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Special Articles: Commentary

Challenges to Michael Eisen's bid for US Senate seat in 2018

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Abstract

Dr. Michael Eisen, a prominent molecular biologist at UC Berkeley, announced on January 25, 2017 that he would run for the US Senate in California in November, 2018. That announcement was made via Twitter. That marks a possible new and refreshing trend of scientists turning to politics. Eisen, a co-founder of the open access portal, Public Library of Science, is openly critical of the copyright establishment, which still dominates biomedical and humanities publishing. Another Tweet by Eisen basically encouraged the direct use of Sci-Hub, a pirate site that captures millions of copyrighted texts of multiple publishers, and makes those texts freely available to the public, i.e., black or pirate open access. This paper examines the intersection between science, information, copyright, social media and morals, and questions whether the public encouragement of copyright infringement, compounded by prolific profanity, serves as the best model role as a public servant for prospective politicians. This paper also examines if bad language and slang – as are frequently used by Eisen – represent the best moral example for voters, and if they increase or decrease trust in political candidates. The intersection between science and politics needs greater debate.

Keywords: California Senate, copyright, honesty, information, negative links and views, pirate network, politics, profanity, science, trust.

The value of information in the copyright age

Information is an extremely precious commodity within the public domain because it is based on intellect and knowledge, and the dialogue surrounding what constitutes valid, useful or relevant science is a matter of understanding between scientists, policymakers and public citizens (Penders, 2017). For these reasons, scientific information, including published works, continues to be highly copyrighted, and the control of copyright empowers publishers or other entities that hold it. Powerful publishers that have been able to successfully accumulate copyright over decades, even centuries, hold strong positions in society, thus controlling the rights to scientific information, and its dissemination, is synonymous with societal and political power (Teixeira da Silva, 2011). This ability to hold intellectual power through copyright, with the subsequent commercialization of

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the rights to access that information, has led to the establishment of a highly profitable publishing oligopoly (Larivière et al., 2015). Global academic copyright is continually challenged or threatened, even as the industry transitions towards a state of complete open access (OA).

Sci-Hub's affront to global academic copyright holders

The battle against the rights to copyright by publishing giants reached an important turning point with the rise of Sci-Hub, a pirate academic site created and curated by a Kazakh student, Alexandra Elbakyan, that has captured at least 62 million (Greshake, 2017) copyrighted documents from the sciences and humanities from a wide range of publishers, making those documents freely available to the public*. The fight against Sci-Hub, especially by the poweful publishing industry and its lobbyists, has been intense[†]. For example, Elsevier won \$15 million in damages caused by copyright infringement caused by Sci-Hub and LibGen (Schiermeier, 2017). However, all of this publicity may be having an opposite reaction: instead of effectively silencing Sci-Hub, it may in fact, through publicity, be promoting it, i.e., a Streisand effect. What was surprising to learn was the wide range of individuals or entities, including academic institutes, basically "everyone", in developed and developing countries, that were downloading files from Sci-Hub (Bohannon, 2016).

Sci-Hub is one initiative that is "likely to facilitate the evolution of near-universal Green OA" (James, 2016), serving thus as a direct threat to the copyright industry that still dominates a large portion of the biomedical publishing industry. The existence of black or pirate OA sites such as Sci-Hub, despite their lack of sustainability, is that they could make the function of librarians redundant (Gardner et al., 2017). Gardner's promotion of Sci-Hub as an act of civil disobedience riled the Association of American Publishers[‡]. The issue of civil disobedience, and conflating the moral value of making information free versus the legal aspect of promoting copyrighted material illicitly, within the context of Sci-Hub, becomes relevant for the ensuing discussion.

The increasing politicization of STEM scientists

Science and politics are deeply criss-crossed, for political and economic reasons, with some claiming that science is political[§] while others believing that it is not**, the former reflecting a stream of thought related to the March for Science held globally in April, 2017. What is not that common, however, is to see scientists moving into mainstream politics, although, at least in the USA, this is changing, with action groups such as 314 Action** supporting and promoting the politicization of scientists or, more accurately of Democratic scientists only, i.e., the politicization of scientists, and science, technology, engineering, and mathematics (STEM), is politically driven. Politically advocating scientists have high perceived credibility within society (Kotcher et al., 2017), as confirmed by results of a Pew Research Center poll held in 2016, at least in the US**, a feature that will undoubtedly be increasingly exploited as STEM and politics become more intertwined. However, Donner (2017) reminds us that "with the power to influence public debate comes the responsibility to carefully consider the impact of statements and actions."

Introducing a politically ambitious scientist, Michael Eisen

On his blog^{§§}, Michael Eisen describes himself as "a biologist at UC Berkeley and an Investigator of the Howard Hughes Medical Institute". Eisen is not shy from sharing his ideas openly regarding the publishing industry and other political issues that affect science, and he is

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^{*} https://en.wikipedia.org/wiki/Sci-Hub

[†] https://scholarlykitchen.sspnet.org/tag/sci-hub/

 $^{^*} http://lj.libraryjournal.com/2016/08/copyright/sci-hub-controversy-triggers-publishers-critique-of-librarian/\#$

https://www.theverge.com/2017/1/19/14258474/trump-inauguration-science-politics-climate-change-vaccines

^{**} https://www.psychologytoday.com/blog/mental-mishaps/201703/science-is-not-political

^{††} http://www.314action.org/home

^{**} http://www.pewresearch.org/fact-tank/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/

^{§§} http://www.michaeleisen.org/blog/

passionately defensive of the OA movement while being openly critical of the copyright industry and the current oligopolic publishing establishment, as his blog documents. Several of his ideas are provocative, but valid, and worth reading. Thus, it can be argued that Eisen has a pro-science agenda and is determined at science's fortification through politically-motivated protection.

For example, on his blog, in February of 2017, Eisen claimed that patents – the immediate cousin to copyright in terms of their closed nature – "are destroying the soul of science", in December of 2016, he openly called for the replacement of the National Institutes of Health (NIH) Director, Francis Collins, in June of 2016, he claimed that *JAMA*, the *Journal of the American Medical Association*, is "routinely stealing content from American citizens", or in May of 2016, he accused Elsevier, one of the oligopolic publishers discussed above, of "tricking authors into surrendering their rights." Eisen is not one to shy from controversy surrounding either science, or politics, and he is an avid defender of open access information, having been one of the cofounders of the Public Library of Science (PLOS)*, a stable of OA journals, whose star mega-journal *PLOS ONE*, was dethroned in early 2017 as the world's largest OA mega-journal[†]. One can thus argue that Eisen is deeply involved and invested, both personally and professionally, in the definitive implementation of OA, and not copyright, as the future sustainable research and publishing model for biomedical science. Curiously, Eisen is not one of the candidates endorsed by 314 Action*.

On January 25, 2017, Eisen announced, via Twitter[§], that in 2018 he would be running for the U.S. Senate from California (Fig. 1A) (Reardon, 2017). The US Senate elections will be held in November of 2018 and senators will hold six-year terms, starting in 2019**, thereby overlapping with the pivoting moment in OA's history in STEM publishing, in the form of Horizon 2020, which is self-described as "the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) - in addition to the private investment that this money will attract"†. Unknown to many, and somewhat ironically, several of the organizations of the European Commission that have been commissioned to assess the economic viability of the OA model for STEM publishing are precisely some of the world's largest copyright holders. So, an academically pro-OA Eisen that pits itself against a commercially pro-OA conglomerate of powerful invested publishing interests, even if on different sides of the Atlantic, may be in global academics' interest, precisely because only through increased political power might authors and STEM-based academics begin to gather power of influence in policy. Eisen is thus an important public figure. According to Eisen's Wikipedia page, his campaign slogan is "Liberty, Equality, Reality", much in line with his views favoring OA information and his fairly strong anti-publishing establishment stance. His announcement received wide praise, from both the scientific and political spectra. In 2016, Johnston^{§§} argued in favor of scientists becoming politicians by claiming that they possess the following qualities: vision, the love of structure, systems-based thinking, and partnership. So, Eisen's turn in career from geneticist and OA activist to politics may be the start of a new global trend of the politicization of scientists, which would not be unusual given that science globally is heavily politicized***.

^{*} https://en.wikipedia.org/wiki/Michael Eisen

[†] https://scholarlykitchen.sspnet.org/2017/04/06/scientific-reports-overtakes-plos-one-as-largest-megajournal/

^{*} http://www.314action.org/endorsed-candidates/

[§] https://twitter.com/SenatorPhD/status/8243219764 344

^{**} https://ballotpedia.org/United_States_Senate_elections,_2018

^{††} https://ec.europa.eu/programmes/horizon2020/

^{**} https://blog.frontiersin.org/2017/10/05/frontiers-participating-in-european-commission-expert-group/

^{§§} http://www.smh.com.au/comment/we-need-to-see-more-scientists-take-the-leap-into-politics-20161017-gs3u5z.html

^{***} https://www.nytimes.com/2017/02/06/science/donald-trump-scientists-politics.html

Sci-Hub: Eisen's Achilles' heel 1, or popularity platform?

A Tweet by Eisen, however, on March 2, 2017*, may represent a serious stumbling block, and a possible fatal blow, to his rapid popular rise to that claim to the California Senate seat, for one simple reason: he actively promoted a pirate black OA website in public, Sci-Hub (Fig. 1B). The article he was referring to is by Jamali (2017), published in a journal by Springer Nature – also an oligopolic publisher – Scientometrics, that discusses copyright infringement on ResearchGate. In his paper, Jamali claims much copyrighted material is on display, in public, on ResearchGate. Just a few months later, in October of 2017, the Coalition for Responsible Sharing, made up of several of the oligopolic publishers, and including Elsevier and the American Chemical Society (ACS), who had taken Sci-Hub to court, initiated take-down notices for 100,000 papers they claimed were in violation of their copyright but that had been posted as OA on ResearchGate, and, according to The Scholarly Kitchen (TSK), which is the blog for The Society for Scholarly Publishing, filed a lawsuit in Germany against ResearchGate[†]. A few days later, ResearchGate capitulated to their demands[†], although it is still possible to find ample copyrighted papers in OA format on ResearchGate, leading Elsevier and the ACS to continue pursuing legal action§. Thus, the battle of copyright versus OA in STEM publishing has taken center stage, and is one of the prime issues of our time in academic publishing. This coupled with black or pirate OA, in the form of wildly successful sites such as Sci-Hub, makes Eisen's message all the more important.

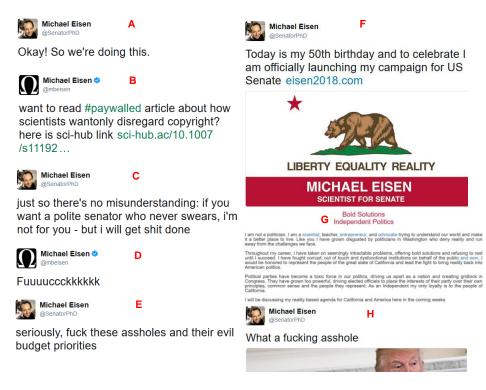


Fig. 1. Eisen's Tweets and post

Notes: Fig. 1. Michael Eisen is a biologist seeking a US Senate seat in California in 2018. His decision was announced by Twitter on January 25, 2017 (A). Using his personal Twitter account, Eisen called publicly to promote the use of the OA pirate website, Sci-Hub (B). Three

^{* (}https://twitter.com/mbeisen/status/837305142122696704 ("want to read #paywalled article about how scientists wantonly disregard copyright? here is sci-hub link http://sci-hub.ac/10.1007/s11192-017-2291-4...")

[†] https://scholarlykitchen.sspnet.org/2017/10/06/researchgate-publishers-take-formal-steps-force-copyright-compliance/

^{*} https://www.insidehighered.com/news/2017/10/11/researchgate-bows-publisher-pressure-and-removes-some-papers

[§] http://www.responsiblesharing.org/2018-04-18-acs-and-elsevier-ask-court-to-clarify-researchgates-copyright-responsibility/

examples of what appears to be a systemic use of slang and profanity to describe what could be easily described using more politically sensitive language (C-E). Eisen has an anti-government posture (F-H), and is particularly critical of President Donald Trump (H). Sources:

- (A) https://twitter.com/SenatorPhD/status/824321976403513344
- (B) https://twitter.com/mbeisen/status/837305142122696704
- (C) https://twitter.com/SenatorPhD/status/842593032809590784
- (D) https://twitter.com/mbeisen/status/844307474152775681
- (E) https://twitter.com/SenatorPhD/status/842545530269908992
- (F) https://twitter.com/SenatorPhD/status/852562408316874752
- (G) http://www.eisen2018.com/
- (H) https://twitter.com/SenatorPhD/status/836687111403155457

Tweet dates: (A) January 25, 2017; (B) March 2, 2017; (C) March 16, 2017; (D) March 21, 2017; (E) March 16, 2017; (F) April 13, 2017; (H) February 28, 2017.

On the same day as that Tweet (i.e., March 2, 2017), I contacted Phil Davis, of TSK, who is the same author of the breaking *PLOS ONE* story, and a strong critic of copyright infringement by Sci-Hub (Davis, 2017), for his opinion. Although he declined to offer formal comment for this paper, he did promise to send out a Tweet about this issue, in response to my request, which he did so on March 6, 2017*. On the same day, Eisen responded on Twitter[†]. It is not clear if promoting Sci-Hub's affront to copyright holders is the best strategy to dealing with the state of copyrighted knowledge held by these oligopolic publishers. This issue has suddenly taken center stage in 2018, with the newly elected President of the International Publishers Association, Michiel Kolman, of Elsevier, having been elected to this position on January 1, 2017[‡], formally declaring battle against pirate OA sites like Sci-Hub in January 2018 at APE (Academic Publishing in Europe) 2018[§]. The copyright versus black OA battle lines have thus been set, and it is within this context that Eisen's rise to political ambition, pro-Sci-Hub and anti-Elsevier, becomes such an important discussion.

If one day Eisen were to ever clinch the California Senate seat, these Tweets could result in his political downfall because they could be interpreted as a direct support for information piracy and of anti-copyright sites like Sci-Hub, which has been subjected to litigation by Elsevier**. Apart from the legal aspect of downloading copyrighted material from Sci-Hub, which Davis (2017) comments as "no level of illegal downloading is acceptable", it would be difficult for Eisen to argue a morally defensible position, given his own economically superior position, both personally, and in terms of institutional grants and positions.

Slang: Eisen's Achilles' heel 2

It certainly also does not help Eisen's cause and political ambitions to use profanity to explain formal positions, language that the public would not associate with senatorial behavior (Fig. 1C). Eisen would probably need to appreciate that some potential voters might be sensitive to such issues, especially his Tweets which John Cohen at *Science* described, in an interview with Eisen on January 27, 2017, as "Eisen's frequent tweets often sizzle". In fact, what Cohen was likely referring to, very euphemistically, was the considerable amount of slang and profanity that Eisen uses to express his messages (Fig. 1C-E), when, in fact, simple – and clean and respectful – English could be equally effective in transmitting those ideas. A future political constituency might be more

^{*} https://twitter.com/ScholarlyChickn/status/838777788589084672 ("Why is US Senate hopeful @mbeisen promoting SciHub?")

[†] https://twitter.com/SenatorPhD/status/838810943907717120 ("because it's criminal that 25 years into the Internet Age the vast majority of scientific knowledge is locked behind paywalls.")

^{*} https://www.internationalpublishers.org/about-ipa/governance/president-vice-president

https://publishing perspectives.com/2018/01/ipa-chief-slams-scihub-argues-for-unity-against-scihub-piracy/

^{**} http://www.litigationandtrial.com/2016/02/articles/attorney/elsevier-vs-sci-hub/

^{††} https://twitter.com/SenatorPhD/status/842593032809590784 ("just so there's no misunderstanding: if you want a polite senator who never swears, i'm not for you - but i will get shit done.")

^{**} http://www.sciencemag.org/news/2017/01/qa-michael-eisen-wants-be-first-evolutionary-biologist-ussenate

appreciative of a senator that is able to articulate ideas about important issues without having to rely on slang to do so. In a tight senatorial race, it might only be a small difference in the number of votes, or between happy and unsatisfied voters, that differentiates victory from defeat. These concerns have now become real. On April 13, 2017, Eisen Tweeted "Today is my 50th birthday and to celebrate I am officially launching my campaign for US Senate http://www.eisen2018.com" (Fig. 1F), confirming his bid for the Senate seat in 2018, and receiving a large number of happy birthday Tweets and Tweets of support. It is curious to note that Eisen uses on his campaign page the Golden State (California) flag for the secessionist movement that seeks to break California away from the rest of the USA, in a movement termed CalExit*.

Finally, Eisen appears to be taking advantage of his political clout and influence to establish new policy for an increasingly politicized movement in science publishing, preprints. In early 2018, Eisen was advocating that the destiny of preprints, as part of his author-driven publishing model, would lie in the hands of a small elite group of specialists, in essence hinting at a post-publication peer review system for preprints – a non-peer-reviewed document – that is not controlled by the oligopolic publishers. As Eisen seeks to expand his political and science-based power and influence, this paper serves as a historical document and reminder that those that listen to the voice, opinion and policy of Eisen and his allies should listen carefully, and cautiously.

Discussion

This paper puts forth several descriptive and empirical suppositions: 1) Are more scientists entering politics? 2) What are the implications or effects of using Twitter in political campaigns? 3) How does encouragement of the use of pirate sites affect the public's perception of a political candidate? 4) What are the moral or legal implications of would-be politicians if they encourage the use of Sci-Hub in the copyright age? 5) Is the public's choice of a politician influenced by the use of bad language or slang? 6) How is science affected by these issues? In an attempt to try and address some of these issues, PubMed was searched in order to ascertain how widely these topics had been discussed by academia. A broad discussion follows.

The published literature does not document too many cases of scientists entering the political arena, and even though there have been public calls for scientists to enter politics (e.g., Russo, 2008), there are still not that many high-profile cases. Twitter is increasingly used in political campaigns, primarily by the younger generation (Jungherr, 2016). One reason may be continued focus on the public's engagement in science (Bensaude Vincent, 2014), but not enough focus on scientists' engagement in politics. There is also a stigma attached with scientists, a notion that they are not "appropriately" qualified to be politicians (Hsu, Agoramoorthy, 2004), even though they are as or even more qualified, than politicians (Pan, Chiang, 2004). A contemplation of the issue would show that the most appropriate individuals to hold the reigns of science policy would be scientists. Eisen seems to embrace the notion of cosmopolitics, seeking global solutions to common risks (Saito, 2015), in this case the copyright vs OA struggle. Thus, as an example, environmental policy might be best served by environmental scientists who are able to appreciate the intricacies of the issues (Monteiro, Rajão, 2017). Indeed, greater participation of scientists as part of a political structure, either as science advisors or parliamentary science officers, as was suggested for Canada, might advance their needs and aspirations by being able to influence policy, and thus funding (Jones, 2015). Health-related scientists might be better positioned to influence the outcome of health policies if they are involved in politics (Rushton, 2015). And British scientists whose funding may be affected by Brexit (Macilwain, 2017) may be better served if one or more UK scientists hold political sway.

Conclusions

This commentary highlights a crossroad of a few interesting aspects in the information sciences: the rise of a pro-OA activist and prominent biologist, Michael Eisen, to the political arena, the use of Twitter to launch that political campaign, and then the use of the same social medium to promote the direct support for a pirate OA site, Sci-Hub, that has lifted millions of copyrighted texts from the main oligopolic publishers, and others, making them freely available to "everyone".

^{*} http://www.yescalifornia.org/

[†] http://asapbio.org/eisen-appraise

Such Tweets are not censored nor is Eisen's penchant for slang, indicating that "freedom of speech" seems to hold sway, and power, over even potentially career-damaging issues. This small case also highlights that we are truly at the frontier of information science, and in a complex, but fascinating, trajectory of the history of science, information, and publishing. Phil Davis and Michael Eisen were both contacted for comment on March 7, 2017. While Davis responded, Eisen did not.

With the formal launch of the Eisen campaign on January 25, 2017, and with a website (Fig. 1G) on April 13, 2017 (Eisen's 50th birthday) seeking financial donations*, the California electorate would do well to record what has or is being said and what positions are being assumed by Eisen (examples in Fig. 1C-E; 1H) before they elect or reject him, from the US Senate. This is because donations and finacial contributions carry with them a moral and ethical weight, baggage that accompanies a senatorial position. As the struggle for science research funding deepens, the representation of scientists' needs by suitably qualified scientists, releasing them from a position of "subordination ... to politics and decision-makers" (Guzzetti, 2016), and placing them within a political position to influence policy, may begin to dominate the discussion.

Conflicts of interest

The author declares no financial conflicts of interest.

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^{*} http://www.eisen2018.com/

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