



THE PREDATORY PARADOX

ETHICS, POLITICS, AND PRACTICES
IN CONTEMPORARY SCHOLARLY
PUBLISHING

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1. Ethical, Legal, and Policy Issues in the Knowledge Creation Paradigm

The Case of OMICS International, Open Access, and 'Predatory' Publishing

The paradigm of valid scientific and academic research is grounded in 1) ethically conducted research. These are scholarly investigations that follow governmental and institutionally-mandated rules on research with human subjects, conflict of interest, falsification, and fabrication of data, manipulation of research materials; 2) presentation of this research in reputable, ethically sound, peer-reviewed professional conferences that do not employ misleading and deceptive techniques to lure researchers to present in these conferences, or fraudulently associate them with profit-making ventures without their knowledge and consent and 3) ultimately publication of the research in ethically produced, peer-reviewed, scholarly journals in physical space or cyberspace. Ethical scholarly journals follow institutional and industry ethical guidelines on authorship, plagiarism, conflicts of interest, data reproducibility, intellectual property, and so on. The assumption of this professional self-regulation paradigm is that if all researchers, publishers, and other stakeholders in the knowledge creation enterprise follow tried-and-true ethical principles, scholarly research and results will have validity in the eyes of the profession, and of society as a whole. This will ultimately lead to the greatest good for all stakeholders in the scientific research and knowledge-creation enterprise (funders, regulators, academia, scholars, researchers, research institutes, libraries, databases, and so on).

Researchers and scholarly publishers ply their trade within the framework of professionally created codes of ethics. These are essentially ‘epistemic constraints’, to borrow Figdor’s expression (2010: 153), that ensure the ethical and responsible conduct of science in the context of professional self-regulation. The paradigm of scholarly research, publication, and curation was grounded on the *laissez-faire* principles of the free flow of ideas, goods and services, and the free and uninhibited flow of discourse, academic freedom, and permissionless innovation. These legal and ethical standards, values, norms, and routines enabled scholarly research and publication to become self-regulating ‘fields’ of knowledge production, processing, curation, archiving, and retrieval (Bourdieu 1977). The research and publication industry is similar to a medieval craft or artisans’ guild like the printers’ guild, where groups of skilled artisans set and maintained the standards of goods produced, jealously guarded the integrity and reputation of their craft from those who would bring it into disrepute, punished those who fell below professional and ethical standards, and rewarded those who excelled and performed over and above expectations (‘Guild’ 2023).

The scholarly research and publication paradigm has evolved into a closed, hyper-competitive and highly profitable industry that is generously supported by government, research institutions, and various industries engaged in scientific and technological research for pecuniary reasons. However, it has also become a billion-dollar, transnational, oligopolistic knowledge-capitalism industry, whose stock-in-trade is digitized knowledge that is stored in subscription-based databases. This industry has set itself up as the de facto gateway to, and broker of, knowledge. It charges excessive amounts of money for subscriptions and access to scholarly journals, books, and other forms of knowledge, and it has set up barriers to exclude competition. It has become a pay-for-access, subscription, and site-licensing fee system of knowledge production, curation, and archiving dominated by a handful of university presses, foundations, and especially a few oligopolistic global corporations. Alberts and others (2014) summarized the problematic situation of elite, legacy Science, Technology and Medicine (STM) research and publishing in the age of diminishing funding and hyper-competition in academia as follows:

As competition for jobs and promotions increases, the inflated value given to publishing in a small number of so-called 'high impact' journals has put pressure on authors to rush into print, cut corners, exaggerate their findings, and overstate the significance of their work. (p. 5774)

They further lamented the fact that the situation was being made worse by the editors and reviewers of elite scientific journals who act as overzealous gatekeepers. These gatekeepers create more and more stringent conditions for access to the coveted spaces of their journals: 'publishing scientific reports, especially in the most prestigious journals, has become increasingly difficult, as competition increases, and reviewers and editors demand more and more from each paper' (p. 5774). The reality is that well-funded, elite STM publishing, 'was getting bigger and bigger, more and more exclusive, and harder for regular researchers and faculty members to feature in' (Eko and Koerber 2020: 62).

New information and communication technologies that emerged from the 1950s onwards profoundly and irreversibly changed the traditional, subscription-based, pay-for-access model of scholarly journal publishing, including computers, network technologies, digitization, CD-ROMs, databases — where huge amounts of information could be digitized, curated, and archived for easy retrieval in electronic form — telecommunications networks, and especially the advent of the internet and the World Wide Web. The internet was to become the ultimate online space on which multiple technologies and the media converged and made it possible for scholarly research and publication to be produced digitally, published, curated, and archived. These technologies also facilitated the digitization and transfer of analogue versions of journals from physical information storage spaces (libraries and archives) to the dematerialized world of cyberspace for easy access and retrieval by persons in all parts of the world (Eko and Koerber 2020). All that was needed was an internet connection. The invention of innovative search engines made searching and retrieval of material from databases as easy as typing a few key words. Additionally, United States federal government policy orientations created an enabling environment and an impetus for the rise of a market-based approach to the internet and information and communication technologies. In 1997, the Clinton-Gore administration offered the world a vision and framework for the expansion and regulation of global electronic commerce on the

fledgling internet. This was a *laissez-faire*, capitalist, free-market, free-flow-of-information framework under which governments were to assume a minimalist regulatory posture towards the internet (Clinton and Gore 1997). In 2004, Google, which had launched an innovative, highly successful model of linguistic capitalism — the world's largest algorithmic-based internet search engine — announced that it had launched 'The Google Books Library Project'. This was an innovative project that had the potential to radically transform how human beings created, stored, retrieved, and utilized the mighty rivers of information and knowledge that had been accumulated since ancient humans began to paint on the walls of their caves. The Google Books project involved 'space-shifting', the digitization and transfer of whole books, including bound scholarly journals, from the real, physical geographic spaces of libraries and archives to databases and servers in cyberspace, where internet search results would display snippets from these books to readers as part of Google's commercial search or linguistic capitalism business model (Eko and others 2012).

These developments gave archives and library collections a new lease on life. Newspapers, magazine, and journal publishers licensed their archives of collective works (periodicals) to electronic databases like Lexis-Nexis, which digitized these articles and stored them in paywalled interactive databases where they were searchable, retrievable, downloadable, printable, and readable in a number of digital formats as single entities removed from the original collective periodical volumes in which they had been published. Digital databases essentially became another lucrative revenue stream for both commercial and university journal publishers (Eko and others 2012). Though the Supreme Court of the United States ruled that transferring the work of freelance newspaper reporters that was first published in physical space as part of collective works (newspapers and magazine editions) to databases and online platforms without compensating them violated their copyright (Schroeder and others 2021), that decision did not apply to contributors to scholarly journals, which operate under a different business model, and authors had no monetizable copyright claims to the scholarly articles they wrote. Some European jurisdictions recognize the intangible moral rights of authors, but these are not necessarily economic or monetizable rights.

These technological developments led to a paradigm shift in scholarly publishing — the gradual emergence of open access publishing, the model whereby scholarly publishers make their journals and books ‘open’ and accessible to all readers free of charge, often in exchange for processing charges paid by the author or research funder (Björk and Solomon 2012). Globalization and the interconnection of nations, peoples, educational systems, and different cultural geographies of research, knowledge creation, scholarly publication, intellectual property, and curation have resulted in a diffusion of the ‘open access’ model of academic research and publishing from its locus of origin in the United States to the rest of the world, where it was reinvented and applied to diverse cultural contexts without regard to the ethical, legal and cultural underpinnings of scholarly research and publishing.

Aim of This Chapter

The aim of this chapter is to explore the ethical, legal, and economic issues involved in scholarly journal publishing in the context of knowledge creation, including the transfer and monetization of academic publishing from real space (physical journals, libraries, physical archives) to the digitized, dematerialized, algorithmic-based sphere of cyberspace (the internet, databases and cloud-based curation and archival platforms). It explores the ethics of scholarly publishing from a historical, moral-philosophical, and legal perspective. It uses, as a case study, the so-called OMICS Group affair, the federal case in which the United States Federal Trade Commission (FTC) charged an international, ‘predatory’ academic conference organizer and journal publisher, OMICS Group, with violating federal law by engaging in misleading, deceptive and unfair business practices in the domain of scholarly conference organization and journal publishing. This case demonstrates the transfer of academic journal publishing from the realm of industry self-regulation, where professional codes of ethics recommend acceptable professional conduct, to the domain of law, which sets forth rules and regulations that command legally acceptable behavior. Violators of professional publication ethics often face no criminal or civil penalties because professions do not have enforcing powers under the law. By way of contrast, violators of federal law

face criminal and civil penalties. FTC litigation against OMICS Group and landmark court rulings in the case demonstrate that the US Federal Government and federal courts consider the excesses of the publication and monetization practices of predatory publishers to be violations of laws governing business competition in the American *laissez-faire*, capitalist marketplace. This chapter explores the open access phenomenon and its ethically problematic derivative within the conceptual frameworks of deterritorialization and rule utilitarianism. The chapter describes and explains the deterritorialization (transfer) of scholarly publishing from physical space to the dematerialized realms of cyberspace, and explores the ethical challenges spawned by mercantilist journal publishers who do not care for the niceties of the paradigm of the ethical and responsible conduct of research and publishing.

Theoretical Perspective: Rule Utilitarianism

When peer reviewers, editors, and publishers make judgments about the rightness and wrongness of research actions, motives, and ends, they move into the domain of ethics or moral philosophy. In democratic societies, academic journals publish within systems of academic freedom that are guaranteed by law and are buttressed by professional publishing codes of ethics. A fundamental principle of ethical or moral reasoning is that actions must always be guided by rules or moral precepts that are designed to promote the aggregate good or the general well-being. Philosophers call this kind of ethical reasoning 'utilitarianism'. Berkeley (1712) advanced the rule utilitarian approach, which focuses on the implications and impact of rules or codes of ethics. Under this theory, all actions must be judged in terms of their conformity to rules that, if obeyed, would lead to the 'greatest good' (p. 8). Therefore, actions are judged to be morally right or wrong depending on their effects on society or on others. That is to say, acts are evaluated as morally wrong if they violate codes of ethics that are designed to result in some aggregate professional or social good. The main tenet of rule utilitarianism was memorably stated by Jeremy Bentham, who suggested that following rules would lead to 'the greatest happiness for the greatest number' (Crimmins 2021: 4). Rule utilitarianism is applicable to academic journal publishing because academic publishing duties and responsibilities are

synthesized and encapsulated into codes of ethics. Professional codes of ethics or codes of conduct include the Core Practices of the Committee on Publishing Ethics (COPE). These codes of ethics are what Merrill calls 'accountability mechanisms' that ensure that peer reviewers, publishers, journalists and media systems are accountable to their professions, and to society for their messages (De Beer and Merrill 2003: 29).

The premise of this chapter is that predatory journals violate the norms of ethical and responsible conduct of research and journal publishing, thereby leading to negative consequences for scholarly publication. The legal and policy analysis that forms the basis for this chapter focuses on the actions of the United States Department of Health and Human Services (DHHS), the National Institutes of Health (NIH), and especially, the case *Federal Trade Commission v. OMICS Group, Inc.*, a landmark case in which the Federal Government of the United States sued a so-called 'predatory' conference organizer and journal publisher for engaging in anti-competitive, deceptive, and misleading practices that allegedly violated federal law. This case was unprecedented because it was the first time the federal government had sued a so-called 'predatory' publisher for engaging in practices that the government considered illegal.

Origin of Open Access Publishing

The open access phenomenon emerged in the United States in the 1990s as a result of the confluence of multiple dynamic forces, such as changing governmental and institutional research and funding priorities, as well as the emergence of information and communication technologies and databases (Tennant and others 2016). These innovative digital technologies enabled the digitization of published material. They also created the dematerialized world of cyberspace, and multiple databases and platforms that facilitated the publication, curation, and relatively easy retrieval of information and knowledge. Scholarly publication is a paradigm, or way of reviewing and publishing that is part of the knowledge production and curation system, and each country has its values, worldviews, routines, and practices that are taken for granted. At the end of World War II, the United States was the indisputable center of higher education and scientific research. The scholarly publishing

industry took advantage of the post-war economic boom and used different business and marketing strategies to create demand for scholarly publications in STM, as well as the humanities and the social sciences (Greco 2016). Alberts and others (2014) suggest that generous research funding by the NIH, the National Science Foundation (NSF), and numerous other federal agencies, foundations, advocacy groups, and academic institutions, led to a 'remarkable outpouring of innovative research from American laboratories' (p. 5773). This hypercompetitive scientific research and scholarly publication system was dominated by large, prestigious university presses, institutional and oligopolistic scholarly publishers. The lucrative, and expensive (for libraries and users) subscription-based, pay-to-access system essentially made these dominant scholarly players the gatekeepers of knowledge. Alberts and colleagues suggest that things began to change when research funding stalled in the post-Cold War era due to reductions in federal and institutional funding.

In response to the closed, elitist, subscriptions and site-licensing fee model of the scholarly journal industry, and its throttling effect on the dissemination of knowledge and information, in 2000, a number of high-profile American researchers including a Nobel prize winner, Harold Varmus, sought 'to catalyze a revolution in scientific publishing' by proposing a 'paradigm shift' (Kuhn 1970) in scholarly journal publication and economics — an 'open access' publication model (Brown and others 2003). They stated that the 'essential rationale of the pay-for-access model has disappeared, now that electronic publication and Internet distribution have become routine. Instead, this business model is what stands in the way of all the benefits of open access' (Brown and others 2003: 2). These scholars argued for launching an 'open access model', a free-market, journal economics approach that would be different from the traditional pay-to-access business model of scholarly publication. The open access publication model they were proposing was premised on the idea that everything published would be open and available to all researchers:

Open access would eliminate [corporate and university press] monopolies over essential published results, diminishing profit margins and creating a more efficient market for scientific publishing — a market in which publishers would compete to provide the best value to authors

(high quality, selectivity, prestige, a large and appreciative readership) at the best price. (Brown and others 2003: 2)

The open access model, and especially its proposed APC component would be so successful that it would revolutionize scholarly journal publishing. The idea behind the open access publication model was that scientific research and publication go hand in hand. As such, open access publishing would be funded by research funders as part of research grant budgets. As a result, everything published:

[...] will immediately be freely available to anyone, anywhere, to download, print, distribute, read, and use without charge or other restrictions, as long as proper attribution of authorship is maintained. Our open-access journals will retain all of the qualities we value in scientific journals — high standards of quality and integrity, rigorous and fair peer-review, expert editorial oversight, high production standards, a distinctive identity, and independence. (Brown and others 2003: 1)

Open access was an attempt to shield academic research, knowledge creation and scholarly publication from the vicissitudes and shifting sands of research funding, changes in funding priorities, and funding cuts by governmental and non-governmental institutional funders. As formulated by its initiators, the open access publication model was seen as the answer to the oligopolistic, pay-for-access, subscription and site-licensing fee system of knowledge curation and archiving dominated by a handful of university presses, foundations, and especially a few oligopolistic global corporations (Johnson and others 2018).

According to Björk and Solomon (2012), the innovative open access model quickly ran into opposition from the legacy scholarly journal publishers who were the gatekeepers of the subscription-based, pay-to-access model. In an article entitled 'Open Access v. Subscription Journals: A comparison of impact', they framed the adversarial relationship between the new open access model and the traditional, subscription-based, pay-for-access mercantile model of scholarly publishing, arguing that history has shown the concerns and objections of the legacy academic publishers were overblown attempts to protect their oligopolies. The first open access journals were created in the late 1990s by individual scientists and researchers who desired to break away from the stranglehold of the legacy publishers. However,

These journals were not considered by most academics a serious alternative to subscription publishing. There were doubts about both the sustainability of the journals and the quality of the peer review. These journals were usually not indexed in the Web of Science, and initially they lacked the prestige that academics need from publishing. (Björk and Solomon 2012: 2)

Legacy publishers and publishers' organizations were decidedly against open access. They claimed that 'the proliferation of OA would set in motion changes in the publishing system which would seriously undermine the current peer review system and hence the quality of scientific publishing' (Björk and Solomon 2012: 2). Nevertheless, these early open access journals had succeeded in breaking the stranglehold of the legacy publishers on scholarly journal publication. Some of these open access journals occupied niches in the emerging electronic publication landscape and thrived in these niches. This led to what Björk and Solomon (2012) call a 'second wave' of open access journals that consisted of 'established subscription journals, mainly owned by societies'. These publishers decided 'to make the electronic version of their journal(s) freely accessible' (p. 2). Open access, as conceptualized by Harold Varmus and his colleagues, began to take shape and diffuse from real space to virtual space, and to different cultural geographies of scholarly publishing and intellectual property. Björk and Solomon (2012) assert that:

The third wave of OA journals was started by two new publishers, BioMedCentral and Public Library of Science (PLOS). They pioneered the use of article processing charges (APCs) as the central means of financing professional publishing of OA journals. Since 2000 the importance of the APC business model for funding OA publishing has grown rapidly. BioMedCentral was purchased in 2008 by Springer. (p. 2)

Most large commercial publishers now have lucrative, open access journals and open access book publishing divisions funded by article and book processing fees ranging from \$2000 to \$3000 per article (Björk and Solomon 2012), and sometimes much higher (Else 2020). In 2022, the global publishing conglomerate, Springer Nature, 'celebrated' publication of its one millionth gold open access article. The multi-national oligopolistic scholarly publishers have joined the open access movement, which they had bitterly opposed on the

grounds that it undermined academic peer review, and made it an important component of knowledge capitalism. Indeed, in August 2023, *The Chronicle of Higher Education* published an article written by two publishing industry professionals who lamented what open access publishing has become — a sphere of corporate domination. The title was as apt as it was troubling: ‘The Corporate Capture of Open Access Publishing’ (Kember and Brand, 2023).

The open access phenomenon has revolutionized scholarly publishing and gone mainstream. By 2021, it had spawned the Directory of Open Access Journals (DOAJ), a community-curated, online, global registry of more than 17,500 peer-reviewed, open access journals covering science, technology, medicine, the social sciences, arts, and humanities. These journals make all their content available free of any charge, and without delay or user-registration requirements to all readers (‘About DOAJ’ [n.d.]). Other notable developments include the Open Access Publishing in European Networks (OAPEN), a collaborative that seeks to develop and implement open access in the Humanities and Social Sciences; Open Access Books | InTech, which publishes open access books and journals in the Sciences, Technology and Medicine; and the Directory of Open Access Books (DOAB), an open access book publishing service which provides a searchable index of peer-reviewed open access monographs and edited volumes, with links to full text editions of books hosted on publishers’ websites or online repositories (Cordón-García and others 2013).

Despite its success, open access is not without its problems. Money has become the greatest obstacle to scholarly publishing. Outside the well-funded research universities, the burden of paying for scholarly publication under the open access model soon fell on scholars and authors desperate to publish to advance their careers, rather than on governmental and institutional funders as proponents of the model had anticipated. If anything, open access has widened the knowledge and publication gap between the haves and the have nots in the global academic enterprise and exacerbated the problem of intellectual diversity and productivity between researchers in the Global North and the Global South. These and other factors led to the emergence of multiple models of open access, the most pernicious of which is so-called predatory publishing, which takes advantage of researchers who do not

have access to the legacy publication avenues or the funds to become part of the pay-to-publish open access paradigm.

Paradigm Shift in Scholarly Publishing: Open Access and the Rise of ‘Predatory Journals’

The open access paradigm quickly diffused to all parts of the world, attracting in its wake for-profit ‘predatory’, purely mercantile, journals and ‘scientific conferences’ of dubious quality that do not care for the niceties of research or publication ethics and academic peer review, which are the very foundation of the open access model that had emerged in the United States. The internet and its associated social networking sites made open access a global phenomenon. While early open access journals were legitimate and mostly ethical attempts to bypass the stranglehold of the capitalist knowledge publishing industry, predatory publishers were not so. They were purely mercantilist ventures who deceptively and misleadingly took advantage of globalization — the interconnection of nations, cultures and peoples that was made possible by the internet and its innovative platforms in cyberspace — to bypass the barriers to market entry that had been erected by the traditional, legacy gatekeepers of scholarly academic publishing, and make a quick profit. They paid no heed to the niceties of the ethical and responsible conduct of research and publishing.

The phenomenon of predatory journals emerged during the first decade of the twenty-first century in response to a number of market- and technology-driven revolutionary changes that took place in the field of scholarly publishing at the end of the Cold War, the period when the internet was being transformed from a network of computers that was part of the command-and-control system of the United States Department of Defense, to a global assemblage of platforms of electronic commerce, cultural exchange, international, inter-personal, and social communication (Eko 2001). Predatory scholarly publishing emerged in the interstices between the transition of scholarly publishing from physical space (the traditional scholarly publishing model of printing and distributing scientific journals to institutional subscribers and other paying customers), to the innovative information and communication technology platforms in cyberspace. Indeed, a major factor that

led to the emergence of predatory publishing was the ease of online publishing and the easy electronic transfer of money from jurisdiction to jurisdiction. This is crucial because predatory publishing is a money-making phenomenon that took advantage of the internal contradictions, shortcomings, and ferment in the field of scholarly journal publication. Predatory publishers emerged in the field of scholarly publication at a time of 'radical discontinuities', to borrow the expression of Corfield (2007), that had led to a ferment in the field of scholarly publication. These discontinuities included 1) systemic flaws, contradictions, hyper-competitiveness, change of funding priorities and disequilibrium in the academic research paradigm and scholarly publishing industry; 2) the development of information and communication technologies and the resultant digitization and transfer of journal publication and curation from the physical spaces of libraries and archives to the internet and cyberspace; and 3) the emergence of open access publishing with its lucrative article publication charge business model (Brown and others 2003; Eko and Koerber 2020).

The Legal and Ethical Challenges Posed by Predatory Publishing

Predatory journals are in fact 'parodies' of real scholarly journals. As noted in the previous chapter, the term 'predatory publishers', was coined in 2012 by Jeffrey Beall, who had started his list of suspect journals and publishers in 2008 (Beall 2012). Predatory journals are considered a bane to the field because they do not care for the niceties of tried-and-true professional publication standards. They ride roughshod over scholarly publication ethics in order to make a quick buck. The term 'predatory journal' or 'predatory publisher' has become a contemptuous, denunciative, and exclusionary epithet that members of the commercial and academic scholarly publishing industry have accepted as the appropriate nomenclature for the new category of unorthodox, commercial publishers that began to enter the scholarly publishing market in the early 2000s (Eko and Koerber 2020). Some researchers, acting out of good faith, knowingly review for predatory journals, hoping to increase the number of journals they review for, often with the mistaken expectation that this 'service' to the

questionable fringe of scientific publishing would improve the quality of these predatory journals to the point where they would eventually become alternatives to the elite journals (Van Noorden 2020).

Grudniewicz (2019) advanced the following 'consensus' definition of predatory journals and publishers:

Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices. (p. 211)

Predatory publishing arose out of the shortcomings of the scholarly research and publication paradigm. Within a few years of the emergence of the open access publishing paradigm, a new kind of entrepreneurial, free market, 'open access' online publisher emerged and started to take advantage of the hypercompetitive publication environment of scholarly research and publication. They mimicked open access publishing and capitalized on the lucrative APC model. They offered a quicker and shorter path to the El Dorado of scholarly publication for a fee — without paying heed to the professional and ethical standards or safeguards of traditional scholarly publishing. Their deceptive and misleading practices posed all kinds of legal and ethical challenges to the knowledge creation, publication, curation, and archiving model. It is estimated that there are more than 9,000 verified predatory journals generating some \$75 million in revenues annually (Johnson and others 2018). Furthermore, some predatory publishers have been known to deliberately confuse article submitters. They do this by hijacking some legitimate journals and creating fraudulent websites that mimic the legitimate journal in order to attract submissions and fraudulently collect article publication charges (Johnson and others 2018). The danger that predatory publishers pose to the scholarly or academic publishing industry is existential because they undermine the fundamental philosophy and ethics of the academic peer review process. Johnson and others (2018) present an interesting summary of the quality control purpose of peer review that is being undermined by predatory journals. They state that the fundamental purpose of peer review is 'to ensure that only good science or scholarship gets published, and that work that does not meet acceptable standards does not enter the journal

literature' (Johnson and others 2018: 49). Scholarly publication has certain frameworks or 'contextual matrixes', to borrow the expression of Pierre Legrand (2003) that shape and structure its *modus operandi*. By skipping the scientific publication paradigm, predatory journals have introduced discordant realities into the scholarly publication process. These issues have become salient in the light of public warnings issued by the United States DHHS, a cease-and-desist order from the NIH, and legal action undertaken by the FTC against international, so-called 'predatory publisher' and 'predatory scientific conference organizer', OMICS Group. That landmark case and its \$50.1 million judgment against OMICS Group moves scholarly journal publishing from the realm of ethics — self-regulating, ethically responsible, scientific knowledge production, public presentation in conferences, and ethical publication — to the realm of law, which commands specific legal behavior under intellectual property and consumer protection law.

Predatory Publishing and its Drug Company Funders

One of the most controversial aspects of the predatory publishing phenomenon is its relationship with the global medical and pharmaceutical research industries that are derisively called 'Big Pharma'. The reality is that despite their reputation for unethical, deceptive, and misleading publication practices, some predatory publishers have financial backers with deep pockets, who have a stake in publicizing their research activities by all means possible. Many medical and pharmaceutical research funders have sponsored so-called predatory conferences, presented their research in them, and published in their journals. Researchers at global pharmaceutical corporations, including AstraZeneca, Bristol-Myers Squibb, Gilead Sciences, Pfizer, and Merck submit papers to predatory journals, and fund or participate in predatory scientific conferences. These global medical and pharmaceutical research corporations have funded and participated in the 'predatory' scientific conferences and allowed their researchers to present the results of their research in these conferences and publish them in their journals. For example, OMICS Group of Hyderabad, India, and its subsidiaries, iMedPub, Conference Series, have been a beneficiary of the sponsorship of the global medical and pharmaceutical

corporations (Deprez and Chen 2017). When the major global medical and pharmaceutical corporations fund and support so-called ‘predatory conferences’ and allow their scientists to publish their research in predatory journals, they do so out of self-interest. These conferences become outlets for pharmaceutical and other types of research that would take a longer time to go through the regular peer-review process. This makes it clear that there is a disconnect between tried-and-true ethical research, professional conferences, and publication values, on the one hand, and the unethical practices of profit-seeking predatory conferences, on the other hand. The symbiotic relationship between these global corporations and predatory conference organizers and publishers — and they are often one and the same entity — raises issues of research validity. This unethical and irresponsible publication of research clearly goes against the values of rule utilitarianism. It does not promote the greatest good for the greatest number.

From Professional Self-Regulation to Regulated Self-Regulation: The OMICS Group Affair

The final component of this chapter focuses on the actions undertaken by the United States government in response to the excesses of the predatory publishers. The unethical and illegal actions of OMICS Group and its affiliates, iMedPub and Conference Series, brought the ire of the US federal government onto the India-based company. Johnson and others (2018) described the modus operandi of predatory journals, whose business model is to prey on unsuspecting researchers and professors who, driven by the ‘publish or perish’ ethos of American higher education that is fast becoming the global norm, are always on the lookout for publication outlets for their research. Predatory journals capitalize on this situation and offer themselves as options. They ‘often promote themselves to potential authors through bulk, sometimes spam emails, frequently have fictitious editorial boards and in many cases use the Gold Open Access [article publication charge] model to get money upfront before an author can detect whether their article has been subjected to any peer review whatsoever’ (Johnson and others: 82). The unethical practices of the so-called OMICS affair became salient regulatory policy issues when several national organizations and the

US federal government acted. Those actions included public warnings issued by DHHS, a cease-and-desist order by the NIH, and legal action undertaken by the FTC against OMICS Group and its affiliates. In effect, after OMICS Group ignored the cease-and-desist orders of the NIH, which had accused the international conference organizer and publisher of intellectual property violations, that agency referred the matter to the FTC, the independent federal government agency charged with policing deceptive, misleading, and unfair competition under the FTC Act of 1924. In 2016, the FTC sued OMICS Group in a federal court in Nevada. That was because the OMICS Group Inc. was registered in Nevada, though it had its principal place of business at HITEC City, Hyderabad, India.

The unprecedented case, 'FTC v. OMICS Group', is a legal dispute that involved NIH and FTC against academic publisher and conference organizer OMICS Group, Inc. and its affiliates, which publish hundreds of purportedly open access online academic journals and organize fee-paying international conferences. It all began in 2013 when DHHS, a major funder of research, sent a warning letter to OMICS Group, stating that 'We are aware of multiple instances where the [OMICS] website uses the name of the NIH, its Institutes, PubMed Central, or the names of NIH employees in an erroneous and/or misleading manner' (Kaiser 2013: 4). When two NIH officers became the victims of the deceptive and misleading practices of OMICS, the NIH accused OMICS of 'trademark infringement', and issued a cease-and-desist letter to the academic publisher, ordering it to 'cease and desist from employing our name or the name of any of our agencies, institutes, or employees on your website for other than true factual statements' (Kaiser 2013: 6). The NIH subsequently referred the matter to the FTC, the independent federal agency empowered to prevent persons, partnerships, and corporations from using unfair, deceptive, and misleading practices, acts, or methods of competition in the marketplace, for enforcement. In 2016, the FTC charged OMICS Group, Inc., with violating American federal law. The FTC complaint charged OMICS Group with 'deceiving academics and researchers about the nature of its publications and hiding publication fees ranging from hundreds to thousands of dollars' (FTC 2016: para. 1). The FTC also alleged that by making false claims and failing to disclose steep publishing fees to its journal article authors, OMICS Group

violated Title 15 of the United States Code, section 45, which gives the FTC the power to prevent such acts ('FTC v. OMICS' 2016). The FTC's 'Complaint for Permanent Injunction and Other Equitable Relief' ('FTC v. OMICS' 2016) was filed against OMICS, two affiliated companies, iMedPub LLC, Conference Series LLC, and Srinubabu Gedela, an Indian National, who is the president and director of OMICS, iMedPub, and Conference Series. Gedela is also the owner of the fictitious business named OMICS Publishing Group. The complaint was filed at the United States District Court for the District of Nevada. It specifically accused OMICS Group and Gedela of violating academic publication ethics and federal law through falsely stating that various academic experts served as editors, members of editorial boards, or were associated with the Defendants' journals, and that the researchers' articles are:

[...] subject to industry-standard peer review before publishing. Defendants also represent that their journals have high 'impact factors' (meaning they are cited frequently, using a metric calculated by Thomson Reuters) and are listed in PubMed Central, a well-known and prestigious database maintained by the United States National Library of Medicine (NLM) at the National Institutes of Health (NIH). ('FTC v. OMICS' 2016: 4)

The FTC's complaint also alleged that:

[...] the defendants regularly deceive consumers while promoting academic conferences they organize. The defendants allegedly include the names of prominent researchers as participants and presenters at the conferences, which charge registration fees that can cost more than \$1,000, when in fact many of those researchers often did not agree to participate in the events. (FTC 2016: para. 7)

In response, OMICS Group, iMedPub LLC, Conference Series LLC, and Srinubabu Gedela, maintained that their publication and conference organization practices were legal and that the lawsuit was being driven by oligopolistic multinational corporate interests who have a stake in the old, subscription-access scholarly journal publication paradigm. They said the big corporate publishers wanted to keep them out of the open access scholarly publishing market. Indeed, Gedela resisted any attempt to classify his journals as 'predatory'. When Jeffrey Beall classified OMICS Group as a predatory publisher and listed its 700-plus journals as such in his Beall's List of Predatory Publishers, Gedela

threatened to file a \$1 billion defamation lawsuit against Beall (New 2013). That threat, and alleged pressure from Beall's employer, the University of Colorado at Denver, caused the librarian to suspend his scholarly journal classification list for fear of legal liability for the list. The institution later denied that it had put pressure on Beall to shut down his List of Predatory Publishers in the face of threats of legal action by Gedela and OMICS Group, Inc. (Deprez and Chen 2017). The FTC and researchers who complained against OMICS Group had this threat in mind. These researchers had collaborated with the FTC in adducing evidence to support the FTC's complaint against OMICS. Indeed, the irony of the FTC's legal action against OMICS Group is that it turned the tables. The party that had threatened to resort to the very expensive remedies of the law against Beall soon found itself the defendant in a very expensive landmark case that was a metaphorical shot across the bows of the global predatory publishing industry.

The issue before the United States District Court for the District of Nevada, Las Vegas, was whether OMICS Group, iMedPub, Conference Series, and Gedela had engaged in unfair, false, deceptive, and misleading practices, acts, or methods of competition in the marketplace that violated the Federal Trade Commission Act. On 29 September 2017, the court granted the FTC's request for a preliminary injunction, requiring the Defendants to preserve records, provide financial accounting to the FTC, and refrain from engaging in deceptive practices. The parties were asked to submit their respective motions for summary judgment on the FTC's unfair and deceptive practices claim. The court subsequently issued a judgment and final order that:

[...] prohibits the defendants from making misrepresentations regarding their academic journals and conferences, including that specific persons are editors of their journals or have agreed to participate in their conferences, that their journals engage in peer review, that their journals are included in any academic journal indexing service, or the extent to which their journals are cited. It also requires that the defendants clearly and conspicuously disclose all costs associated with submitting or publishing articles in their journals. The order also requires the defendants to obtain express written consent from any person the defendants represent to be associated with their academic journals or scientific conferences. ('Fed. Trade Comm'n v. Omics Grp. Inc.' 2019: 8)

The court then levied a \$50.1 million judgment against OMICS Group, its affiliated companies, iMedPub LLC, Conference Series LLC, and Gedela. This amount was all of OMICS' earnings over the six-year period when the federal government commenced litigation against the company. The court ordered OMICS to refrain from engaging in misleading and deceptive practices, and from making similar misrepresentations in the future ('FTC vs. OMICS Group' 2019).

OMICS Inc v. FTC: Review by the United States Court of Appeals for the 9th Circuit

OMICS Group, iMedPub, Conference Series, and Gedela appealed the decision and fine to the United States Court of Appeals for the 9th Circuit in California. They claimed that the federal district court in Nevada erred in imposing the \$50.1 million fine based on the government's petition for a permanent injunction and other equitable relief rather than a full jury trial. They added that the \$50.1 million fine was not equitable. The first issue before the appellate court was whether OMICS Group, iMedPub, Conference Series, and Gedela violated Section 5(a) of the FTC Act, 15 U.S.C. § 45(a). The second issue was whether the District Court erred in holding Gedela personally liable for the unfair and deceptive practices of OMICS Group and its affiliated corporations. The final issue was whether the \$50.1 million monetary relief (fine) was equitable. The court of appeals answered in the affirmative on all three issues. With respect to violation of the Federal Trade Commission Act, the court ruled that the record contained ample evidence of Defendants' deception regarding its journals' peer review practices, publishing fees, impact factors, and editorial board membership. OMICS also made false representations regarding the attendees and organizers of its academic conferences when marketing these events: 'OMICS's misrepresentations were material and their net impression was likely to, and did in fact, deceive ordinary consumers' ('FTC v. OMICS Group' 2020: 2). The court of appeals affirmed the district court's grant of summary judgment to the FTC, and against OMICS Group, concluding that the defendants violated Section 5(a) of the FTC Act. With respect to Gedela's personal liability, the appeals court ruled that:

[...] the district court properly concluded that Gedela is personally liable for OMICS's violations because he had authority over OMICS and either had knowledge of the companies' misrepresentations or was recklessly indifferent to their truth or falsity [...] as relates to Defendant's conference activities [...] Although the individual conferences were discrete events, they were part of a single scheme of deceptive business practices carried out by Defendants [...] we hold that the FTC reasonably approximated OMICS's unjust gains with respect to the entirety of its deceptive business practices. ('FTC v. OMICS Group' 2020: 4).

The court ruled that the FTC could deposit the \$50.1 million in a fund to be used for equitable relief, including consumer (scholar/author) redress (reimbursement) as well as expenses related to the administration of the redress fund. It ordered that any money not used for equitable relief (reimbursement of authors and conference attendees) was to be forfeited to the US Treasury ('FTC v. OMICS Group' 2020). The question is whether OMICS will comply with the court judgment given that it found the FTC lawsuit and court decision unjust. Furthermore, OMICS is headquartered in India, where it is viewed favorably by the government to the point where it is given tax breaks and favorable treatment (Deprez and Chen 2017). It is unclear whether the FTC will be able to convince Indian courts to accept the American court decision and allow the United States government to enforce it in India. That is a diplomatic and political matter for India and the United States to resolve. One major critique of this court decision, beside the fact that it was not the outcome of a trial by jury, is that OMICS Group, and especially its affiliate, Conferences Services, were sponsored by global medical research and pharmaceutical conglomerates which saw these OMICS conferences and some OMICS journals as appropriate outlets for their research, in a highly competitive research and publication environment (Deprez and Chen 2017).

Lessons Learned from the OMICS Group Case

The 'FTC v. OMICS' case was the first case against a so-called 'predatory publisher' in the United States. The landmark case moved scholarly journal publishing from the realm of professional ethics — self-regulation of ethically responsible research, knowledge production, presentation in professional conferences, and ethical publication — to

the realm of law, which commands specific legal behavior on pain of criminal penalties or civil sanctions or both. During the case, for the first time, the FTC injected the pejorative epithets, 'predatory conferences', 'predatory publication', and 'predatory journal' into mainstream American and international legal vocabulary. When the FTC first charged OMICS Group with violating federal law in 2016, it simply stated that it had charged 'Academic Journal Publisher OMICS Group' with deceiving researchers and failing to disclose steep publication fees. By the time the case was finally decided in 2019 by the United States Court of Appeals for the 9th Circuit, the FTC reported that the court had ruled against 'predatory Academic publisher OMICS'. The government and the courts had essentially adopted the epithet that had previously been coined by Jeffrey Beall to describe the emerging mercantilist 'open access' academic publishers, whose modus operandi was at variance with the proper conduct of research, organization of professional conferences, and research publication. Those terms are now legal appellations, not just pejorative epithets. Media reports of the OMICS case used the epithet to characterize the company. However, it is worth noting that in its reports of the case, *The New York Times* used the term 'predatory' in quotes (Kolata 2019).

Furthermore, the government used evidence of wrongdoing on the part of OMICS Group to prosecute the predatory publisher and its affiliates for violating federal law. The most devastating pieces of evidence used against OMICS were the publication, by OMICS Group journals, of utterly meaningless 'hoax' research papers that scholars had deliberately written and submitted to OMICS journals to prove that the company's journals did not follow the elementary principles of scholarly editing, peer review, and publication. They claimed that the only thing OMICS was interested in was the article publication fees charged for online publication of these bogus articles. These scholars essentially engaged in entrapment to provide the government evidence to prosecute OMICS. They knowingly played along with the deceptive, misleading, and unethical activities of OMICS in order to gather evidence to bolster the FTC's case against the predatory publisher ('FTC vs. OMICS Group' 2019).

Predatory publishing is a global issue. The United States government is willing to protect its institutional scientific research 'trademarks' by taking legal action against international predatory publishers who have

a presence in the United States. For research and publication ethics to be globalized, codes of ethics must become globally institutionalized paradigms that are characterized by universal values that transcend narrow national research and publication traditions and frameworks.

In scholarly publishing, the rule utilitarian approach focuses on the impact of rules or codes of ethics on publication practices. The OMICS case demonstrates that if predatory publishers fail to abide by the recommendations of the professional codes of ethics of the industry, they often cross the line into the realm of illegal activity, which triggers a government response — enforcement of commandments, rules, and regulations designed to stamp out illegal, deceptive, and misleading behavior in the marketplace, for the greater good.

Conclusion

The paradigm of valid scientific and academic research is grounded in ethically conducted research and publication. Globalization and the interconnection of nations, peoples, educational systems, and different cultural geographies of research and academic publication have resulted in a worldwide ethical ferment with incalculable consequences for the ethical research and academic publication paradigm. This ferment was exacerbated by open access, which was clearly an attempt to shield academic research, knowledge creation, and scholarly publication from the vicissitudes and shifting sands of research funding, changes in funding priorities, and funding cuts by governmental and non-governmental institutional funders. As formulated by its initiators, open access was seen as the answer to the oligopolistic, pay-for-access, subscription and site-licensing fee system of knowledge curation and archiving dominated by a handful of university presses, foundations, and especially a few global corporations (Johnson and others 2018). One of the unintended consequences of open access was the emergence of for-profit predatory publishers who took advantage of the scholarly pressure to publish and trampled the conventions of ethical scholarly publication under foot in a headlong rush to make money. Their excesses resulted in governmental legal action and court rulings like the one in *FTC v. OMICS Group Inc.* that created an emerging regime of regulated self-regulation. This chapter has explored the dichotomy

between professional codes of ethics that make recommendations, and enforceable federal law — rules and regulations that amount to commandments — within the framework of the moral philosophical perspective of rule utilitarianism. This perspective holds that all actions must be judged in terms of their conformity to rules that, if obeyed, would lead to the ‘greatest good’ for professions and for society as a whole (Berkeley 1712: 8).

The OMICS case is unprecedented because it injects the government into the dynamic field of scholarly publishing, treats it as a ‘product’ and researchers as ‘consumers’ who must be protected from the deceptive and misleading marketing practices of predatory publishers and conference organizers. The case also involves the US federal government in aspects of the research, conference, and publication paradigm, and makes it an arbiter of peer-review systems, journal indexing, and journal metrics, impact factors, and citation metrics. These are issues that ought to be left to individual scholars because they may raise questions about freedom of academic expression. Predatory publishing demonstrates the shortcomings of the research and open access publication paradigm that is dominated by billion-dollar oligopolistic scholarly publishers. For research and publication ethics to be globalized, codes of ethics have to become globally institutionalized paradigms that are characterized by universal values that transcend narrow national research and publication traditions, cultures, and frameworks.

Epilogue

The Challenges of Artificial Intelligence to Ethical Scholarly Publishing

Since digital information and communication technologies have transformed science communication, scientific research, knowledge creation, scholarly and academic publication, curation, and retrieval into a dynamic, ever-changing enterprise, the gatekeepers of the industry pay attention to emerging technologies that threaten to disrupt the tried-and-true paradigm. Scholarly and academic publishing now finds itself at another technological, moral and philosophical crossroads. In November 2022, a seismic event with major disruptive potential for

scholarly and academic publishing was announced. A Silicon Valley-based information technology company, OpenAI, announced that it had built and released ChatGPT (short for Chat Generative Pre-trained Transformer), the prototype of a revolutionary artificial intelligence (AI) tool for general public use. ChatGPT is a chatbot, a 'computer program [set of algorithms] that uses artificial intelligence (AI) and natural language processing (NLP) to understand customer questions and automate responses to them, simulating human conversation' ('What is a chatbot?' 2023: para. 1). According to IBM Corporation, a pioneer of computer and database technologies, AI is defined in terms of what it is designed to accomplish: 'Artificial intelligence leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind' ('What is artificial intelligence (AI)?' 2023: para. 1). This computer mimicry of human intelligence essentially tries to embed human attributes and characteristics into machines. The limits and consequences of this mimicry are contested by segments of the technological elite, academics, and politicians (Van Der Laan 2016), and, as a result, the launching of ChatGPT received a lot of media coverage around the world.

News — and media hype — about the dangers and capabilities of ChatGPT spread like wildfire. Within days, millions of people had logged on to the OpenAI website. A segment of users around the world hailed ChatGPT and its even more powerful successor, GPT-4, as a boon to society, while another segment decried it as a bane to humanity at worst. Sensing that ChatGPT posed an existential threat to its business models, Google promptly announced that it was releasing its own version of AI, a chatbot called Bard ('Meet Bard' 2023). On 29 March 2023, the nonprofit Future of Life Institute organized an open letter entitled, 'Pause Giant AI Experiments: An Open Letter' signed by more than 30,000 high tech, artificial intelligence, computer industry, and academic elites from around the world, including Elon Musk, CEO of SpaceX, Tesla, and Twitter (Anderson 2023; 'Pause Giant AI' 2023). Musk happens to be one of the co-founders of OpenAI. The open letter called for an industry-wide or government moratorium on research on 'AI systems more powerful than GPT-4' ('Pause Giant AI' 2023, para. 1). The letter presented the reasons for the moratorium in apocalyptic terms:

AI systems with human-competitive intelligence can pose profound risks to society and humanity [...] AI labs locked in an out-of-control race to develop and deploy ever more powerful digital minds that no one – not even their creators – can understand, predict, or reliably control [...] *Should* we let machines flood our information channels with propaganda and untruth? *Should* we automate away all the jobs, including the fulfilling ones? *Should* we develop nonhuman minds that might eventually outnumber, outsmart, obsolete and replace us? *Should* we risk loss of control of our civilization? ('Pause Giant AI' 2023: paras. 1–2)

The call for an industry or government moratorium on the 'dangerous race to ever-larger unpredictable black-box models with emergent capabilities' ('Pause Giant AI' 2023: para. 4) was based on the belief that AI, like all new or emerging technologies, 'shapes and defines reality itself [...that] there is now no reality outside of [AI] technology', to use the expression of Van der Laan (2016: 20). The online letter was a call for responsible governance of and moralization about AI, a technology that has the potential to be used for good or ill, for ethical, unethical, or amoral purposes. It was a call for regulation of AI (Anderson 2023). This was the second open letter organized by the Future of Life Institute. The first open letter it coordinated had been published in 2015. It was signed by renowned British physicist, Stephen Hawking, and Elon Musk (Van der Laan).

In response to the call for an AI pause in the wake of the launching of ChatGPT, a group of ethicists challenged the signatories of the open letter for ignoring the ills of AI in contemporary society: 'hypothetical risks are the focus of a dangerous ideology called longtermism that ignores the actual harms resulting from the deployment of AI systems today' (Gebru and others 2023: para. 3). AI research and deployment is clearly not a futuristic problem. Just as the emergence of digital technologies, databases, the internet, social media platforms, and open access posed challenges to, and profoundly altered, the traditional paradigm of ethically conducted scientific research and publication, artificial intelligence has the potential to further disrupt and profoundly alter these realms of scholarly activity. Developments in AI raise multiple legal and ethical issues for scientific research, scholarly, and academic publishing. Will AI replace human peer reviewers and

automate the scholarly journal publishing paradigm? Will AI be a boon for paper mills? Will AI enable the infringement of intellectual property? How will AI systems be governed in the field of scholarly and academic publishing? Will traditional and predatory publishers use Open AI's ChatGPT or Google's Bard to write encyclopedic 'meta research' compendiums on given subjects? Chatbots like ChatGPT, GPT4, and Bard are notorious for their uneven accuracy. In order to increase the ability of chatbots to generate accurate information, they have to be trained on real databases. How will these activities be regulated? AI also has the potential to give predatory publishing and paper mills a new lease on life. For example, in the 'FTC v. OMICS' case, researchers generated ethically questionable 'anti-research' or hoax articles and used these bogus articles as bait to entrap predatory publishers. Publication of these hoax articles became prima facie evidence used against OMICS in federal court. Will researchers partner with the government and use AI to generate such ethically questionable hoax articles for purposes of selectively prosecuting predatory publishers?

AI has the potential for positive use in scholarly and academic publishing. Thus, in their open letter calling for a moratorium on certain types of high-risk AI, the signatories of the tech and academic intelligentsia called for the development of 'provenance and watermarking systems to help distinguish real from synthetic and to track model leaks' ('Pause Giant AI' 2023: para. 7). AI watermarking systems will be highly relevant in scholarly and academic research and publishing because they will address issues regarding, intellectual property, disinformation, paper mills, hoaxes and other types of articles generated by human and artificial intelligence systems. In order to keep abreast of rapidly evolving AI technology, the codes of ethics of the scholarly and academic publishing industry, and of publication databases, need to be revised to include provisions on the uses of AI. Ultimately, what the 'AI pause letter' signatories were calling for is a context-specific regulated self-regulation of AI. Such a system will stand the scholarly publishing industry in good stead.

Key Takeaways

- Open access publishing emerged in the United States in early 1990s because of governmental and institutional funding priorities and the aim of allowing for a more equitable flow of knowledge in an increasingly connected world.
- The primary component of the most prevalent new open access model was article processing charges, where the costs of publishing and archiving academic articles would move from a pay-to-read model to a pay-to-publish model, allowing all published articles to be available to all readers, free of cost.
- Initially, the traditional publishers opposed open access, arguing the pay-to-publish model would undermine the credibility of scientific knowledge production and the traditional peer review system. Now, nearly all large commercial publishers have open access and open book publishing divisions that are funded by article processing charges, which have grown increasingly expensive.
- In response to the continually increasing numbers of open access journals, databases and indexes aimed at developing and legitimizing credible open access journals and publications were created.
- By placing the burden of paying to publish their work on individual scholars and researchers, a divide was created between scholars in affluent countries and institutions and those with less monetary or institutional resources to cover the increasingly expensive article processing charges.
- The term 'predatory journal' or 'predatory publisher' has become common nomenclature to categorize publications that seek to capitalize on the open access trend of pay-to-publish but do not follow the tried-and-true professional publication standards.
- Predatory journals routinely use deceptive tactics to lure authors into submitting their articles. Some commonly used deceptions are creating journal websites and names that mimic well-known journals, listing editorial board members

that actually have no association with the publication, and hiding fee expectations until after a manuscript is submitted.

- The *FTC v. OMICS* case was the first case against a so-called ‘predatory publisher’ in the United States, effectively moving scholarly journal publishing from the realm of professional ethics to the realm of law.
- The emergence of AI technologies will impact scholarly publishing in numerous ways, both positive and negative.

Discussion Questions

1. Examine the origins of the open access movement. What are the key developments that led to disruption of the traditional subscription-access academic publishing model?
2. Someone has to pay for publishing and archiving the global knowledge base, and both the subscription model and the article processing charge model have created barriers. What are some alternatives?
3. What are the key factors that allowed predatory journals to enter into the open access environment?
4. What are some ways that the different worldviews and research practice norms may have contributed to the rise of predatory publishing?
5. Why does the predatory journal practice of not conducting peer review threaten the credibility of the body of scientific knowledge?
6. How has the sponsorship of predatory publishing companies (like OMICS group) by Big Pharma contributed to the ethical dilemmas related to academic publishing?
7. What are some possible ramifications for institutions and individuals when a journal they have submitted their work to is charged with violating both ethical codes and federal law?
8. The Indian government still supports OMICS as a legitimate business, gives them tax breaks, and has even subsidized land for OMICS to build a new headquarters. This is a clear

indication that, according to the government of India, the OMICS Group has not violated any norms related to academic publishing. How might this be a challenge when considering a code of ethics that could be applicable to the global body of academic knowledge production?

9. What are some of the potential issues that could arise from the thousands of medical and pharmaceutical research presentations and articles that were published or presented through OMICS publications or conferences and are now part of the global body of scientific research, freely available to anyone with internet access?
10. Before OMICS was formally charged with misleading authors about their services and fees, a researcher who submitted their work could claim ignorance about the credibility of the publisher. Now that the case has been decided, and the results widely covered in mainstream news media and academic-specific outlets, could authors still realistically claim ignorance if an OMICS-related publication is found on their CV? Should university administrators take action against their faculty who submit to OMICS journals? What are potential ramifications for this in terms of academic freedom?
11. Given the fact that one of the key pieces of evidence against OMICS was obtained through questionable ethical practices (entrapment), should there be a chance for OMICS to appeal or question the second ruling by the appeals court? Explain the reasons for your answer.
12. Is AI a boon (blessing) or a bane (curse) to scholarly publishing?

Activities

Activity One: Collecting the Fine

Imagine a scenario where the FTC was able to collect the \$50.1 million fine from OMICS. As per the court ruling, the bulk of the fine is supposed to go to authors and conference presenters who were deceived by OMICS. However, it is likely that some individuals and organizations (such as personnel from the Big Pharma organizations that sponsored OMICS conferences) knew that OMICS was deceiving authors and profiting from that deception.

As a group or individually, answer/discuss the following questions:

1. Should the author reimbursement be divided equally among all authors around the world who submitted to OMICS journals and conferences?
2. Or should there be an attempt at establishing the truth (or otherwise) of claims of ignorance related to OMICS's predatory practices?

Activity Two: Ethics in a Global Society

The last sentence of the chapter states:

For research and publication ethics to be globalized, codes of ethics have to become globally institutionalized paradigms that are characterized by pluralistic and universal values that transcend narrow national research and publication traditions and frameworks.

The Committee on Publication Ethics (COPE), the Directory of Open Access Journals (DOAJ), the Open Access Scholarly Publishing Association (OASPA), and the World Association of Medical Editors (WAME) are scholarly organizations that have collaborated to identify principles of transparency and best practice for scholarly publications' ('Principles of Transparency' 2019: 1). Using the principles of transparency published by these organizations, consider whether:

1. OMICS violated their principles, and
2. Do these standards allow for epistemic and cultural diversity in the global body of knowledge production?

Finally, as evidenced in Chapter 6 of this book, there is no shortage of information and training available related to scholarly publishing ethics, yet researcher still either fall prey or deliberately submit their work to journals that do not adhere to ethical publication practices.

What are some ways your institution/college/department attempt to instill or enforce ethical research practices in faculty and graduate students?

References

- 'About DOAJ'. [n.d.]. *DOAJ*, <https://doaj.org/about/>
- Alberts, Bruce., W. Kirschner, Marc., Tilghman, Shirley and Varmus, Harold. 2014. 'Rescuing US Biomedical Research from Its Systemic Flaws', *Proceedings of the National Academy of Sciences of the United States of America*, 111.16: 5773–77, <https://doi.org/10.1073/PNAS.1404402111>
- Anderson, Margo. 2023. "'AI Pause" Open Letter Stokes Fear and Controversy: IEEE signatories say they worry about ultrasmart, amoral systems without guidance', *IEEE Spectrum*, <https://spectrum.ieee.org/ai-pause-letter-stokes-fear>
- Beall, Jeffrey. 2012. 'Predatory Publishers and Opportunities for Scholarly Societies', in *American Educational Research Association* (Washington, D. C.), 1–5, <http://eprints.rclis.org/18044/>
- Berkeley, George. 1712. *Passive Obedience: Or, the Christian Doctrine of Not Resisting the Supreme Power, Proved and Vindicated*, 2nd edn (London: Oxford Text Archive)
- Björk, Bo Christer, and David Solomon. 2012. 'Open Access versus Subscription Journals: A Comparison of Scientific Impact', *BMC Medicine*, 10.73: 1–10, <https://bmcmmedicine.biomedcentral.com/articles/10.1186/1741-7015-10-73>
- Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*, translated by Richard Nice (Cambridge: Cambridge University Press). <https://doi.org/10.1017/cbo9780511812507>
- Brown, Patrick O., Eisen, Michael B. and Varmus Harold E. 2003. 'Why PLoS Became a Publisher', *PLOS Biology*, 1.1: 1–2, <https://doi.org/10.1371/JOURNAL.PBIO.0000036>
- Clinton, William and Gore, Albert. 1997. 'A Framework for Global Electronic Commerce' (Washington, D.C.: United States Printing Office), <https://clintonwhitehouse4.archives.gov/WH/New/Commerce/>
- Cordón-García, José-Antonio., Alonso-Arévalo, Julio., Gómez-Díaz, Raquel and Linder, Daniel. 2013. *Social Reading: Platforms, Applications, Clouds and Tags*, 1st edn (Witney, Oxford, UK: Chandos Publishing)
- Corfield, Penelope J. 2007. *Time and the Shape of History* (New Haven, CT: Yale University Press). <https://doi.org/10.12987/YALE/9780300115581.001.0001>
- Crimmins, James E. 2021. 'Jeremy Bentham', *Stanford Encyclopedia of Philosophy*, <https://plato.stanford.edu/entries/bentham/>
- De Beer, Arnold S., and Merrill John C. 2003. *Global Journalism: Topical Issues and Media Systems*, 4th edn (Boston, MA: Allyn & Bacon)

- Deprez, Esmé E., and Chen, Caroline. 2017. 'Medical Journals Have a Fake News Problem', *Bloomberg*, <https://www.bloomberg.com/news/features/2017-08-29/medical-journals-have-a-fake-news-problem>
- Eko, Lyombe. 2001. 'Many Spiders, One Worldwide Web: Towards a Typology of Internet Regulation', *Communication Law and Policy*, 6.3: 445–84, https://doi.org/10.1207/S15326926CLP0603_02
- Eko, Lyombe, and Koerber, Amy. 2020. 'Profiting from the Paradigm Shift in Scholarly Journal Publishing: The Case of Predatory Publishers', *The Southwest Respiratory and Critical Care Chronicles*, 8.35: 61–64, <https://doi.org/10.12746/SWRCCC.V8I35.715>
- Eko, Lyombe, A. Kumar, and Q. Yao. 2012. 'To Google or Not to Google: The Google Digital Books Initiative and the Exceptionalist Intellectual Property Law Regimes of the United States and France', *Journal of Internet Law*, 15: 12–21
- Else, Holly. 2020. *Nature Journals Reveal Terms of Landmark Open-Access Option*, *Nature*, <https://doi.org/10.1038/D41586-020-03324-Y>
- 'Fed. Trade Comm'n v. Omics Grp. Inc.' 2019. (*Brief of the Federal Trade Commission*). <https://www.ftc.gov/legal-library/browse/cases-proceedings/152-3113-omics-group-inc>
- Federal Trade Commission (FTC). 2016. *FTC Charges Academic Journal Publisher OMICS Group Deceived Researchers*, <https://www.ftc.gov/news-events/news/press-releases/2016/08/ftc-charges-academic-journal-publisher-omics-group-deceived-researchers>
- Figdor, Carrie. 2010. 'Is Objective News Possible?', in Christopher Meyers (ed.), *Journalism Ethics: A Philosophical Approach* (Oxford, England: Oxford University Press): 153–64, <https://doi.org/10.1093/ACPROF:OSO/9780195370805.003.0010>
- 'FTC v. OMICS'. 2016, <https://www.ftc.gov/system/files/documents/cases/160826omicscmpt.pdf>
- 'FTC v. OMICS Group'. 2020. (*United States Court of Appeals for the Ninth Circuit*). https://www.ftc.gov/system/files/ftc_gov/pdf/CA9-Omics-Opinion.pdf
- 'FTC vs. OMICS Group'. 2019, https://www.ftc.gov/system/files/documents/cases/de_121_-_omics_order_granting_summary_judgment.pdf
- Gebru, Timnit., Bender, Emily., Millan-Major, Angelina and Mitchell, Margaret. 2023. 'Statement from the listed authors of Stochastic Parrots on the "AI pause" letter', *Distributed AI Research Institute (DAIR)*. <https://www.dair-institute.org/blog/letter-statement-March2023>
- Greco, Albert N. 2016. 'The Impact of Disruptive and Sustaining Digital Technologies on Scholarly Journals', *Journal of Scholarly Publishing*, 48.1: 17–39, <https://doi.org/10.3138/jsp.48.1.17>

- Grudniewicz, Agnes., Moher, David., Cobey, Kelly D., Bryson, Gregory L., Cukier, Samantha and others. 2019. 'Predatory Journals: No Definition, No Defence', *Nature*, 576.7786: 210–12, <https://doi.org/10.1038/d41586-019-03759-y>
- 'Guild'. 2023. ed. by The Editors of Encyclopedia Britannica. *Encyclopedia Britannica*, <https://www.britannica.com/topic/guild-trade-association>
- Johnson, Rob., Watkinson, Anthony and Mabe, Michael. 2018. 'The STM Report: An Overview of Scientific and Scholarly Publishing', https://www.stm-assoc.org/2018_10_04_STM_Report_2018.pdf
- Kaiser, Jocelyn. 2013. 'U.S. Government Accuses Open Access Publisher of Trademark Infringement', *Science*, <https://www.science.org/content/article/us-government-accuses-open-access-publisher-trademark-infringement>
- Kember, Sarah, and Brand, Amy. 2023. 'The Corporate Capture of Open Access Publishing', <https://www.chronicle.com/article/the-corporate-capture-of-open-access-publishing>
- Kolata, Gina. 2019. 'The Price for "Predatory" Publishing? \$50 Million', *The New York Times*, <https://www.nytimes.com/2019/04/03/science/predatory-journals-ftc-omics.html>
- Kuhn, Thomas S. 1970. *The Structure of Scientific Revolutions*, 2nd edn (Chicago: The University of Chicago Press)
- Legrand, Pierre. 2003. 'The Same and The Different', in *Comparative Legal Studies: Traditions and Transitions*, ed. by Pierre Legrand and Roderick Munday, 240–311, <https://doi.org/10.1017/CBO9780511522260>
- 'Meet Bard'. 2023. Google, Inc. https://bard.google.com/?utm_source=sem&utm_medium=paid-media&utm_campaign=q3enUS_sem6
- Nathanson, Stephen. [n.d.] 'Act and Rule Utilitarianism', *Internet Encyclopedia of Philosophy*, <https://iep.utm.edu/util-a-r/>
- New, Jake. 2013. 'Publisher Threatens to Sue Blogger for \$1-Billion', *The Chronicle of Higher Education*, <https://www.chronicle.com/article/publisher-threatens-to-sue-blogger-for-1-billion/>
- 'Pause Giant AI Experiments: An Open Letter'. 2023. *Future of life Institute*, <https://futureoflife.org/open-letter/pause-giant-ai-experiments/>
- 'Principles of Transparency and Best Practice in Scholarly Publishing'. 2019. *COPE, DOAJ, OASPA, and WAME*, <https://doi.org/10.24318/cope.2019.1.12>
- Schroeder, Eric P., Underwood Jr, Brian M. and Bedo, Nicholas A. 2021. 'When Copyright First Met the Digital World: A Retrospective and Discussion of New York Times v. Tasini, 533 U.S. 483 (2001)'. *American Bar Association*, https://www.americanbar.org/groups/communications_law/publications/communications_lawyer/2021-summer/when-copyright-first-met-digital-world-retrospective-and-discussion-new-york-times-v-tasini-533-us-483-2001/

- Tennant, Jonathan P., Waldner, François., Jacques, Damien C., Masuzzo, Paola., Collister, Lauren B. and others. 2016. 'The Academic, Economic and Societal Impacts of Open Access: An Evidence-Based Review', *F1000Research*, 5.632: 1–57, <https://doi.org/10.12688/F1000RESEARCH.8460.3>
- Van der Laan, J.M. 2016. *Narratives of Technology*. (New York: Palgrave Macmillan), <https://doi.org/10.1057/978-1-137-43706-8>
- Van Noorden, Richard. 2020. 'Hundreds of Scientists Have Peer-Reviewed for Predatory Journals', *Nature*: 1–4, <https://doi.org/10.1038/d41586-020-00709-x>
- 'What is artificial intelligence?'. 2023. IBM, <https://www.ibm.com/topics/artificial-intelligence>
- 'What is a chatbot?'. 2023. IBM <https://www.ibm.com/topics/chatbots#:~:text=A%20chatbot%20is%20a%20computer,to%20them%2C%20simulating%20human%20conversation.>