where merit is subordinated to connections.

This is not market failure—it's criminal fraud. The same conduct that sent Enron executives to prison, that triggered billion-dollar banking settlements, and that transformed entire industries through prosecution plays out daily in academic publishing.¹¹⁵ The differences are academic prestige and regulatory capture, not legal substance.

The consumer parallels make the fraud tangible. Hotels cannot charge "resort fees" for broken pools.¹¹⁶ Airlines cannot sell "first class" then provide coach.¹¹⁷ Streaming services cannot promise "unlimited content" while slashing libraries.¹¹⁸ Yet publishers charge Bentley prices for bicycle services, and we've accepted it as inevitable. It's not.

The legal arsenal stands ready for deployment. The False Claims Act provides treble damages for defrauding federal programs.¹¹⁹ Consumer protection laws enable state enforcement against deceptive

practices.¹²⁰ Antitrust law offers tools for breaking monopolistic strangleholds.¹²¹ Criminal statutes address systematic corruption.¹²² The Lanham Act remedies false advertising.¹²³

The precedents guide action clearly. OMICS demonstrates that publishers face consumer law.¹²⁴ Airlines show how coordinated enforcement transforms industries.¹²⁵ Duke proves academic fraud triggers nine-figure liability.¹²⁶ What's needed isn't new law—it's the will to enforce existing law against an industry that has placed itself above accountability.

December 31, 2025 approaches—the date when federal open access mandates create unprecedented opportunity for either reform or accelerated fraud.¹²⁷ Without immediate action, hundreds of millions more will flow from research to extraction, from discovery to deception, from public benefit to private profit.

The path forward is clear. Publishers must face immediate investigation for False Claims Act violations. State attorneys general must coordinate consumer protection enforcement. Congress must hold hearings that expose fraud publicly. Whistleblowers must be protected and rewarded for exposing corruption. International partners must coordinate to prevent publishers from exploiting jurisdictional differences.

The alternative—continued acceptance of systematic fraud—is intolerable. When publishers corrupt peer review through paper mills and bribes, they poison the scientific record upon which medicine, engineering, and policy depend. When editorial networks exclude research based on connections rather than merit, they stifle innovations that could save lives and solve global challenges. When billions flow from research to extraction, society loses discoveries that could transform human knowledge.

The prosecution rests its case. The evidence is overwhelming, the law is clear, and the time for action is now. Academic publishing's systematic fraud ends not through wishful thinking but through courtroom victories, not through academic debates but through damage awards, not through resignation but through the righteous application of law against those who believed themselves beyond its reach. The reckoning has arrived.

The moral dimensions of academic publishing fraud extend beyond financial theft to fundamental questions about the purpose of science in society. When publishers corrupt peer review, they don't just steal money—they poison the well of human knowledge. Every fraudulent paper that enters the literature because an editor took a bribe represents a lie that other researchers will build upon. Every legitimate study excluded because its authors lack network connections represents a truth that may never be discovered. The cumulative effect is not just degraded science but degraded public trust in science itself.

Consider the downstream consequences when fraudulent research influences medical practice. A fabricated study about drug efficacy doesn't just waste resources—it may lead physicians to prescribe ineffective or harmful treatments. Patients suffer. Some die. Their families grieve. Healthcare systems waste billions on interventions based on corrupted evidence. Public health policies incorporate false findings. The human toll multiplies exponentially from a single editorial decision to accept a paper in exchange for a bribe.

The engineering and technical implications are equally grave. When paper mills fabricate materials science research, engineers may incorporate false data into safety-critical designs. Bridges may be built with inappropriate materials. Aircraft components may be manufactured to fraudulent specifications. Industrial processes may be optimized based on fictional results. The physical infrastructure of civilization becomes unreliable when its scientific foundations are corrupted. Publishers who enable such fraud through willful blindness to paper mill infiltration bear moral if not legal responsibility for resulting failures.

The environmental consequences demand particular attention. Climate science has faced decades of deliberate misinformation from fossil fuel interests. When publishers allow fraudulent climate denial papers through corrupted peer review, they provide ammunition for policies that accelerate environmental destruction. One fraudulent paper questioning climate science, amplified through political channels, can delay crucial action by years. The resulting damage—measured in extinct species, destroyed ecosystems, and displaced populations—dwarfs any financial fraud.

But this is also a moment of unprecedented opportunity. The convergence of federal open access mandates, international reform movements, technological innovation, and growing public awareness creates conditions for transformation that may not recur. The legal tools exist. The evidence is overwhelming. The coalition is forming. The time for action is now.

Academic publishing's systematic fraud ends when we decide it ends. The choice is ours. The law awaits our will to enforce it. Justice depends on our courage to act. The future of science—and the knowledge upon which human flourishing depends—hangs in the balance. The prosecution has presented its case. The verdict is for history to render, through actions we take today.

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