

# ACADEMIC AUTHOR COPYRIGHT LOSS— IMPACTS AND REMEDIES

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*One of the cornerstones of scientific advancement is academic, peer-review publishing. Published articles are critical to advancing scientific research and disseminating verified results to other scientists and the public. Despite its importance, the copyright issues surrounding publishing are poorly understood by many of its scientific authors. In an effort to demystify and empower scientific authors, this Note discusses copyright ownership during the peer-review publishing process, loss of author copyright through publishing agreements, and remedies authors may employ to protect and distribute their works.*

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### ***ELSEVIER V. RESEARCHGATE: AN INTRODUCTION TO THE SCIENCE OF SHARING***

If we were doing Jay Leno’s JayWalking sketch and asked random pedestrians whether they know of ResearchGate (or even heard of it), odds are good that we would only see blank faces. However, walk into a university building or a hospital and it’s likely that many surveyed not only know of ResearchGate, but are themselves users. Created by a computer specialist and two physicians/researchers in 2008, ResearchGate is a social network where scientists can showcase, keep up on, and discuss research with other scientists.<sup>1</sup> The for-profit company started with 10,000 users and in the ten years since has grown to 15 million users; further, large investors, like Bill Gates and Goldman Sachs, helped ResearchGate recently complete four rounds of financing.<sup>2</sup>

So ResearchGate means something to a relatively small group of people—namely, scientists. While the 15 million ResearchGate users pale in size when compared to the social network Facebook (with 2.27 billion users),<sup>3</sup> these users are doing more than sharing what they had for breakfast. Almost 90% of ResearchGate’s users have postgraduate qualifications in specialties that range from medicine and biology to computer science.<sup>4</sup> ResearchGate can even boast about 68 Nobel prize laureates among its users.<sup>5</sup> Similar to Facebook, these scientists use ResearchGate to create a network profile where they can upload and share their own research, including peer-reviewed articles they authored and other forms of research,

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1. *Company Fact Sheet*, RESEARCHGATE, <https://www.researchgate.net/press> (last visited Jan. 19, 2019).

2. Other investors include Benchmark Capital, Founders Fund, Tenaya Capital, Welcome Trust and Four Rivers Group. *Id.* ResearchGate also sells advertising spots to scientific product and service companies as a part of their mission to “connect the world of science.” *Id.*; Jyllian Kemsley & Andrea Widener, *Publishers Taking Legal Action Against ResearchGate to Limit Unlicensed Paper Sharing on Networking Site*, CHEM. & ENG’G NEWS (Oct. 9, 2017), <https://cen.acs.org/articles/95/i40/Publishers-take-legal-action-against.html>.

3. *Press Release*, FACEBOOK, INC., Facebook Reports Third Quarter 2018 Results (Oct. 30, 2018), <https://investor.fb.com/investor-news/press-release-details/2018/Facebook-Reports-Third-Quarter-2018-Results/default.aspx>.

4. *Company Fact Sheet*, *supra* note 1.

5. *Id.* Member disciplines include engineering, chemistry, and other sciences, in addition to medical, biological, and computer science disciplines. *Id.*

including raw or negative data or code.<sup>6</sup> Further, these researchers can post and answer research questions on topic boards, and engage directly with other ResearchGate users to collaborate on new research problems.<sup>7</sup>

Knowing generally what ResearchGate is, who its users are, and how the platform is used still fails to answer the question of why we should care about ResearchGate. And perhaps we should not care about ResearchGate specifically, but we should care about scientists' ability to collaborate, advance, and disseminate their research easily. We should care about promoting scientific advances because these advances often translate to new technology and markets. Whole industries, such as the genetic testing market and medical treatments (gene therapy), are the product of scientific breakthroughs like Watson and Crick's 1953 Nature article describing the molecular structure of DNA.<sup>8</sup> We should care because advances in science trickle down to affect the American economy directly.<sup>9</sup> They touch everyone. Promotion of science and technology was so important to the founders of this country that they are specifically mentioned in the Constitution.<sup>10</sup> The importance of science and technology to this country continues today, with Congress stating in 2017 that "[s]cientific and technological advancement have been the largest drivers of economic growth in the last 50 years."<sup>11</sup> Even if the average person knows little to nothing about ResearchGate, people do recognize and believe that innovation in science and technology is more important than ever to the American economy.<sup>12</sup>

If we take as true that ResearchGate helps enable sharing and collaboration between scientists and that this is a good thing for everyone, then we should be concerned (at least a little) that it is being sued by two peer-review journal publishers

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6. *See id.*

7. *Id.* A ResearchGate press release highlights an example of peer-to-peer collaboration, facilitated by the network, in the area of cybersecurity research. Independent cybersecurity consultant Tim Bass was contacted by another researcher, Richard Zuech, after Zuech discovered on ResearchGate that Bass had read his posted article. Zuech reached out to Bass for feedback on his article and the two later collaborated on new cybersecurity research together. *Id.*

8. *Science and Technology on Fast Forward*, UNIV. OF CAL. MUSEUM OF PALEONTOLOGY, [https://undsci.berkeley.edu/article/0\\_0\\_0/whathassciencedone\\_03](https://undsci.berkeley.edu/article/0_0_0/whathassciencedone_03) (last visited Jan. 19, 2019); J.D. Watson & F. H. C. Crick, *Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid*, 171 NATURE 737, 737 (1953). This Nature paper, as of January 21, 2019, has been cited 5,511 times by other articles. *Article Metrics*, NATURE, <https://www.nature.com/articles/171737a0/metrics> (last visited Jan. 21, 2019).

9. Darrell M. West, *Technology and the Innovation Economy*, BROOKINGS (Oct. 19, 2011), <https://www.brookings.edu/research/technology-and-the-innovation-economy/>.

10. U.S. CONST. art. I, § 8, cl. 8.

11. Research and Development Efficiency Act, 42 U.S.C.A. § 6604(b)(1) (West 2017).

12. West, *supra* note 9; Daniel McGinn, *Innovation: America is Falling Behind, How to Fix It*, NEWSWEEK (Nov. 15, 2009, 7:00 PM), <https://www.newsweek.com/innovation-america-falling-behind-how-fix-it-76635>. Two-thirds of Americans surveyed in the NEWSWEEK-Intel Global Innovation Survey said they believed "innovation will be more important than ever to the U.S. economy over the next 30 years." *Id.*

for copyright infringement. In October of 2018, the American Chemical Society and Elsevier (collectively, “Elsevier”) filed a copyright infringement suit against ResearchGate in the Maryland District Court claiming \$470 million in potential damages.<sup>13</sup> Elsevier claims that ResearchGate “provides anyone connected to the Internet with a free trove of infringing digital copies of peer-reviewed published journal articles,” and that ResearchGate intentionally facilitates and “lures” users into uploading these unauthorized published journal articles.<sup>14</sup> The complaint further alleges that ResearchGate’s “business model critically relies on the viral growth of its file sharing/download service.”<sup>15</sup>

One can debate whether ResearchGate is a crusader for scientists or just profiteering off them.<sup>16</sup> One can also debate whether ResearchGate will settle or litigate, this lawsuit brought by Elsevier. Independent of these matters is the question of *why* ResearchGate finds themselves the subject of copyright infringement—why are scientists unable to post their own peer-reviewed articles freely? It is counterintuitive that the author of an article cannot distribute that article. However, many scientists cede their author copyrights to the publisher during the publishing process, often not recognizing what they are giving up.<sup>17</sup>

This Note will discuss in Part I how the academic publishing process functions and highlight who among the two parties, the author and the publisher, contributes to the process. Next, Part II discusses the appropriate copyright laws for application to the publishing process in Part III. The impact of copyright ownership in the publishing process is provided in Part IV with avenues for author copyright retention discussed in Part V.

## I. ACADEMIC PUBLISHING PRIMER

“If you cannot—in the long run—tell everyone what you have been doing, your doing has been worthless.” Erwin Schrodinger (Nobel Prize winner, physics).<sup>18</sup>

Why are peer-reviewed publications important? To illustrate the need for peer-review, imagine a scenario where a dedicated medical researcher has (miraculously) discovered a silver-bullet cure for cancer. Would this discovery change the world? Perhaps. But if the researcher fails to communicate these results, then they help no one—they just sit on the shelf. What if the researcher contacts a

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13. Complaint for Declaratory and Injunctive Relief and Damages, *Am. Chem. Soc’y v. ResearchGate GmbH*, No. 8:18-cv-03019 (D. Md. filed Oct. 2, 2018) [hereinafter *Complaint*]; Lindsay McKenzie, *Publishers Escalate Legal Battle Against ResearchGate*, INSIDE HIGHER ED (Oct. 4, 2018), <https://www.insidehighered.com/news/2018/10/04/publishers-accuse-researchgate-mass-copyright-infringement>.

14. *Complaint*, *supra* note 13, at 8, ¶ 22.

15. *Id.* at 9, ¶ 22.

16. See Jill Evans, *Review of ResearchGate: Pros and Cons and Recommendations*, OPEN RESEARCH EXETER (Nov. 6, 2013), <http://blogs.exeter.ac.uk/openresearchexeter/2013/11/06/74/>.

17. McKenzie, *supra* note 13.

18. *Science and Industry Quotes*, PLAIN LANGUAGE ACTION AND INFORMATION NETWORK, <https://www.plainlanguage.gov/resources/quotes/science-and-industry-quotes/> (last visited Jan. 21, 2019).

news organization to announce the results? Would the researcher's findings be used then? Still, probably not. The news organization cannot determine for itself if the results are accurate because it is unqualified to evaluate the study's scientific merits. For these results to be taken seriously, researchers must communicate their results (usually in the form of an article) to other scientists who can evaluate the results and methods employed to determine if they pass muster.

This is the essence of peer-review. Peer-review publishing is the core of academic work, and at its foundation is trust.<sup>19</sup> Trust in the peer-review process allows one researcher to pick up the peer-reviewed article of another, without knowing that author's reputation or even the topic, and know the article will meet certain standards of scientific quality. Over 300 years ago, the Royal Societies of Edinburgh and London established an early form of peer-review when they employed their members to help select articles for publication.<sup>20</sup> The peer-review process evolved from this early application in Edinburgh and London, and by the middle twentieth century, the process became widespread and standardized.<sup>21</sup>

It is unlikely that early scientists could have foreseen the expansive publishing landscape that exists today. It is estimated that 2.5 million peer-reviewed articles were published in 2014, with 34,585 active, scholarly journals responsible for publishing these articles.<sup>22</sup> When considering not only peer-reviewed articles but also books and noncommercially published grey literature, the Google Scholar index references anywhere from 100–160<sup>23</sup> million documents in 2014.<sup>24</sup> Though the

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19. *Scrutinizing Science: Peer Review*, UNIV. OF CAL. MUSEUM OF PALEONTOLOGY, [https://undsci.berkeley.edu/article/howscienceworks\\_16](https://undsci.berkeley.edu/article/howscienceworks_16) (last visited Jan. 19, 2019).

20. Michael L. Voight & Barbara J. Hoogenboom, *Publishing Your Work in a Journal: Understanding the Peer Review Process*, 7 INT'L J. SPORTS PHYS. THERAPY 452, 453 (2012); D. A. Kronick, *Peer Review in 18th Century Scientific Journalism*, 263 J. AM. MED. ASS'N. 1321, 1321–22 (1990).

21. Voight & Hoogenboom, *supra* note 20; see also John C. Burnham, *The Evolution of Editorial Peer Review*, 263 J. AM. MED. ASSOC. 1323, 1326 (1990).

22. Mark Ware & Michael Mabe, THE STM REPORT: AN OVERVIEW OF SCIENTIFIC AND SCHOLARLY JOURNAL PUBLISHING, INTERNATIONAL ASSOCIATION OF SCIENTIFIC, TECHNICAL AND MEDICAL PUBLISHERS 6, 27 (2015). STM publisher-members are responsible for publishing 66% of these journal articles. *Id.* at 2. Of the 34,585 scholarly journals, approximately a quarter are non-English-language journals (6,451) with the rest being English-language journals (28,134). *Id.* at 27 n.16.

23. Madian Khabisa & C. Lee Giles, *The Number of Scholarly Documents on the Public Web*, 9 PLOS ONE 1, 5 (2014) (study providing lower estimate of 100 million documents); Enrique Orduna-Malea et al., *Methods for Estimating the Size of Google Scholar*, 104 SCIENTOMETRICS 931, 946 (2014) (alternate study estimating 160 million documents on Google Scholar).

24. Ware & Mabe, *supra* note 22, at 27; Joachim Schöpfel, *Towards a Prague Definition of Grey Literature*, TWELFTH INT'L CONF. ON GREY LITERATURE: TRANSPARENCY IN GREY LITERATURE 11, 11 (2010), [https://archivesic.ccsd.cnrs.fr/sic\\_00581570/document](https://archivesic.ccsd.cnrs.fr/sic_00581570/document) (defining grey literature as “manifold document types produced on all levels of government, academics, business and industry in print and electronic formats . . . of sufficient quality to be collected and preserved by library holdings or institutional repositories, but not controlled

number of these articles is staggering, the number of publishers responsible for maintaining the journals and publishing these articles is smaller, estimated at 5,000–10,000 publishers.<sup>25</sup> Of these publishers, the larger players are generally members of English-language trade and professional associations for publishers,<sup>26</sup> with this group accounting for approximately 50% of journal output.<sup>27</sup> This population of prevalent journal publishers is comprised mostly of not-for-profit publishers, with 73% of the publishers and 20% of the journals falling under this category.<sup>28</sup>

Though a number of journals and publishers are located under this not-for-profit category, as later sections of this Article will discuss, this does not mean they freely provide peer-reviewed articles to the public.<sup>29</sup> Rather, a journal or an article's designation as either a green- or gold-access publication dictates how researchers and others can share the article.<sup>30</sup> Regardless of the incorporation model for these publishers, it is clear that the peer-review method has been employed widely. Additionally, as the next Section will discuss, the overall publishing process is consistent between different journals and publishers.

#### A. *Benefits and Uses of Academic Articles*

“If I have seen further, it is by standing upon the shoulders of giants.” Sir Isaac Newton.<sup>31</sup>

Science, like many other disciplines, is a cumulative art.<sup>32</sup> The body of scientific knowledge builds over time, and the peer-review process allows us to trust the body of work that came before us.<sup>33</sup> Contrary to what some may imagine when thinking of scientific research (perhaps someone in a lab coat writing equations on a board or hunching over a beaker), the experimentation phase is only one aspect of the overall process. The process generally begins with generating an idea or hypothesis.<sup>34</sup> Often, to even form this hypothesis, a scientist must be aware of and conduct a literature review of the existing, relevant, scientific work (typically peer-

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by commercial publishers i.e., where publishing is not the primary activity of the producing body.”).

25. Ware & Mabe, *supra* note 22, at 45.

26. This includes the Association of Learned and Professional Society Publishers (“ALPSP”), the Society for Scholarly Publishing (“SSP”), and the International Association of Science, Technical and Medical Publishers (“STM,” publishers of the report). *Id.*

27. *Id.*

28. *Id.*

29. *Infra* Part IV.

30. Ware & Mabe, *supra* note 22, at 88; PETER SUBER, OPEN ACCESS 6 (2012) (defining green-access as open access content delivered by a repository and gold-access as open access content delivered by journals, and noting that work that is not open access or “only available for a price” is sometimes called toll access).

31. *Science Over Time: Standing on the Shoulders of Giants*, SCI. LEARNING HUB, <https://www.sciencelearn.org.nz/resources/2612-science-over-time-standing-on-the-shoulders-of-giants> (last visited Apr. 15, 2019).

32. *Scrutinizing Science: Peer Review*, *supra* note 19.

33. *Id.*

34. *See* Ware & Mabe, *supra* note 22, at 12.

reviewed articles).<sup>35</sup> After forming a hypothesis, a scientist usually needs to secure funding to test the idea.<sup>36</sup> Generally, the previously conducted literature review is used to help convince funding agencies to grant research funds.<sup>37</sup> Once funding is secured, the scientist is free to execute the research plan, conduct experiments, and interpret the results.<sup>38</sup> If the scientist produced noteworthy results, those results are written up as an article for publication and dissemination to the larger scientific community.<sup>39</sup>

### *B. The Academic Publishing Process*

As discussed above, the peer-review process helps maintain trust in the scientific community. Beyond this, the process also provides registration for an idea, disseminates the results to the larger community, certifies the results meet with quality controls, and provides an archival record.<sup>40</sup> There are a large number of journals that scientists can submit their articles to for publishing, but rather than employ a shot-gun approach, most scientists submit their publication to only a handful of journals.<sup>41</sup> To ensure that the scientist's article reaches the optimal audience, the short-list of targeted journals is based on the journal's target audience, overall goals, and sometimes impact factor.<sup>42</sup>

Once the target journal is selected, the author (scientist) will format the article to meet the journal submission requirements and transmit it electronically to the journal editor.<sup>43</sup> This editor is generally a respected expert in the same scientific field as the journal, and though working as a part of the journal's editorial board, is often a researcher at a separate, non-publishing institution (e.g., a university, hospital, or research institute).<sup>44</sup> This article that the author sends as a part of the initial submission to the journal is called the "Author Original" or "Preprint,"<sup>45</sup> and

35. *See id.*

36. Interview with Dr. Kurt Sundell, Research Assoc., Univ. of Ariz. Dep't of Geosciences, in Tucson, Ariz. (Jan. 12, 2019); Interview with Dr. Paige Scalf, former Professor, Univ. of Ariz. Dep't of Psychology and Durham Univ., in Tucson, Ariz. (Aug. 19, 2019).

37. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; *see also* Ware & Mabe, *supra* note 22, at 12.

38. *See* Ware & Mabe, *supra* note 22, at 12; Interview with Dr. Kurt Sundell, *supra* note 36 (noting that a research cycle can be much more complicated due to additional licensing or approval steps needed before testing can begin).

39. *See* Ware & Mabe, *supra* note 22, at 12.

40. *Id.* at 16.

41. *See* M.S. Tullu & S. Karande, *Success in Publishing: Selecting an Appropriate Journal and Braving the Peer-review Process*, 64 J. POSTGRADUATE MED. 1, 1 (2018).

42. Padma R. Jirge, *Preparing and Publishing a Scientific Manuscript*, 10 J. HUM. REPRODUCTIVE SCI. 3, 4 (2017).

43. *See* Voight & Hoogenboom, *supra* note 20, at 455.

44. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, Professor of Med. and Med. Imaging, Univ. of Ariz. Coll. of Med., and Professor of Material Sci. & Eng'g and Biomedical Eng'g, Univ. of Ariz. Coll. of Eng'g, in Tucson, Ariz. (Aug. 21, 2019).

45. *Definitions: Article Versions*, IOP PUBL'G, <https://publishing.support.iopscience.iop.org/questions/article-versions/> (last visited Jan. 20, 2019).

most publishers, including Elsevier, maintain that authors are free to distribute their preprint article without any restrictions.<sup>46</sup>

If the journal article meets the journal requirements, the editor will do an initial evaluation and determine if the journal will either reject it or consider it for publication.<sup>47</sup> An article may be rejected at this stage, not because of the merits of the science, but because the article did not match the editorial policy or goals of the journal.<sup>48</sup> If the article passes this initial editor evaluation, it is sent to several experts (peers) for substantive review of the article's scientific content.<sup>49</sup> Very rarely are these peer-reviewers associated with the publisher.<sup>50</sup> Rather, they are members of the scientific community, usually at separate research institutions, and are selected for their expertise and reputation in the article's related research field.<sup>51</sup> These peer-reviewers ensure that supporting research is properly attributed, the methods are sound, and the research supports the conclusions. Further, these peer-reviewers provide the editor with their recommendation of either rejection, revisions, or acceptance of the article.<sup>52</sup> If the editor decides revisions are required, based on the peer-review feedback, the requested revisions from the peer-reviewers are relayed to the author; the author then either makes the requested edits, provides a rebuttal of why the revision should be rejected, or uses a combination of the two. The author returns the revised manuscript and the revision remarks to the editor, who decides to accept, reject, or send back out for re-evaluation by the peer-reviewers. Once everyone (the author, editor, and peer-reviewers) is satisfied with the article, the manuscript is then termed the "Accepted Manuscript" and the peer-review process is largely completed.<sup>53</sup>

While the preprint article may be freely shared, the accepted manuscript often comes with sharing restrictions, including a restriction on sharing via commercial sites such as ResearchGate.<sup>54</sup> Authors may share the accepted manuscript on a noncommercial personal homepage or to their research institute's digital repository (provided only for internal institutional use), and can only share

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46. *Article Sharing*, ELSEVIER, <https://www.elsevier.com/about/policies/sharing> (last visited Aug. 19, 2019).

47. *What is Peer Review?*, ELSEVIER, <https://www.elsevier.com/reviewers/what-is-peer-review> (last visited Jan. 20, 2019).

48. See Voight & Hoogenboom, *supra* note 20, at 454.

49. *What is Peer Review?*, *supra* note 47; Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

50. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

51. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

52. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44; see also *What is Peer Review?*, *supra* note 47.

53. *Definitions: Article Versions*, *supra* note 45.

54. *Article Sharing*, *supra* note 46.



with noncommercial institutional digital repositories (those open to the public) after an embargo period has passed.<sup>55</sup>

Once the author provides the final accepted manuscript, the journal performs final copy editing, formatting, typesetting, tagging,<sup>56</sup> and indexing on the article to create the “Final Published Version”<sup>57</sup> or “published Journal Article.”<sup>58</sup> The editor, along with the notification of article acceptance, also sends the author a publishing agreement. These publishing agreements often include a copyright assignment, where the author assigns to the publisher all of their copyrights.<sup>59</sup>

## II. COPYRIGHT

“Only one thing is impossible for God: to find any sense in any copyright law on the planet.” Mark Twain.<sup>60</sup>

### A. *Constitutional Foundation*

Often thought of as a product of statute, or if being generous, early common law, intellectual protection actually has a foundation in the Constitution.<sup>61</sup> The Founders gave the legislature the express power to regulate intellectual property to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”<sup>62</sup> Indeed, President Washington’s first State of the Union address evidences how important science was to our Founders:

There is nothing, which can better deserve your patronage, than the promotion of Science and Literature. Knowledge is in every Country the surest basis of public happiness. In one, in which the measure of Government receive [sic] their impression so immediately from the sense of the Community as in our’s [sic], it is proportionably essential.<sup>63</sup>

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55. *Id.*

56. Elsevier’s publishing agreement asks authors to provide “approximately 5–10 keywords” for the article, in addition to the overall work. *See* Contribution Agreement from Elsevier to Dr. Kurt Sundell, Univ. of Ariz., Dep’t of Geosciences (Dec. 10, 2018) [hereinafter Elsevier Publishing Agreement]. One could argue that authors do some of the article tagging themselves—not just the publisher.

57. *Definitions: Article Versions, supra* note 45.

58. Complaint, *supra* note 13, at 8.

59. Elsevier Publishing Agreement, *supra* note 56. The Elsevier Contribution Agreement is generous enough to provide the author one free, electronic copy of the Work with a 30% price reduction on further copy requests (only if not for resale). *Id.* Further, the author may copy up to 10% of the article for classroom use. *Id.*

60. Mark Twain said in his statement before the Committee of Patents of the Senate and House to discuss amending the Copyright Act of 1906. OXFORD DICTIONARY OF HUMOROUS QUOTATIONS 139 (Gyles Brandreth ed., 5th ed. 2013).

61. U.S. Const. art. I, § 8, cl. 8.

62. *Id.*

63. George Washington, U.S. President, State of the Union Address at Mount Vernon Ladies’ Ass’n (Jan. 8, 1790).

Between the President's endorsement and the constitutional power granted to Congress to award exclusive rights to authors and inventors, it is no surprise that some of the first legislation enacted by Congress concerned copyright and patents.<sup>64</sup> These early laws have undergone numerous changes since their enactment, with modern copyright law governed by the 1976 Copyright Act,<sup>65</sup> and patent law governed by the America Invents Act.<sup>66</sup> Although newer statutes have supplanted older versions, the overall principal guiding copyright law is to promote the creation of new works that benefit the public by providing authors with the economic incentive of limited monopolies.<sup>67</sup> The Supreme Court expanded on the purpose of this clause, stating "the economic philosophy behind the [Copyright] clause . . . is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare . . . ." <sup>68</sup> The author benefits from the limited monopoly and public welfare is advanced through the creation and dissemination of the author's ideas.<sup>69</sup> In striking the balance between public benefit and limited monopolies, the copyright statutes and case law seek to define copyrightable subject matter, copyright owners, the limited rights of copyright owners, and enforcement of copyrights.<sup>70</sup>

### ***B. Copyrightable Subject Matter***

Copyright protects "original works of authorship fixed in any tangible medium of expression."<sup>71</sup> Generally, copyright protection begins when the author fulfills the requirements of 17 U.S.C. § 102(a);<sup>72</sup> thus, protection begins when the original thought is fixed in a tangible medium.<sup>73</sup> Further, the statute allows *any* tangible medium of expression, which includes those we know now and those unknown at the time the law was enacted.<sup>74</sup> Any tangible medium of expression is permissible as long as it "can be perceived, reproduced, or otherwise

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64. The first Congress passed its first patent statute in 1790. 1 PETER S. MENELL ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE*: 2017, 157 (2017). The first Congress also passed the Copyright Act of 1790, granting authors a 14-year protection period for books, maps, and charts. *Id.* at 494.

65. Copyright Act of 1976, 17 U.S.C. §§ 101–1332.

66. Leahy-Smith America Invents Act of 2011, Pub. L. 112–29, 125 Stat. 284 (2011) (codified and amended in scattered sections of 35 U.S.C.).

67. *Twentieth Century Musical Corp. v. Aiken*, 422 U.S. 151, 156 (1975).

68. *Cambridge Univ. Press v. Patton*, 769 F.3d 1232, 1255–56 (11th Cir. 2014) (quoting *Mazer v. Stein*, 347 U.S. 201, 219 (1954)).

69. *Id.*

70. 17 U.S.C. §§ 101–513.

71. 17 U.S.C. § 102(a).

72. *JCW Inv., Inc. v. Novelty, Inc.*, 482 F.3d 910, 914 (7th Cir. 2007).

73. *Id.*

74. 17 U.S.C. § 102(a). The statute protects "original works of authorship fixed in any tangible medium of expression, now known or *later developed*." *Id.* § 102(a) (emphasis added).

communicated.”<sup>75</sup> This broad definition ensures copyright protection exists for a wide variety of digital works, plus the other enumerated work categories.<sup>76</sup>

While the Copyright Act is generous in its definition of a tangible medium of expression, there are limits to what subject matter the Act covers. The Supreme Court emphasized that a subject matter must also be original for copyright to apply, holding that “the work [must be] independently created by the author . . . and . . . possess[es] at least some minimal degree of creativity.”<sup>77</sup> In *Feist Publications v. Rural Telephone Service Co.*, a public-utility company claimed copyright infringement of its telephone directory white pages by a yellow-page competitor when the competitor incorporated some of the directory white-page numbers into its own directory.<sup>78</sup> The Court held the defendant did not infringe because the directory’s copied white pages were facts, not factual compilations, and therefore were not copyrightable subject matter.<sup>79</sup> Factual compilations may be eligible subject matter if the data was selected or arranged independently by the author in a way that displays “some creative spark, ‘no matter how crude, humble or obvious.’”<sup>80</sup> Though factual compilations themselves may be copyrightable, the facts contained within are not copyrightable, no matter how much “sweat of the brow” went into discovering these facts.<sup>81</sup> Further, the statute explicitly states that copyright does not protect an “idea, procedure, process, system, method of operation, concept, principle, or discovery.”<sup>82</sup>

### C. Rights of Copyright Owners

Section 106 of the 1976 Copyright Act sets forth a copyright owner’s exclusive rights.<sup>83</sup> An owner is allowed to or can authorize others:

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;

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75. 17 U.S.C. § 102(a).

76. *Id.* Works of authorship categories listed under the statute are: literary works; musical works; dramatic works; pantomimes and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works. *Id.*

77. *Feist Publ’ns v. Rural Tel. Serv.*, 499 U.S. 340, 345 (1991); 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 2.01[A], [B] (1990).

78. 499 U.S. 340, 342–44 (1991).

79. *Id.* at 348, 363.

80. *Id.* at 345.

81. *Id.* at 359–60.

82. 17 U.S.C. § 102(b).

83. *Id.* § 106.

(5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and

(6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.<sup>84</sup>

This Note will focus on the first three rights of copyright owners: (1) the right to reproduce; (2) the right to prepare derivative works; and (3) the right to distribute copies of the work to others. Reproduction rights are not limited to literal reproduction but also include any unauthorized making of “substantially similar” reproductions.<sup>85</sup> Distribution rights are closely tied to reproduction rights because historically, “reproduction has been the principal means of exploiting works of authorship.”<sup>86</sup> However, the emergence of the internet and its file-sharing ability has resulted in more cases of distribution-right infringement, separate from reproduction.<sup>87</sup> When anyone who is not authorized by the copyright holder performs one of these exclusive rights, they become liable for copyright infringement.<sup>88</sup>

#### *D. Right to Transfer*

As stated in the statute, copyright ownership, while originally vesting in the author, can be transferred through contract or an operation of law.<sup>89</sup> This transfer of ownership rights may be in whole or in part, and the person who receives the transferred rights is entitled to the same protections and remedies accorded to the copyright owner.<sup>90</sup> The Seventh Circuit Court of Appeals noted that “a copyright may be transferred from the person who satisfied the requirements for obtaining the copyright to one who contracts for such rights.”<sup>91</sup> When a contract is used to transfer copyright ownership, Section 204(a) dictates that the “instrument of conveyance . . . is in writing and signed by the owner of the rights conveyed.”<sup>92</sup>

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84. *Id.*

85. MENELL ET AL., *supra* note 64, Vol. II, at 627.

86. *Id.* at 680.

87. *Id.*

88. 17 U.S.C. § 106.

89. *Id.* § 201(a), (d).

90. *Id.* § 201(d).

91. *Id.*; *Erickson v. Trinity Theatre, Inc.*, 13 F.3d 1061, 1071 (7th Cir. 1994). The court noted that § 201(d) allows a contributor of uncopyrightable ideas to still receive compensation for the work through contract. *Erickson*, 13 F.3d at 1071. “Section 201(d) states in part that any part of the exclusive ownership rights comprised in a copyright may be transferred from the person who satisfied the requirements . . . to one who contracts for such rights.” *Id.* Thus, non-authors who contribute ideas to a work, such as “patron[s], employer[s], or contributor[s] of idea[s],” may contract for copyrights or a share of the profits from the author. *Id.* This copyright transfer is done through contract and should not be confused with gaining copyrights through authorship or joint authorship. *See id.* at 1070–71.

92. 17 U.S.C. § 204(a).

Copyright grants of exclusive licenses are considered a transfer of ownership rights, and, as such, also require the instrument of conveyance to be written and signed.<sup>93</sup>

### *E. Collective Works Copyright*

The Supreme Court addressed whether publishers holding the copyright for a collective work could claim the privilege accorded under Section 201(c) to “reproduc[e] and distribut[e]” the author’s individual articles to databases.<sup>94</sup> In deciding this privilege’s extent, the Court interprets the collective-works statute and provides a clear analogy to this Note’s issue of academic author and publisher copyright.<sup>95</sup> Section 201(c) of the Copyright Act of 1976 provides:

Copyright in each separate contribution to a collective work is distinct from copyright in the collective work as a whole, and vests initially in the author of the contribution. In the absence of an express transfer of the copyright or of any rights under it, the owner of copyright in the collective work is presumed to have acquired only the privilege of reproducing and distributing the contribution *as part of that particular collective work*, any revision of that collective work, and any later collective work in the same series.<sup>96</sup>

Prior to the 1976 revision to the Copyright Act, individual authors frequently lost their copyright when they published in a collective work.<sup>97</sup> One way Congress dealt with this issue of lost individual author copyright was by making copyrights a “bundle of discrete ‘exclusive rights,’”<sup>98</sup> with each right open to separate transfer and ownership. Section 201(c), together with other revisions, helped “preserve the author’s copyright in a contribution . . . without requiring any unqualified transfer of rights to the owner of the collective work.”<sup>99</sup> As such, Section 102(c) recognizes two separate copyrights in collective works: (1) the copyright of the “separate contribution;” and (2) the copyright of the “collective work as a whole.”<sup>100</sup> The collective works copyright holder is free to reproduce or distribute the individual article as long as it remains a part of the collective work. In *New York Times Co. v. Tasini*, when the publishers distributed the individual articles to databases, they failed to do so as a part of the collective works and thus were guilty of copyright infringement against the article author/copyright owner.<sup>101</sup>

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93. See generally *Imperial Residential Design, Inc. v. Palms Dev. Grp., Inc.*, 70 F.3d 96 (11th Cir. 1995).

94. *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 487–88 (2001).

95. *Id.*

96. 17 U.S.C. § 201(c) (emphasis added).

97. *Tasini*, 533 U.S. at 494.

98. *Id.* at 495 (quoting 17 U.S.C. § 106).

99. *Id.* at 496 (quoting H.R. REP. NO. 94-1476, at 122 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5738).

100. *Tasini*, 533 U.S. at 493–94 (quoting 17 U.S.C. § 201(c)).

101. *Id.* at 502, 506 (holding that the collective-work copyright holder, the publishers, infringed on the author’s copyright when they provided the database users the individual articles, not intact periodicals).

### III. WHO OWNS WHAT? COPYRIGHT APPLICATION TO ACADEMIC JOURNAL ARTICLES

As discussed in the Introduction, Elsevier is suing ResearchGate for infringement that occurs when authors post their published journal articles to the ResearchGate website. Elsevier is able to bring suit because authors frequently transfer their individual article copyright to the publisher. Thus, publishers like Elsevier often own both the collective work and article copyrights for these published articles. This Section will discuss who owns the copyrights during the peer-review publishing process and how publishers gain all copyrights through contracts.

Copyrights come into existence when an author translates his or her original thoughts into a fixed tangible medium; and the copyright ownership vests initially with the author.<sup>102</sup> While the author's ideas, methods, and data themselves are not copyrightable, the original and fixed expression of the author's thoughts and findings (the manuscript) is protectable by copyright.<sup>103</sup> Even a data table may be protected by copyright if it is a factual compilation.<sup>104</sup> If it took the author some "creative spark" to arrange the data in the way the author did, it is copyrightable subject matter.<sup>105</sup> Publishers seemingly acknowledge that the author retains copyright ownership of this preprint manuscript because they allow authors to freely distribute this version.<sup>106</sup> However, while the copyright ownership belongs with the author at this stage of the peer-review process, the manuscript is relatively worthless because it has not been evaluated by other scientists.

If the publisher rejects the preprint manuscript, no further copyright analysis is required. Rather, the author retains his or her author copyright on a non-peer-reviewed article.<sup>107</sup> However, if the preprint manuscript is accepted for peer-review, the publisher becomes more involved in the process and the copyright-ownership analysis must continue. One could argue that in coordinating the peer-review process the publisher is providing some original input into the manuscript, and thus alters the copyright ownership.<sup>108</sup> However, the publisher is merely coordinating the process and does not itself provide copyrightable material to the

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102. 17 U.S.C. § 102(a); *JCW Invs., Inc. v. Novelty, Inc.*, 482 F.3d 910, 914 (7th Cir. 2007).

103. 17 U.S.C. § 102(b); *Feist Publ'ns v. Rural Tel. Serv.*, 499 U.S. 340, 348 (1991).

104. *Feist Publ'ns*, 499 U.S. at 348.

105. *Id.* at 359.

106. *Article Sharing*, *supra* note 46.

107. See IOP SCI. PUB. SUPPORT, *Preprint Pre-publication Policy*, IOP PUBLISHING, <https://publishingsupport.iopscience.iop.org/questions/article-versions/> (last visited Jan. 20, 2019). While the author retains copyright of the preprint article, some journal policies still impact how authors can share their articles. IOP journals consider an author preprint posting on ResearchGate or Academia.edu as "pre-publications" and, as such, cannot be considered for publication in their journals. *Id.*

108. See IOP SCI. PUB. SUPPORT, *The Review Process on Our Journals*, IOP PUBLISHING, <https://publishingsupport.iopscience.iop.org/authoring-for-journals/?step=4> (last visited Jan. 20, 2019).

individual article.<sup>109</sup> The peer-reviewers that the manuscript is sent to for review certainly produce copyrightable material when they record their thoughts and counterarguments to the author; however, these reviewers are generally scientists at other research institutions—not employees of the publisher.<sup>110</sup> Even if we consider these peer-reviewers agents of the publisher, at this point in the process, they are only providing feedback on the preprint manuscript and not altering the manuscript itself.<sup>111</sup> Accordingly, even when the author is in possession of the peer-review feedback, the manuscript copyright is still held by the author because the manuscript is still the author's original work fixed in a tangible medium.

If we accept that up until this point in the process the manuscript copyright is still held by the author, the question now is whether the incorporation of the peer-review comments changes the ownership. This incorporation does not change the author copyright ownership. As discussed above, it is not really the publisher that provides copyrightable subject matter or substantive feedback, but rather these other research scientists, and as such, creative input from the publisher itself is minimal.<sup>112</sup> Further, it is left to the author to decide how to incorporate the peer-review edits into the manuscript.<sup>113</sup> The author rarely uses the peer-review comments verbatim in the edited manuscript, and sometimes these edits are not included at all.<sup>114</sup> Rather, the author has discretion over how and what edits are incorporated into the new manuscript, and accordingly, the manuscript remains the author's original work.<sup>115</sup>

Of course, if the author has discretion over what peer-review feedback to incorporate into the manuscript, the publisher similarly has discretion over whether

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109. See *id.*; Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

110. While peer-reviewers are not employees of the publisher, there is some question as to whether they are under the control of the publisher. The publisher coordinates (or referees) the peer-review process, which may be important in blind- or double-blind evaluations, but it does not provide copyrightable material. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44; see also IOP SCI. PUB. SUPPORT, *supra* note 108. The possible agency relationship between peer-reviewers and publishers is not addressed in this Note.

111. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

112. The publisher may be coordinating the peer-review process or the peer-reviewers may be agents of the publisher, but the publishers themselves are not generating written (i.e. fixed in a tangible medium), creative, substantive comments. 17 U.S.C. § 102(a); Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

113. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

114. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

115. *Erickson v. Trinity Theatre, Inc.*, 13 F.3d 1061, 1068–69 (7th Cir. 1994) (finding defendant's "collaboration alone" test for joint authorship not supported by the statutory language of 17 U.S.C. § 201, stating "[s]eldom would an author subject his work to pre-registration peer review if this were the applicable test. Those seeking copyrights would not seek further refinement that colleagues may offer if they risked losing their sole authorship.").

to publish the article in light of the feedback.<sup>116</sup> When presented with the feedback-incorporated manuscript from the author, the editor can accept it the way it is, reject it outright, or instruct the author to incorporate peer-review edits that the editor feels are important.<sup>117</sup> While the editor, acting on behalf of the publisher, may exert pressure on the author to make certain changes, it is still the author who does so, and therefore is responsible for generating the original work.<sup>118</sup> Further, while the publisher may exert some control over the *idea*, it is still not responsible for creating the tangible work at this point.<sup>119</sup> Ideas are not copyrightable, but the tangible expression of them as original works is.<sup>120</sup> Accordingly, the accepted manuscript copyright belongs to the author alone.

While the preprint manuscript and the accepted manuscript copyrights should belong to the author because the author is responsible for creating the original work, the final step of the publishing process involves relinquishing the manuscript to the publisher.<sup>121</sup> After the publisher accepts the manuscript it will format the manuscript in accordance with the journal style and may make minor copy edits to the work.<sup>122</sup> This acceptance of the article is where the publisher gains its collective-work copyright. The publisher's act of selecting, coordinating, and arranging the articles for its journal is an original work.<sup>123</sup>

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116. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

117. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44; *see also* IOP Science Publishing Support, *Getting a First Decision on Your Article*, IOP PUBLISHING, <https://publishingsupport.iopscience.iop.org/authoring-for-journals/?step=4> (last visited Jan. 20, 2019).

118. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

119. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

120. Copyright in joint works requires “two or more authors.” 17 U.S.C. § 101. Under the joint works, an author “must supply more than mere direction or ideas. An author is ‘the party who actually creates the work, that is, the person who translates an idea into a fixed, tangible expression entitled to copyright protection.’” *Erickson*, 13 F.3d at 1071 (quoting *Cnty. for Creative Non-Violence v. Reid*, 490 U.S. 730, 737 (1989)).

121. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44; *see also* IOP SCI. PUB. SUPPORT, *supra* note 108.

122. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

123. The Supreme Court noted that factual compilations may be original, and therefore copyrightable subject matter, if “choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws.” *Feist Publ'n, Inc. v. Rural Tel. Serv.*, 499 U.S. 340, 358 (1991). The Supreme Court later applied this statement to collective works. *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 494 (2001).



As Section 201(c) of the Copyright Act makes clear, a collective-work copyright is separate from the individual article copyright.<sup>124</sup> The publisher owns the copyright for the collective work (i.e., the issue that the accepted manuscript becomes a part of), while the individual accepted manuscript copyright remains separate.<sup>125</sup> Just as the individual author cannot lay claim to the copyright of the whole issue the accepted manuscript is a part of, the publisher cannot, through its collective-work copyright, lay claim to the individual accepted manuscript copyright.<sup>126</sup> Thus, at the end of the publishing process, the author should still retain his or her individual copyright for the manuscript and the publisher should gain copyright in the collective work through its selection and arrangement of the article.

It would seem at the end of this analysis that authors should be able to distribute both their accepted manuscript and published journal article versions on websites, such as ResearchGate. Admittedly, for the published journal article they could not distribute the whole issue in which their manuscript appears, but because the individual article copyright remains with the author, the author's posting of the individual article should not be problematic. However, we know authors posting their individual articles is problematic because authors often contract their individual copyrights away during the final publishing step.<sup>127</sup>

Though publishing agreements vary, this Note utilizes two different agreements, each from a major publishing company,<sup>128</sup> Elsevier<sup>129</sup> and Wiley.<sup>130</sup> Under the Elsevier publishing agreement, the author "assigns to the Publisher the copyright and all other rights in and to the Contribution" in order to "facilitate the publication of the Contribution."<sup>131</sup> Similarly, the author must "transfer copyright" to Wiley under its Copyright Transfer Agreement; the agreement further states that "[p]ublication cannot proceed without a signed copy of this Agreement."<sup>132</sup> Both the Elsevier and Wiley agreements contain a guarantee from the authors that they "have the right to grant the Publisher the rights described [in the agreement],"<sup>133</sup> and that

124. 17 U.S.C. § 201(c); see *Tasini*, 533 U.S. at 493–94.

125. *Tasini*, 533 U.S. at 494.

126. See *id.* at 493–94.

127. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44; McKenzie, *supra* note 13 (noting "it can 'come as a shock' to many authors that they 'do not have the right to share their work as they choose due to their publishing agreements.' Many authors do not realize that they transfer their copyright to publishers as part of their manuscript submission process.").

128. RELX Group (Reed Elsevier) is ranked second on the list of the top 50 largest publishing companies worldwide and Wiley is ranked tenth. Rudiger Wischenbart & Michaela Anna Fleischhacker, THE "GLOBAL 50" RANKING OF INTERNATIONAL PUBLISHING INDUSTRY 7 (2018), [https://www.wischenbart.com/upload/Global50-2018\\_overview\\_ToC.pdf](https://www.wischenbart.com/upload/Global50-2018_overview_ToC.pdf).

129. Elsevier Publishing Agreement, *supra* note 56.

130. See Copyright Transfer Agreement from Wiley to Dr. Kurt Sundell, Univ. of Ariz., Dep't of Geosciences (June 1, 2018) [hereinafter Wiley Publishing Agreement].

131. Elsevier Publishing Agreement, *supra* note 56.

132. Wiley Publishing Agreement, *supra* note 130.

133. Elsevier Publishing Agreement, *supra* note 56.

in cases where authors cannot transfer the copyright, such as U.S. government employees, the “copyright should be transferred to [Wiley] by any of the privately employed authors.”<sup>134</sup>

These publishing agreements support the copyright analysis above; after all, the publisher would not be contracting for rights it did not believe the author possessed. Once the publishing agreement is signed, the author assigns all individual article copyrights to the publisher, thus enabling publishers like Elsevier to litigate against infringers, such as ResearchGate. When the author posts his or her article to the ResearchGate website, the author is engaging in copyright infringement because the author no longer has rights to their own work.

#### IV. IMPACT OF CURRENT PUBLISHING SYSTEM

When authors lose their article, they lose all the rights associated with being the copyright owner, including the right to distribute and make copies of the work. The Elsevier publishing agreement provides the author with one free electronic copy of the completed collective work, and a 30% discount on additional hard copies of the work if the use is limited to personal use and “not for resale.”<sup>135</sup> Further, the authors cannot even distribute their articles in a classroom setting because they are limited to making “copies of up to ten percent (10%) of the Contributor’s original materials.”<sup>136</sup> Wiley allows its authors to deposit the accepted manuscript version of their articles to their institutional repositories and personal websites provided that the sites are not public.<sup>137</sup> Only after an embargo period of one to two years can an accepted manuscript be made public on these sites.<sup>138</sup> Similarly, Elsevier allows authors to deposit their accepted manuscript versions of the article to repositories like arXiv or RePEc, or their institutional repositories as long as use is for internal institutional uses.<sup>139</sup> After an embargo period, the author can make the accepted manuscript version public, but only on their institutional repository.<sup>140</sup> Elsevier explicitly states that the published journal article “cannot be shared publicly, for example on ResearchGate or Academia.edu.”<sup>141</sup>

If the final copyright ownership outcome of the traditional publishing process seems unfair,<sup>142</sup> then the financial and societal impacts of this system further

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134. Wiley Publishing Agreement, *supra* note 130.

135. Elsevier Publishing Agreement, *supra* note 56; *Article Sharing*, *supra* note 46 (separate from the publishing agreement, Elsevier also outlines on its website ways authors can share their published journal articles. One of these options allows authors to “share [their] Published Journal Article . . . privately with known students or colleagues for their personal use.”).

136. Elsevier Publishing Agreement, *supra* note 56.

137. *Article Sharing Policy*, WILEY ONLINE LIBRARY, <http://olabout.wiley.com/WileyCDA/Section/id-826716.html> (last visited Feb. 10, 2019).

138. *Id.*

139. *Article Sharing*, *supra* note 46.

140. *Id.*

141. *Id.*

142. Perhaps this process is fair. Prior to the advent of the internet, distribution of an article (via journal issues) was controlled by the publishers. This was not because authors

confirm this injustice. For-profit publishers, such as Elsevier, Springer, or Wiley, produce astronomical profit margins.<sup>143</sup> Outcompeting Apple, Google, ExxonMobil, and Amazon in 2010, the scientific publishing branch of Elsevier reported a 36% profit margin.<sup>144</sup> Most traditional publishers, like magazines, have much lower profit margins, with successful ones only making 12–15% profit.<sup>145</sup>

As discussed in Parts II and III, publishers can profit massively in the scientific peer-review market because many of the costly tasks in traditional publishing fields are performed for free.<sup>146</sup> In a conventional publishing setting, the publisher must pay for the articles it publishes; an author is either paid by the publisher to cover a story, or the author invests his or her own time and resources to produce the article. The author recoups the expense when selling the article to the publisher.<sup>147</sup> Conversely, in the scientific peer-review publishing field, authors submit their article for free to publishers, with the cost of the research largely covered by government-provided research grants.<sup>148</sup> Further, scientific publishers get their substantive editing work (the peer-review process) for free, unlike conventional publishing settings where the editorial work must be paid for by the publisher.<sup>149</sup>

After “duck[ing] most of the actual costs,” these scientific publishers then sell licenses to their copyrighted articles to government-funded institutions, such as universities and libraries, for use in the scientific process.<sup>150</sup> These journal licenses are not cheap.<sup>151</sup> For-profit publishers charge institutions anywhere from three to ten times more per article than their non-profit publisher counterparts.<sup>152</sup> Subscription costs grew so much that in 2008, Harvard University was forced to undertake

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were unable to distribute their individual work, but because authors did not have the means or interest in physically distributing their work. However, the internet now provides authors with an infinite number of ways to distribute their work. The holding in *Tasini* means that publishers must secure both the collective work and individual author copyright if they are to control the distribution of the article. See *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 493–95 (2001).

143. See Stephan Buranyi, *Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?*, THE GUARDIAN (June 27, 2017, 1:00 PM), <https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science>.

144. *Id.*; SUBER, *supra* note 30, at 32.

145. Buranyi, *supra* note 143.

146. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

147. See Randy Duermyer, *A Freelancer’s Guide to the Gig Economy*, THE BALANCE (Dec. 31, 2018), <https://www.thebalancesmb.com/what-is-freelancing-1794415>.

148. Buranyi, *supra* note 143.

149. *Id.*

150. *Id.*

151. Theodore C. Bergstrom et al., *Evaluating Big Deal Journal Bundles*, 111 PROC. NAT’L ACAD. SCI. U.S. OF AM. 9425, 9429 (2014).

152. Elsevier’s prices were on the low end of the range, costing universities only three times more than nonprofit journals while Emerald, Sage, and Taylor & Francis publisher charged almost ten times more. *Id.* at 9426.

“serious cancellation efforts,” resulting in “serious access gaps.”<sup>153</sup> When scientists cannot reliably access journal literature, it hinders their research.<sup>154</sup> Access gaps to journal literature only worsen as one moves outside affluent institutions, especially to those in developing countries.<sup>155</sup>

In response to these growing subscription costs from publishers and the recognition of access gaps that stifle research, the Open Access Movement entered the academic arena in the early 2000s. This Movement spurred several sharing avenues for authors, such as digital repositories for articles, open-access journals, and university open-access policies.<sup>156</sup> However, as the Sections below will discuss, these new sharing avenues do not all address author copyright loss.

## V. OPEN ACCESS MOVEMENT

### A. *What is Open Access?*

Open Access (“OA”) is a nebulous term and it must be defined and distinguished from an Open Access Policy (“OAP”). In this Note, an Open Access Policy is a policy adopted and enacted<sup>157</sup> by a university that sets forth rights to its faculty’s scholarly articles.

Open Access, separate from a university policy, is literature that is “digital, online, free of charge, and free of most copyright and licensing restrictions.”<sup>158</sup> This definition can be broken into two components: one focusing on how the open access literature is supplied digitally, online, and free of charge to the public; and, the other focusing on how the public can utilize the open access literature, e.g., copyright.<sup>159</sup>

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153. SUBER, *supra* note 30, at 30.

154. *Id.* A 2009 survey by the Research Information Network found among surveyed researchers that 66% of them had trouble accessing literature monthly, and 40% of that 66% had trouble accessing literature weekly. *Id.*

155. *Id.* The Indian Institute of Science, the best-funded research library in India, subscribed to 10,600 journals, while Harvard was able to subscribe to 98,900 journals, and Yale to 73,900. *Id.*

156. *See generally id.*

157. Adoption and enacting mechanisms vary among universities, and even vary within university systems. For the University of California system, the Open Access Policy was first adopted by the Academic Senate of the University of California, but later expanded by a Provost enacted Presidential Open Access Policy. *UC Open Access Policies*, U.C. OFF. SCHOLARLY COMM., <https://osc.universityofcalifornia.edu/open-access-policy/> (last visited Oct. 19, 2018). The University of Minnesota’s OA Policy was initiated by faculty and then approved by the Faculty Senate, but the “Policy Owner(s)” and “Responsible University Officer(s)” are the Executive Vice President and Provost. *Administrative Policy on Open Access to Scholarly Articles*, U. MINN.: U. POL’Y LIBR., <https://policy.umn.edu/research/scholarlyarticles> (last visited Oct. 20, 2018). The mechanism for adopting OA policies within a university are not the focus of this Note, rather the important inquiry is whether a university has adopted a clear policy.

158. SUBER, *supra* note 30, at 4.

159. *See Read the Budapest Open Access Initiative*, BUDAPEST OPEN ACCESS INITIATIVE, <https://www.budapestopenaccessinitiative.org/read> (last visited Oct. 20, 2018).

The story of Open Access is closely intertwined and facilitated by the advent of computers and the internet. Copying works became easier as we moved from pens to computers, and the internet further revolutionized how we could share and distribute that work globally.<sup>160</sup> Indeed, shortly after the internet began transitioning to widespread infrastructure,<sup>161</sup> one of the first open access repositories, arXiv, was formed in 1991 by Paul Ginsparg at Los Alamos National Laboratory, born of an effort to share preprints of physics articles with colleagues.<sup>162</sup> One of the first free online peer-reviewed journals, *New Horizons in Adult Education*, was launched even earlier in 1987 by the Syracuse University Kellogg Project.<sup>163</sup> Further, the motivation for developing ARPANET (Advanced Research Projects Agency Network), the modern internet forerunner, was to allow researchers to share information; in this way, it is clear that open access and the internet are closely intertwined.<sup>164</sup>

While modern advances in computers and the internet helped spark and enable the Open Access Movement, it was not until almost ten years later that formal policy initiatives took shape. Leaders in the alternative publishing arena and Open Society Institute members first met in Budapest in 2001 and coined the term “open access,”<sup>165</sup> envisioning the movement as the removal of access barriers to research to “lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge.”<sup>166</sup> This Budapest meeting, along with subsequent open-access meetings, identified four primary mechanisms to provide for *how* literature becomes available online, digitally, and free of charge: open access publishing;

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160. SUBER, *supra* note 30, at 1.

161. BERRY M. LEINER ET AL., BRIEF HISTORY OF THE INTERNET 10 (1997). The United States’ NSFNET program helped transition the internet from individual research community networks into the global infrastructure from 1986 to 1995. *Id.* at 11.

162. *History of Open Access Movement*, OPEN ACCESS, <https://open-access.net/DE-EN/information-on-open-access/history-of-the-open-access-movement/> (last visited Oct. 20, 2018). ArXiv repository now provides open access to 1,453,499 e-prints in physics, mathematics, computer science, qualitative biology, quantitative finance, statistics, electrical engineering and systems science, and economics. ARXIV, <https://arxiv.org> (last visited Oct. 20, 2018).

163. See *Timeline before 2000*, OPEN ACCESS DIRECTORY, [http://oad.simmons.edu/oadwiki/Timeline\\_before\\_2000](http://oad.simmons.edu/oadwiki/Timeline_before_2000) (last visited Oct. 20, 2018). This Open Access Directory is an open access focused wiki co-founded by Peter Suber and hosted by The School of Library and Information Science at Simmons University. *About OAD*, OPEN ACCESS DIRECTORY, [http://oad.simmons.edu/oadwiki/About\\_OAD](http://oad.simmons.edu/oadwiki/About_OAD) (last visited Oct. 20, 2018). The Open Access Directory limits editing privileges to registered users to control quality of information. *Id.*

164. LEINER ET AL., *supra* note 161, at 7 (“[A] major initial motivation for both the ARPANET and the Internet was resource sharing.”).

165. Melissa Hagemann, *Ten Years On, Researchers Embrace Open Access*, OPEN SOCIETY FOUND.: VOICES (Feb. 14, 2012), <https://www.opensocietyfoundations.org/voices/ten-years-on-researchers-embrace-open-access>.

166. *Read the Budapest Open Access Initiative*, BUDAPEST OPEN ACCESS INITIATIVE, <https://www.budapestopenaccessinitiative.org/read> (last visited Oct. 20, 2018).

digital repositories; enactment of Open Access Policies; and author rights enablement.<sup>167</sup>

Open access publishing refers to journals that “shift[] the costs of publishing so that readers, practitioners, and researchers obtain content at no cost.”<sup>168</sup> On its face this idea is simple. But in practice, the distribution of costs, reader rights, reuse rights, and copyrights vary among even open access journals.<sup>169</sup> For brevity, this Note will not discuss open-access publishing. Rather, it is enough to know that these journals exist to promote open content to readers and are an avenue for authors to explore when submitting their manuscript to publishers.<sup>170</sup> As explained more fully below, OAPs work together with digital repositories to achieve open access goals and are accordingly discussed together. Finally, author-right enablement or retention avenues are discussed in detail below.

### ***B. Mechanisms for Enacting***

#### *1. University Open Access Policies*

Though statements and declarations help define and set goals for the Open Access Movement, they carry little to no legal weight. Further, while the open access statements have increased awareness in the academic community, they failed to provide legal tools for *how* authors can share their articles under the open access framework. Universities, being a hub of academic publishing and frequently in possession of legal resources, began enacting OAPs in 2008 with Harvard’s Faculty of Arts and Sciences Open Access Policy adoption.<sup>171</sup>

To gain insight into the present OAP<sup>172</sup> landscape, the top 20 research universities in the United States were reviewed for their general scope and legal mechanism for providing the public open access. For this Note, the top 20 research universities were determined by using U.S. News and World Report Best National

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167. *Open Access to Scholarly and Scientific Research Articles*, SPARC, 1, [https://sparcopen.org/wp-content/uploads/2017/04/Open-Access-Factsheet\\_SPARC.11.10-3.pdf](https://sparcopen.org/wp-content/uploads/2017/04/Open-Access-Factsheet_SPARC.11.10-3.pdf) (last visited Oct. 20, 2019).

168. *How Open Is It?*, SPARC & PLOS, [https://www.plos.org/files/HowOpenIsIt\\_English.pdf](https://www.plos.org/files/HowOpenIsIt_English.pdf) (last visited Feb. 12, 2019).

169. *See id.*

170. *See* SUBER, *supra* note 30, at 52–65.

171. *See, e.g., Harvard Faculty of Arts and Sciences Open Access Policy*, HARVARD LIBRARY, <https://osc.hul.harvard.edu/policies/fas/> (last visited Nov. 18, 2018). Though Harvard was one of the earliest enactors of Open Access Policy, their policy is not described in detail in this Note. Harvard’s Open Access Policies were enacted by different schools within the university over time (Harvard’s Faculty of Arts & Sciences enacted in 2008 while the Harvard Business School enacted their policy in 2010), making a succinct description of their overall policy difficult. *See Browse by Country*, REGISTRY OF OPEN ACCESS REPOSITORY MANDATES AND POLICIES, <http://roarmap.eprints.org/view/country/840.html> (last visited Aug. 25, 2019) (when viewing the registry, one can observe ten separate, school-specific Harvard policies and one university-wide Princeton University policy).

172. In this Note, “Open Access Policy” means a university adopted and enacted policy that sets forth rights to their faculty’s scholarly articles.

University rankings.<sup>173</sup> Leading the U.S. News & World Report rankings as a R1 institute<sup>174</sup> was Princeton University.<sup>175</sup> Princeton's OAP and related faculty documents are discussed in detail below. While all of the top 20 research university OAPs were researched, only the Princeton Model is discussed in detail due to the university's high ranking and its robust documentation.

#### a. Princeton Model

In 2011, Princeton University adopted an OAP where faculty members grant the university "a nonexclusive, irrevocable, worldwide license to exercise any and all copyright in their scholarly articles published in any medium, whether now known or later invented" to the university.<sup>176</sup> There are restrictions on this license—the "scholarly articles" mentioned in the license are directed to faculty scholarly articles and these articles consist only of those published in journals and conference proceedings.<sup>177</sup> Further, these articles cannot be sold by the university for a profit, and most importantly, this policy only retains rights for the university—not the author.<sup>178</sup>

The Princeton OAP acknowledges that this license may cause "conflicting transfer of copyright" with publishers, causing the faculty authors to breach a contract.<sup>179</sup> To address this issue, the policy provides an author addendum and instructs authors to add the statement "subject to attached Addendum" to the publisher's copyright transfer or publication agreement before signing.<sup>180</sup> The attached addendum, which the author fills out and also returns to the publisher, subjects the Publication Agreement to Princeton's OAP license, where the university "may make the [Article] available and may exercise all rights under copyright."<sup>181</sup> Further, the addendum distinguishes what stage of the manuscript it claims a license to when it states, "Princeton may use the Author's final manuscript

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173. *National University Rankings*, U.S. NEWS & WORLD REP., <https://www.usnews.com/best-colleges/rankings/national-universities> (last visited Nov. 18, 2018).

174. *Basic Classification Description*, CARNEGIE CLASSIFICATION INST. HIGHER EDUC., [http://carnegieclassifications.iu.edu/classification\\_descriptions/basic.php](http://carnegieclassifications.iu.edu/classification_descriptions/basic.php) (last visited Nov. 18, 2018) (doctoral universities that award at least 20 research/scholarship doctoral degrees per year are classified as R1: Doctoral Universities, which have the highest research activity).

175. *National University Rankings*, *supra* note 173; *Basic Classification Description*, *supra* note 174.

176. *Office of the Dean of the Faculty*, PRINCETON U., <https://dof.princeton.edu/policies-procedure/policies/open-access> (last visited Nov. 13, 2018).

177. *Id.*

178. *Id.*

179. *See id.*

180. *Addendum to Publication Agreement*, PRINCETON U., <https://dof.princeton.edu/sites/dof/files/Author%20Addendum.pdf> (last visited November 13, 2018).

181. *Id.*

of the [Article] (including all modifications from the peer-review process), but will not use a facsimile of the final published version of the [Article].”<sup>182</sup>

The publisher can either sign the attached OAP addendum or publish the article to accept the addendum.<sup>183</sup> If the publisher does not accept the OAP addendum, then the author must request a copyright waiver from the university.<sup>184</sup> While this OAP addendum may clarify the copyright relationship between the author, university, and publisher; the OAP addendum is not required for the university’s OAP to take effect.<sup>185</sup> Rather, “[e]ven without the attachment of an addendum, the license to Princeton will still have force unless it is waived” by the author for that specific article.<sup>186</sup> In other words, the OAP requires no affirmative action by the author to grant the university this nonexclusive, irrevocable license; it instead requires authors to affirmatively opt out of this policy by filling out and submitting a copyright waiver to the university Provost.<sup>187</sup>

As noted above, the Princeton OAP extends to faculty scholarly articles. But who exactly are faculty and how does the university grant itself this license on behalf of the faculty? The Princeton Dean of the Faculty provides a Rules and Procedures document which outlines the scope and duty of the faculty as well as the university-faculty copyright relationship.<sup>188</sup> The faculty is composed of Professors, Associate Professors, Assistant Professors, Senior Lecturers, and full-time Lecturers and Instructors; most of these faculty evaluate an author’s body of published academic articles as a part of hiring and promotional criteria.<sup>189</sup>

Princeton outlines its copyright policy on both its Faculty Policy Library and the Faculty Rules and Procedures websites.<sup>190</sup> Both sources cite the same material and acknowledge that copyright for copyrightable products of “normal teaching and research efforts of its faculty” remains with the authors.<sup>191</sup> Many of the scholarly articles covered by the university’s OAP are products of “normal . . . research efforts” and, as such, those faculty authors are the original holders of the copyright for their articles.<sup>192</sup>

182. *Id.*

183. *Id.*

184. *Id.*

185. *Office of the Dean of the Faculty, supra* note 176.

186. *Id.*

187. *Id.*

188. *Rules and Procedures of the Faculty of Princeton University and Other Provisions of Concern to the Faculty*, PRINCETON U., <https://dof.princeton.edu/sites/dof/files/images/Princeton%20Faculty%20Rules%20and%20Procedures.pdf>? (last visited Nov. 13, 2018).

189. *Id.* at 10.

190. *Id.*; *Princeton University Copyright Policy*, PRINCETON U., <http://copyright.princeton.edu/pu-copyright-policy> (last visited June 14, 2019).

191. *Policy Library: Copyright*, PRINCETON U., <https://dof.princeton.edu/policies-procedure/policies/copyright> (last visited Nov. 13, 2018).

192. *Id.* While most normal teaching and research effort material copyright remains with the author, the policy does make a few exceptions: (1) where a specific contract between the author and university provides otherwise; (2) where the university makes “substantial



While a university OAP may allow the author to share the article with the university digital repository, it does not allow the author to post the article to a site like ResearchGate.<sup>193</sup> And though these digital repositories, as enabled by the OAP, may allow for some public access to the work, as discussed below, these repositories may be difficult to navigate for users. Further, it is unclear whether the university can grant itself a nonexclusive license in a work it admits over which it has no copyright ownership before the work even comes into existence.<sup>194</sup> Copyrights can be transferred, but an exclusive license transfer of rights requires the conveyance be in “writing and signed by the owner.”<sup>195</sup> When an author submits the university OAP author addendum to a publisher the conveyance of nonexclusive rights to the university is executed in writing and signed by the author, enabling this transfer. However, many OAPs state that the license is enforced even when the author chooses not to submit an OAP author addendum, which calls into question the university’s license over such articles.<sup>196</sup>

## 2. Digital Repositories

An Open Access digital repository (“OA repository”) is simply a collection and related database of articles, usually peer-reviewed and associated with a university or research institution.<sup>197</sup> While many OA repositories are associated with universities, some repositories are discipline focused, containing articles authored by unaffiliated university researchers.<sup>198</sup>

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expenditures for additional work” that the author undertakes that produces personal income from outside the university; and (3) where the author develops copyrightable material as a part of his or her “specifically assigned duties.” *Id.*

193. See *Policy Library: Open Access*, PRINCETON U., <https://dof.princeton.edu/policies-procedure/policies/open-access> (last visited Aug. 20, 2019) (policy only grants the university a nonexclusive license in the article as long as the article is not sold for a profit).

194. Employers often include language in their employment contracts whereby an employee “agree[s] to assign or confirm in writing to [the employer] that right, title and interest in . . . such inventions as required by Contracts or Grants.” In patent cases, the Federal Circuit has held that “agree to assign” language is an agreement to assign and not a present agreement. *IpVenture, Inc. v. Prostar Comput., Inc.*, 503 F.3d 1324, 1327 (Fed. Cir. 2007); *cf.* *FilmTec Corp. v. Hydranautics*, 982 F.2d 1546, 1554 (Fed. Cir. 1992) (finding the phrase “does hereby grant” in employment agreement a present assignment); *Speedplay, Inc. v. Bebop, Inc.*, 211 F.3d 1245, 1253 (Fed. Cir. 2000) (finding “hereby conveys, transfers and assigns” phrase was a present assignment). Similarly, universities should use present assignment/grant language in their Open Access Policies.

195. 17 U.S.C. § 204(a).

196. For a complete analysis of university OAPs, see generally Eric Priest, *Copyright and the Harvard Open Access Mandate*, 10 *Nw. J. TECH. & INTELL. PROP.* 377 (2012).

197. *Intro to Digital Repositories*, U. WIS.-MADISON LIBR.: RESEARCH GUIDES, <https://researchguides.library.wisc.edu/c.php?g=177944&p=1169874> (last visited Apr. 1, 2019).

198. *Id.*

With the exception of two universities, almost every surveyed university provided, through their libraries, an OA repository for university authors.<sup>199</sup> When provided, these OA repositories allow authors to “mak[e] their articles widely and freely available.”<sup>200</sup> The increasing popularity of OA repositories is not limited only to this Note’s investigated universities, but is a widespread global trend with over 4,000 academic OA repositories existing currently.<sup>201</sup>

While these repositories allow the public to view peer-reviewed articles freely, it is often a delayed access, because articles are being subject to the embargo periods described in Section III. A further limitation on this avenue is that it requires an action by the author.<sup>202</sup> Authors are responsible for depositing their articles, in adherence with their publishing agreement, to the repository.<sup>203</sup> Given the busy schedule of many authors, this deposit to their university repository may or may not happen, which leaves a public access gap.<sup>204</sup> Further, locating the appropriate institutional repositories may be beyond the savvy of public users. When faced with a pay-wall or other barrier to access for a research article, a user may not know to look up the researcher’s institutional affiliation to search for the article on that specific institution’s OA repository.

### 3. Author Addendums

While authors may retain the right to deposit the accepted manuscript version to their institution OA repository through OAPs, as explained above, these OAPs only retain rights for the university.<sup>205</sup> Thus, if authors wish to retain some of

199. After examining the open access or scholarly publication websites for the top 20 research institutes in the United States, only two universities, University of Notre Dame and Yale, lacked a digital repository for faculty work. See REGISTRY OF OPEN ACCESS REPOSITORY MANDATES AND POLICIES, *supra* note 171 (when on the registry website, one can filter results by country; and after filtering results to view U.S. institutions, both University of Notre Dame and Yale University were absent from the list while the other top 20 research institutions were present).

200. UNIVERSITY OF CALIFORNIA, POLICY OPEN ACCESS 4, [https://osc.universityofcalifornia.edu/wp-content/uploads/2015/11/UC-AP-15-0275\\_Open-Access.pdf](https://osc.universityofcalifornia.edu/wp-content/uploads/2015/11/UC-AP-15-0275_Open-Access.pdf) (last visited Oct. 20, 2018).

201. See *OpenDOAR Statistics*, Jisc, [http://v2.sherpa.ac.uk/view/repository\\_visualisations/1.html](http://v2.sherpa.ac.uk/view/repository_visualisations/1.html) (last visited Oct. 20, 2018) (there were 3,779 repositories in directory as of October 2018). OpenDOAR is a global directory of academic OA repositories, which excludes from its directory sites that are repeatedly inaccessible; are an ejournal; contain no open access materials; contain metadata references only or links to external sites; actually are library catalogues or collections of locally accessible e-books; require login to access any material (gated access); is a proprietary database or journal that requires a subscription to access. *About OpenDOAR*, Jisc, <https://v2.sherpa.ac.uk/opendoar/information.html> (last visited July 19, 2019).

202. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

203. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

204. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

205. *Infra* Section V.B.1.a.

their inherent copyright ownership over the individual article, as argued above in Part III, they must choose a different avenue. This different avenue is an Author Addendum, which is different from a university OAP addendum.<sup>206</sup> While the Author Addendums and OAP addendums are submitted to the publisher in the same way, they differ in substance.<sup>207</sup> Several author addendums provided by the Scholarly Publishing and Academic Resource Coalition (“SPARC”) organization are discussed below.<sup>208</sup>

The SPARC organization members come primarily from academic and research libraries with a goal of enabling open sharing of research.<sup>209</sup> This open sharing, as described in Section V.A. of this Note, helps “democratize access to knowledge, accelerate discovery, and increase the return on [] investment in research and education.”<sup>210</sup> One of the ways they enable this sharing is through the legal instruments they provide, in partnership with Creative Commons’s Science Commons project, to authors in the form of the SPARC Author Addendum.

The default SPARC Author Addendum retains the most robust set of rights for the author; however, for reasons explained below, this default addendum may not fit with the author’s needs or comfort level. SPARC links authors with the Science Commons addendum generator to provide authors with customization options, and is also discussed below.<sup>211</sup>

#### a. SPARC Author Addendum

Like all addendums discussed in this Note, the addendum and the publishing agreement are taken together to “allocate all rights under copyright with respect to all versions of the Article.”<sup>212</sup> Under the SPARC Author Addendum, the author *retains*: (1) the right to reproduce, distribute, publicly perform, and publicly display the article for noncommercial purposes; (2) the right to prepare derivative works from the article; and (3) the right to authorize others to make noncommercial use of the article so long as the author is credited as the author and the journal is

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206. *Infra* Section V.B.3.

207. Authors are asked to sign the publisher’s Publishing Agreement, inserting below the signature “Subject to attached Addendum” and submit both the modified Publishing Agreement and the chosen Author Addendum (or institution’s OAP author addendum) to the publisher. *See, e.g., Scholar’s Copyright Addendum Engine*, CREATIVE COMMONS, <https://labs.creativecommons.org/scholars/> (last visited Feb. 10, 2019); *Addendum to Publication Agreement*, *supra* note 180.

208. *Who We Are*, SPARC, <https://sparcopen.org/who-we-are/> (last visited Feb. 10, 2019).

209. *Id.*

210. *Id.*

211. *See Author Rights & the SPARC Author Addendum*, SPARC, <https://sparcopen.org/our-work/author-rights/> (last visited Feb. 10, 2019); *Scholar’s Copyright Addendum Engine*, *supra* note 207.

212. *SPARC Author Addendum to Publishing Agreement*, SPARC, <https://sparcopen.org/our-work/author-rights/sparc-author-addendum-text/> (last visited Feb. 10, 2019) [hereinafter *SPARC Author Addendum*].

cited as the source of the publication.<sup>213</sup> Further, the SPARC Author Addendum acknowledges prior nonexclusive licenses granted to the author's institution, via their institution OAP license.<sup>214</sup>

It is important to note that there is no manuscript-version limiting language in the SPARC Author Addendum,<sup>215</sup> rather these author rights would apply to *all* versions of the article, including the preprint, accepted manuscript, and published journal article versions. Further, of all the copyrights provided for under Section 106 of the Copyright Act, the only right excluded under this SPARC Author Addendum is the right "to distribute copies . . . of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending."<sup>216</sup> Thus, under this agreement, an author retains almost all of his or her individual article copyright, with the noncommercial use limitation being the only excluded use.

As discussed above in Part III, this Note's copyright analysis would support authors retaining individual article copyright for all versions of the published article. However, though the individual article copyright is their due, some authors may feel that the SPARC Author Addendum asks for too much from the publisher.<sup>217</sup> Under the SPARC Author Addendum the publisher goes from having all copyrights to the individual article to having almost no exclusive rights. This Note maintains that publishers should have full copyrights to the collective work, but publishers are used to gaining full copyrights to both the collective work and the individual article.<sup>218</sup> Accordingly, there is a concern that publishers will not accept the SPARC Author Addendum terms and will choose not to publish the article. This of course results in wasted time for everyone involved, and authors may be forced to go through the peer-review process all over again with a different journal.

#### b. Science Commons Author Addendum

If the author still wishes to distribute their work, but fears that the default SPARC Author Addendum goes too far, the author instead can customize the author agreement through Science Commons.<sup>219</sup> Science Commons coordinates with SPARC to provide authors with a customizable author agreement on their Scholar's Copyright Addendum Engine.<sup>220</sup> There, the author can select the "Access-Reuse" option, the "Immediate Access" option, or the "Delayed Access" option.<sup>221</sup> The

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213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.*; see also 17 U.S.C. § 106.

217. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

218. Interview with Dr. Kurt Sundell, *supra* note 36; Interview with Dr. Paige Scalf, *supra* note 36; Interview with Dr. Marvin Slepian, *supra* note 44.

219. *Scholar's Copyright Addendum Engine*, *supra* note 207.

220. *Id.*; *Author Rights & the SPARC Author Addendum*, *supra* note 211.

221. *Scholar's Copyright Addendum Engine*, *supra* note 207.

Access-Reuse version terms are identical to the default SPARC Author Addendum discussed above.<sup>222</sup>

The Immediate Access<sup>223</sup> and Delayed Access<sup>224</sup> options do not contain copyright retention language; rather, the author retains a nonexclusive right to prepare derivative works, reproduce and distribute, and publicly perform or display the article, as long as this use is “in connection with Author’s teaching, conference presentations, lectures, other scholarly works, and professional activities.”<sup>225</sup> Further, under the Immediate Access option, the author can immediately distribute any version of the article, including the published journal version, to a free, publicly available web server, as long as the publisher is cited. Conversely, the Delayed Access version only secures an immediate, nonexclusive right to distribute the author’s article to public sites for the accepted manuscript version of the article, while distribution of the published journal article version occurs after a six-month embargo period.<sup>226</sup> Similar to the SPARC agreement, all three of the Science Commons agreements acknowledge prior nonexclusive licenses granted to the author’s institution.<sup>227</sup>

### CONCLUSION

Though scientists cannot (yet) turn back time to retain their author copyright, this Note advocates for future practices that can prevent lawsuits like the one brought against ResearchGate. Authors strive for their research to be widely viewed and shared. Accordingly, any site that furthers that effort, such as ResearchGate, should be applauded and advanced. And while authors cannot reverse the previous transfer of their individual article copyright, they can use the avenues discussed here to retain their right to share their work in the future.

Through their work, scientists gain funding for their research, translate their research into valuable articles, and edit fellow scientists’ articles during the peer-review process with the goal of advancing and spreading new scientific knowledge. The public benefits enormously from science, and with the rise of the internet, should similarly benefit from its greater dissemination. Though the individual article copyright should belong to the scientist, enabling them to share

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222. See *SPARC Author Addendum*, *supra* note 212; see also *Access-Reuse Addendum to Publication Agreement*, SCI. COMMONS, <https://labs.creativecommons.org/scholars/> (last visited Feb. 11, 2019) (the Science Commons website allows users to interactively select the desired addendum from the same website) [hereinafter *Access-Reuse Author Addendum*].

223. *Immediate Access Addendum to Publication Agreement*, CREATIVE COMMONS, <https://labs.creativecommons.org/scholars/> (last visited Feb. 11, 2019) [hereinafter *Immediate Access Author Addendum*].

224. *Delayed Access Addendum to Publication Agreement*, CREATIVE COMMONS, <https://labs.creativecommons.org/scholars/> (last visited Feb. 11, 2019) [hereinafter *Delayed Access Author Addendum*].

225. *Immediate Access Author Addendum*, *supra* note 223; *Delayed Access Author Addendum*, *supra* note 224.

226. *Delayed Access Author Addendum*, *supra* note 224.

227. Compare *SPARC Author Addendum*, *supra* note 212, with *Access-Reuse Author Addendum*, *supra* note 222, and *Immediate Access Author Addendum*, *supra* note 223, and *Delayed Access Author Addendum*, *supra* note 224.

how they best see fit, we know that this copyright is often lost via publishing agreements to the publishers. This loss of article copyright enables publishers like Elsevier to bring suit against those who would share this knowledge.

But all is not lost. If scientists can recognize the firm copyright footing they stand on and retain their article copyright through either publishing in open access journals, depositing their articles to a digital repository via their institution's OAP, or utilizing Author Addendums, they can increase the public access to research.

These different open-access avenues provide different end results, with Author Addendums retaining the greatest number of rights for authors. OAP may retain rights for the university, but they do not retain rights for the author, and accordingly would not prevent lawsuits such as the one against ResearchGate. However, Author Addendums provide a range of author right retention which can be customized to fit the author's needs and comfort level. Accordingly, this Note suggests authors utilize the Author Addendums provided by Science Commons to best preserve their sharing rights in the future.

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