Engaged Citizenship through Campus-Level Democratic Processes: A Librarian and Graduate Student Collaboration on Open Access Policy Adoption

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INTRODUCTION While faculty votes to establish open access (OA) policies leverage one particular campus-level democratic mechanism in the name of advancing scholarly communication, other processes, including student government actions, can also play significant roles in OA policy adoption and related efforts. As early career researchers, graduate students are particularly well-poised to engage with campus-level democratic institutions in order to bring about change in scholarly communication. **DESCRIPTION OF PROGRAM** This case study details a multi-year collaboration between librarians and graduate students at the University of Colorado Boulder aimed at the development and adoption of a campus OA policy. Librarians and graduate students worked together to plan for and sustain momentum throughout the process of building formal support for the policy through student government and faculty assembly resolutions, drafting policy language, and shepherding the proposed policy through numerous meetings and committees all the way up to and including its formal adoption. This collaboration through engaged citizenship at the campus level also led to a number of unintended benefits to both librarians and graduate students involved. **NEXT STEPS AND CONCLUSIONS** Ultimately, the CU Boulder collaboration between librarians and graduate students led to significant scholarly communication achievements largely through the utilization of campus-level democratic processes. The case study concludes with a look at next steps for implementing the OA policy across campus as well as a discussion of the labor involved in such efforts, including implications for graduate student involvement in scholarly communication initiatives.

INTRODUCTION

An overwhelming majority (88%) of campus open access (OA) policies were established by a vote of a faculty governance body (Fruin et. al, 2016). Often, these votes represent just the last step in lengthy policy development and advocacy initiatives, which take a variety of forms across institutions. While faculty votes leverage one democratic mechanism available to a specific population on campus, other campus-level processes, including student government actions, can also play significant roles in OA policy adoption. These processes can only be utilized effectively when the citizens of a campus community are actively engaged with the issues at hand as well as the political systems that can bring about such change. This engaged citizenship is characterized by a grassroots nature and the formation of coalitions that strategically activate and employ more formal political entities. As early career researchers who are likely already participating in the scholarly communication landscape in many ways, graduate students are particularly well poised to utilize campus-level democratic processes in order to enable change with regard to OA and related issues. As this case study describes, librarians at the University of Colorado Boulder (CU Boulder) collaborated and strategized with graduate students over the course of several years to build a groundswell of support and a clear path forward for a faculty OA policy in part by leveraging the legislative powers of multiple student government groups. Prior to these efforts, there was little to no formal support for OA initiatives from faculty on campus; however, a fateful meeting of librarians with expertise in scholarly communication and graduate students with interest in OA and involvement in student government sparked a collaboration that culminated in CU Boulder officially adopting an OA policy on April 22, 2015. This collaboration demonstrates that the advocacy and engaged citizenship of graduate students, especially when supported by the expertise of librarians, can lead to significant change in scholarly communication policy at the campus level. This case study discusses the benefits, both anticipated and unanticipated, of librarians collaborating with graduate students on OA initiatives as well as the challenges involved in these efforts. Benefits included graduate students becoming even more effective and passionate advocates for OA by working with librarians to understand the intricacies of OA policies and how to address the myriad issues and common concerns that faculty have with these policies as well as with OA in general. Many of the challenges encountered in this case study involved implications for primarily volunteer-based and time-limited graduate student labor in the sustainability of scholarly communication efforts. This discussion could be relevant to other institutions involved in OA policy development or in any collaborations with graduate students and/or student government groups by providing examples of how to cultivate cross-campus advocacy built on common concerns as well as suggestions for how to approach the sustainability of collective and student-led efforts. This work is important to the functioning of university democratic systems because it helps to move policies and procedures forward to better reflect the values

of the next generation of governance. The case study concludes with a look at next steps for the OA policy at CU Boulder, which will involve implementing the policy across campus.

LITERATURE REVIEW

Engagement with scholarly communication issues, and open access in particular, has provided the opportunity for academic libraries to team up with various user groups on campus, including the graduate student community. With many shared values between librarians and graduate students with regard to scholarly communication, such collaborations can be an effective advent of democratic change on campus. It is important to remember in these contexts of collaboration that democracy is not just a set of institutions and legal processes, but is also a set of actions in which "demands [can] be made and negotiated as part of the process of the reform of institutions" (Holmwood, 2017, p. 930).

The graduate student population is notoriously difficult to impact through library outreach activities. Graduate students are very busy, have varied skill sets (including with regard to information literacy), and may have somewhat loose and inconsistent connections to the universities in which they work and study. Scholarly literature recording library collaborations with graduate students is fairly scant, and often focuses on initiatives to gain their trust or create innovative methods of information literacy instruction.

Baruzzi and Calcagno (2015) found this to be the case in their study of academic librarian outreach and collaboration with graduate students, which looked at past trends as well as current efforts. They found that "misunderstood, elusive, or hard to reach" are common terms that academic librarians use to describe graduate students, that research workshops and trainings were by far the most common form of contact with graduate students, and that "researcher was the most common role assumed by 57 percent of librarians who collaborated with a graduate student." That said, they also found that collaborative efforts and engaging with scholarly communication issues were among the most promising ways that librarians might plan on supporting graduate students in the future. These thus far underutilized approaches to engaging graduate students, through addressing publishing concerns and advancing shared scholarly communication goals, are exactly the kinds of endeavors addressed by this case study.

It is unsurprising that discussions about implementing an open access policy at a university often center on the concerns of faculty members. Although libraries frequently have a prominent role in advancing open access policies, and administration can be heavily involved as well, faculty have the most at stake when it comes to utilizing the democratic processes within university institutions. Faculty, after all, wield the all-important votes for

significant legislative and policy change that can alter the scholarly communication climate through institutional open access mandates (Xia et al., 2012). Despite the deep implications of policy change for faculty, reaction and engagement from this group might be described as irregular. Advocacy for, apathy about, and outrage over open access policies are all in abundance among faculty. A 2007 University of California survey found that 75% of faculty were not even aware of a policy proposal that had been forwarded by the academic senate six months prior. Some who were aware that their administration was moving forward on these policies opposed the changes because they either disagreed with or were misinformed about the compatibility of open access publishing with the tenure process (Xia et. al, 2012). Additional concerns include whether or not high-impact publishers and journals in their field will allow self-archiving of publications, how mandates affect university principles of academic freedom, and the added obligations of negotiating for author rights and uploading to the repository.

All of this means that faculty are a crucial yet tricky to manage piece of the open access policy puzzle. Buy-in must be nurtured carefully through outreach and education, and the unique circumstances and requirements of scholarship across disciplines must always be taken into account. While some of the biggest champions for the open access movement are well-established faculty, early-career professionals and graduate students are also pioneers for innovation in scholarly publishing. SPARC, a major global coalition for advancing open access, open education, and open data, even recognized the contributions of students to openness in scholarly communication by highlighting several young activists for their contributions to the movement through policy, culture, media, and technology with the Innovator Award ("Agents of Change," 2007). In addition, the Right to Research Coalition, in existence since 2009, represents student organizations around the world in defending the ideal "that no student should be denied access to the articles they need because the institution cannot afford the high cost of access" (Right to Research Coalition, n.d.).

Although faculty researchers and publishers are the most obvious stakeholders in campus open access policies, graduate students also have a strong interest in greater and more equitable access to scholarly information. As subscription costs increase along with the pressure to build one's reputation and visibility within the scholarly community, graduate students stand to reap great benefits from a more open information environment. When advocating for a policy at the University of Washington, Gebhart and Ziskina (2015) found that students were likely "to know more about the mechanics of OA and inherent issues than many faculty did." They noted that "students and early-career researchers were worried about more than a citation boost, they were concerned with the terms under which they would begin their careers." The stakes, then, are clearly perceived as being higher for those scholars who are just now embarking on their careers. Problems of access can disproportionately

affect those who are not as firmly established in their field, and this can sometimes have serious ethical implications. In the *Washington Post*, Cooper and Wiley (2012) plant a flag in this issue by directly addressing the problem with access to taxpayer funded research that students might face post-graduation:

> But should that access cease at graduation? Or would you rather a graduating medical student, perhaps your future doctor, be able to keep up with the latest advances? Would you rather an ambitious graduate student feel comfortable leaving the academy to found the next Google, knowing she still has access to the latest insight in her field and is able to build upon it?

Cooper and Wiley demonstrate here how the fates of early career professionals and graduate students have the potential to affect us all, and why it is so important to support these groups with the essential tool of information itself.

Graduate student organizations and student government councils are taking matters into their own hands in some cases in order to ensure that the policies enacted on campus are more reflective of their values and needs. These groups are finding that an effective way to demonstrate support for open access is to insert their voices into on-campus conversations and legislative processes involved in negotiating and developing future university policy. Institutions where graduate students in conjunction with libraries have been involved to some degree in influencing an open access policy through democratic processes include the University of Washington, MIT, the University of Hawai'i at Manoa, and the authors' own University of Colorado Boulder. These by no means represent the only examples of graduate students and librarians working together to support the adoption or expansion of an open access policy on their campus, but they are introduced as well-recorded or exemplary instances that provide insight into how these initiatives have been undertaken on various campuses.

One course of action is for graduate student governments to push for inclusion in a faculty open access policy that is already in existence. This was the case for MIT and the University of Hawai'i at Manoa. In 2015, University of Hawai'i at Manoa PhD student Heather Frey looked to her library to help graduate students participate in the benefits of open access provided to the university's faculty when they adopted their open access policy in 2010. Two librarians, Jennifer Beamer and Sarah Lee, as well as SPARC representative Nick Shockey, provided Frey and the graduate student body with the resources and influence to get a motion passed by graduate students for their own open access policy. While this motion "encourages" self-archiving in the university's institutional repository and is not a mandate, it brings to the forefront graduate students' concern over giving away rights and access to

their own work at a time when they feel the most pressure to publish ("Graduate Students Adopt," 2015).

Similarly, MIT adopted a policy for its faculty in 2009, which is considered very successful, with 44% of faculty publications since the adoption of the policy now freely available (MIT Libraries, 2017). In 2015, PhD student Cara Manning consulted the MIT Libraries about her frustration with being unable to engage with the university's and faculty's philosophy of sharing, and asked how graduate students, staff, and other university-affiliated authors might be included in the policy in order to protect their ability to share. Manning and Ellen Finnie, Scholarly Communications and Collection Strategy Head at MIT Libraries, soon found that these questions were not straightforward since it was unclear what governance body could create a policy that covered these groups. With the help of legal counsel, however, they found that their goal could be achieved by borrowing the faculty policy language and altering it slightly so that the policy was "opt-in." This means that the authors to whom the policy applies can voluntarily choose to have the university's policies apply to them via an open access license, but they are under no obligation to do so should they choose otherwise. At MIT, this opt-in policy can be leveraged by students, postdocs, and staff (MIT Libraries, 2017).

These examples of open access activism at MIT and the University of Hawai'i at Manoa illustrate how despite strong interest, graduate students and early career professionals can sometimes be left to take matters of publishing rights into their own hands. However, they will likely find willing allies in librarians who are well placed to collaborate with interest groups across the university. At the two universities mentioned above, a successful open access policy had already been in effect for several years at the institution before graduate students endeavored to have themselves included, but what happens when graduate students are galvanized to shift the scholarly communication conversation on campus when there is not an existing faculty open access policy?

This is what occurred at the University of Washington. Gennie Gebhart, a law student, and Juliya Ziskina, an information science graduate student, thought that the public university with the most federal research funding in the nation was overdue for a policy that would allow for unhindered sharing of that scholarly output. Gebhart and Ziskina (2015) received support right away from student government, but upon drafting a policy for a group of encouraging librarians to review, they received "raised eyebrows." After this initial attempt, their focus then turned to a grassroots approach by adding the issue to the student government agenda, garnering support among that group, and then working to gain advocates among faculty through education and a strong and consistent presence at faculty council meetings. Gebhart and Ziskina (2015) credit much of their success in these initiatives to

the UW Libraries and other external stakeholders. In order to show support for these efforts, librarians "fielded technical questions, represented the UW Libraries, and lent credibility to OA ideas that many students were encountering for the first time." That said, the graduate students still received some pushback from faculty who misunderstood the source of the movement or its implications, and they noted that it was important to "avoid the perception that we are explaining faculty's jobs to them" and to communicate that "that this was a bottom-up, not top-down, coalition of students, faculty, and librarians" (Gebhart & Ziskina, 2015). The UW faculty ultimately passed a resolution in favor of an open access policy, and while not as substantial as many at the university would like, it is a clear victory for collective campus efforts in favor of openness and a demonstration of the effectiveness of framing those efforts as an exercise in grassroots coalition-building.

While quite different from the case study of the University of Colorado Boulder which will be described and discussed hereafter, each of these examples represent distinct approaches that reflect the culture and needs of the student and faculty bodies at that institution. In each example, however, democratic methods and venues were used in order to strengthen or bring forth policies that advance core principles of scholarly communication. In addition, a key characteristic of the engaged citizenship model for open access policy advocacy demonstrated in these preceding examples is its grassroots, bottom-up nature. Because many of the current goals of scholarly communication involve fundamental changes in scholarly resource distribution and sharing, it is both necessary and effective for stakeholder groups such as librarians and graduate students to take advantage of shared goals and unique expertise to bring about effective and impactful change through democratic activism and policy-making.

These goals of scholarly communication are not without their challenges. One limitation in these examples of democratic engagement through collaboration on open access policies is that they are all singular and momentary victories. The success of democratic activities depends upon sustained interest and engagement by citizens, and while librarians can be willing collaborators, graduate students are a transitory population on campus. This means that without spreading a persistent enthusiasm to other campus groups or breaking down the silos of interest that exist at universities, support for policies that seek change across the scholarly communication landscape risks ephemerality. As discussed in this case study, libraries can play a significant role in sustaining and building upon efforts that begin as primarily volunteer-based advocacy campaigns.

DESCRIPTION OF PROGRAM

In 2012, the CU Boulder Libraries formed a Scholarly Communication Working Group

(SCWG) tasked with, among other things, advocating for OA on campus. With scant initial support for formal OA initiatives from faculty across campus, members of the SCWG focused energy on forming a strategic partnership with representatives from the United Government of Graduate Students (UGGS). Several members of UGGS had developed an interest in OA through exposure to outreach by organizations like the Right to Research Coalition and SPARC, and these students approached the Libraries for information about OA support on campus. In response, members of the SCWG reached out to the students and began initial conversations about possible collaborations. As part of the student government at a large public academic institution where budgetary concerns are prevalent, UGGS members saw the increasingly exorbitant costs of journal subscriptions as an area where the campus could perhaps reduce spending, thus helping to lower financial burdens for students. Also, as graduate students who both produce and consume published research themselves, they had firsthand experience with the need for research to be available to other students like themselves as well as to the general public. SCWG members helped these students understand the economics of journal subscription costs by sharing information about the Libraries' budget, and they introduced the students to mechanisms like campus OA policies and institutional repositories that could help make research produced at CU Boulder available to anyone with an internet connection.

SCWG members were also in the early stages of planning for the first ever local slate of events for International Open Access Week, and they invited UGGS to partner with the Libraries on that effort. This partnership resulted in one OA Week event aimed specifically at graduate students, and students participated as speakers and attendees at other events as well. Based on the success of these events, UGGS members collaborated with the SCWG to draft, and ultimately pass, a graduate student government resolution in support of OA at CU Boulder that outlined several ways the campus should help make research openly available. Leveraging their regular attendance at the meetings of the Boulder Faculty Assembly (BFA), the representative faculty governance body on campus, UGGS members were able to convince the BFA to pass an OA faculty resolution as well on March 7, 2013 (CU Boulder Libraries, 2017).

Empowered by the passing of the OA resolution by both UGGS and the BFA, SCWG and UGGS members again collaborated on the planning for Open Access Week events in 2013. Featuring speakers that included one of CU Boulder's Nobel Laureates, the events received front-page coverage in the local newspaper, including an article in which both librarians and graduate students were interviewed (Kuta, 2013). The SCWG then began conversations with UGGS about a second graduate student government OA resolution, this time directly calling on the campus to develop an OA policy for faculty publications. SCWG members assisted students in UGGS with the development of this resolution, which passed unani-

mously in September 2013. The resolution was also introduced as legislation to the University of Colorado Student Government (the larger campus student government body), where it passed as well.

During the process of developing this second resolution, SCWG and UGGS members agreed that if and when it passed, the Libraries faculty would attempt to pass a unit-level OA policy as a show of support for the student government and as a test case for a campus-wide faculty policy. The SCWG drafted language for the Libraries' faculty policy, which was passed on October 3, 2013 (CU Boulder Libraries, 2017). The policy was presented as a way to respond to the voice of the students, an argument that seemed to carry significant weight with the Libraries faculty. Members of the SCWG then worked with the dean and associate dean of the Libraries to ensure policy language cleared legal review by University Counsel before bringing it to campus leadership to discuss next steps for a campus-wide policy.

In consultation with campus leadership, librarians and graduate students brought the Libraries' OA policy to the BFA, again utilizing the existing relationship between UGGS and the BFA as an opportunity to formally introduce the campus-wide faculty policy. After a series of meetings with various BFA committees as well as open information sessions on the proposed OA policy (cohosted by the Office of Faculty Affairs and the Libraries), the policy was presented to the general BFA for a formal vote. Throughout this process of shepherding the proposed policy through various faculty committees, it was often a successful communication strategy to have graduate student government representatives introduce the policy as the logical extension of student government resolutions in favor of OA and representing the will of the student body. Librarians supported these graduate students by developing fact sheets on OA policies that addressed common misconceptions about such policies as well as OA in general. This allowed the argument that students were demanding faculty action on OA to remain front and center while still addressing more technical issues and concerns regarding the proposed policy. Librarians were also on hand to deliver information and answer questions about the policy at the final faculty assembly vote, and UGGS graduate student representatives attended in solidarity as well. The BFA ultimately passed the campus-wide faculty OA policy on October 2, 2014, and it became official campus administrative policy on April 22, 2015 after approval by the chancellor (CU Boulder, 2015).

The librarian and graduate student collaboration on the campus OA policy also had additional impact in the areas of open science and transparent research. Two graduate students from the Department of Psychology and Neuroscience and a librarian, all of whom were heavily involved in the OA policy process, began discussing how a continued partnership could extend to other related areas of scholarly communication. At the time, the graduate

students were deeply engaged in conversations about reproducible and transparent research practices within their discipline, so the focus of the collaboration naturally turned to those areas. The group decided that it would be valuable to form an Open Science Interest Group (OSIG) that any student across campus could join to discuss how openness can benefit science by, among other things, enabling reproducible and transparent research. The graduate students initiated the process of forming an official student group with the librarian serving as the requisite faculty advisor, and this status was granted in 2015. Formal student group status allowed OSIG to reserve rooms on campus and request funds for events and other similar purposes. Since 2015, OSIG has hosted several events on reproducible research, and one of the founding members also wrote a resolution on transparent research practices, which was passed by the student government on April 21, 2016. Among other recommendations, the resolution called for data supporting published articles to be deposited in openly accessible repositories. As with the work toward the campus OA policy, the local newspaper took an interest in the calls for transparent research practices at CU Boulder, and it published an article exploring the issue, which featured graduate student voices prominently (Kuta, 2016). Again, graduate student activism via a student government resolution along with a librarian and graduate student collaboration (OSIG) helped push campus conversations beyond access to the scholarly literature and toward changes to scholarly communication that could enable additional benefits to research like increased reproducibility and open data.

Lessons Learned

In the absence of faculty champions or any groundswell of support from faculty for OA on campus, the importance of the librarian and graduate student collaborations behind the successful OA policy process at CU Boulder cannot be overstated. From the start, librarians and graduate students worked together to plan and then sustain momentum throughout the multiyear endeavor of building formal support for OA through UGGS and BFA resolutions, drafting the OA policy language, and shepherding the policy through numerous meetings and committees all the way up to its formal adoption. The unique combination of librarian expertise with OA policies and related issues (e.g., copyright) coupled with graduate student engagement with campus governance bodies, in addition to passionate advocacy by both groups for lowering the costs of scholarly communication and increasing access to research, proved to be an effective model for OA policy development and adoption.

As the CU Boulder case demonstrates, graduate students can have a powerful voice in scholarly communication policy-related initiatives, even when policies apply exclusively to faculty. Having access to student government legislative mechanisms can help amplify this voice and build a foundation, through formal resolutions, for policies that can be fur-

ther developed and adopted by faculty governing bodies. As noted, on several occasions throughout the CU Boulder campus OA policy process, the argument that the student body formally supported OA seemed to resonate positively with faculty and administrators in a way that more technical talking points in support of the policy did not. The grassroots model that represents a commitment by engaged citizens of the campus rather than a decree by governing bodies lent legitimacy to the case for policy change that may not have significantly materialized otherwise. Graduate students who were already involved with campus democratic processes via student government work became more effective advocates for change with regard to scholarly communication on campus by collaborating with librarians to understand the inner workings of OA policies and how to address many faculty concerns related to OA in general.

There were also a number of unanticipated benefits of the librarian and graduate student collaboration on the campus OA policy. Because of the connections made during this collaboration, the Libraries were given a prominent slot during the UGGS graduate student orientation for a number of years during and after the OA policy process. This orientation provided a forum for the Libraries to reach hundreds of incoming graduate students each year to let them know about library services and support that might benefit their academic and professional careers. As noted in the literature review, graduate students can be a difficult group to reach through library outreach, so this opportunity was of great value to the Libraries. Similarly, even in the years following the adoption of the OA policy, the graduate students involved in that collaboration were always willing to send Libraries event announcements and other news relevant to graduate students to listservs and other communication channels to which they had access.

The Libraries were also able to help sponsor two graduate students involved in the OA policy collaboration to travel to OpenCon, which they would not have been able to attend otherwise. Upon returning from the conference, the graduate students gave a presentation sharing what they learned with attendees from the Libraries. During this presentation, they remarked that OpenCon had been one of the best conferences they had ever attended, and it provided them with a platform to reach policymakers at the federal level regarding OA and related issues. This additional support for these graduate students to further enmesh themselves in the broader scholarly communication advocacy community drives home perhaps the most significant unanticipated benefit of the OA policy collaboration. Through their engagement with the campus OA policy process and all of the related efforts that followed, these graduate students became even more passionate and knowledgeable advocates for actively improving how research is conducted and communicated than they were when they first began working with the Libraries. These graduate students spent significant time discussing the intricacies of OA policies and OA in general with librarians who had existing

expertise in these areas. Notably, the graduate students were then able to put this knowledge into practice via the democratic processes they engaged with during the campus OA policy collaboration. They used this knowledge to inform the student government resolutions they wrote as well as to address faculty concerns in meetings related to the proposed faculty OA policy. With this experience and expertise, these graduate students are now prepared to continue to advocate for OA and related issues as they move into the next phase of their careers. While difficult to quantify, helping to foster agents of change and engaged scholarly citizens among the next generation of faculty researchers seems to be a quite impactful effect of librarian and graduate student collaborations.

While there were numerous benefits, both intended and unanticipated, as a result of collaborating with graduate students on OA policy development and adoption, there were significant challenges as well. First and foremost, graduate students have incredibly busy schedules, so it is difficult to say how scalable collaborations like this could be to other institutions. There is an element of sheer luck involved with identifying passionate graduate students who are willing to devote a significant amount of time and effort to promoting a culture of openness in scholarly communication; however, as the CU Boulder case demonstrates, librarians can help to stoke this passion as well. Second, for any collaborations that require multiple years to complete or that are intended to exist indefinitely, sustainability is a major challenge, since graduate students are not permanent members of the campus community. In the case of the CU Boulder OA policy, it was fortunate that the graduate students involved did not complete their degrees before the process concluded. On the other hand, OSIG, which is intended to be an ongoing campus student group, will be difficult to sustain once the current graduate student leaders depart. Both of these challenges speak to the sometimes ephemeral and precarious nature of the labor involved with instigating change in the scholarly communication landscape. With heavy workloads, relatively temporary statuses at institutions, and often uncertain career paths, asking graduate students to shoulder the burden of OA advocacy raises significant questions about how and by whom this work should be done. This points to the need for structures that can not only support graduate students in these efforts but also continuously bring new students into the fold. As this case study illustrates, libraries are well suited to serve both of these roles. With the recent addition of several new positions related to scholarly communication, the CU Boulder Libraries will be able to provide greater formal institutional support for OA policy implementation, outreach to graduate students, and continued advocacy for OA on campus. At institutions where additional resources are not available or not an option, efforts and expertise may be more widely dispersed but can still be channeled through the creation of a working group or task force. As the discussion of the benefits to the graduate students involved in this collaboration suggests, there are also ways that libraries can show appreciation for this important volunteer labor. For example, libraries can sponsor graduate

student professional development opportunities related to scholarly communication. Ultimately, engaged citizenship, by definition, requires individuals to take it upon themselves to become knowledgeable about and exercise their democratic rights with regard to issues of great concern. This will always be, to some degree, dependent on volunteerism; however, as this case study demonstrates, the results can be quite powerful when institutions provide formal support to make engagement more effective and to sustain the outcomes of volunteer-based efforts.

NEXT STEPS AND CONCLUSIONS

In addition to identifying a new group of graduate students to help with scholarly communication advocacy and to to sustain the work of OSIG, the most substantial next step with regard to the OA policy is to implement it systematically across campus. This implementation effort further underscores labor issues involved in scholarly communication initiatives. While it can be potentially problematic to rely on graduate student labor for OA advocacy for the reasons noted earlier, it is entirely unrealistic to depend on volunteer labor, graduate student or otherwise, for something like OA policy implementation. The engaged citizenship model is effective for communicating ideas and garnering votes, but it is not as adequate for implementing complex procedural changes. Fortunately, one of the results of these efforts is that the CU Boulder Libraries have invested in several permanent positions that will play a role in formally implementing the OA policy across campus. While the time it took to fill these positions delayed any work toward the implementation of the OA policy after it was adopted in 2015, this more stable, visible, and fully compensated labor represents another benefit that libraries can bring to collaborations with graduate students. By providing financial resources and institutional support, libraries can sustain and build upon scholarly communication efforts that begin with advocacy fueled by volunteer time and effort. With an initial absence of faculty interest in OA at CU Boulder, the unpaid work of graduate students whose time was already at a premium was absolutely essential to sparking an OA policy initiative that not only succeeded but also produced a number of additional benefits for both librarians and graduate students on campus. Ultimately, the CU Boulder collaboration between librarians and graduate students led to significant achievements by way of campus-level democratic processes, and of equal importance, it also helped to encourage a group of passionate early career researchers to continue to work toward improving scholarly communication on campus, in their disciplines, and at the federal policy level.

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