

Catalysts of Open Education in Colorado

A Qualitative Study of Enabling Forces in OE Momentum

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Abstract

What are/were the catalysts that enabled Open Education (OE) momentum in Colorado, and what can be gleaned from its origin stories? Using a mix of qualitative methods this paper maps the forces—both actual and imagined—that enabled OE to flourish across the state. This paper locates patterns specific to Colorado and analyzes the interdependent and interpersonal aspects of the OE movement and philosophy in that state. It arrives at the conclusion that two elements in particular (state-level support and community characteristics) contribute to Colorado’s reputation as an OE leader. Rather than view these as distinct forces, the two themes entwine and synergistically enhance the other. This paper contributes to growing research in the area of second-order OE thriving and sustainability. It makes the case that, while identifying barriers to OE can assist with action-oriented research, identifying the enabling forces can also offer a more nuanced understanding in a particular place: less of the bad is one tactic, more of the good is another.

Introduction

Open Education (OE) can mean many things to many people. It is simultaneously an emerging global movement (Cape Town Open Education Declaration, 2007), a form of academic resistance (Morris and Stommel 2017), a conduit for social justice (Roberts-Crews 2022), and a celebration of collaborative efforts (Mays, 2017); Characteristic of the OE movement is that there seems to be no evident epicenter, with activity dispersed across different types of institutions types of intervention, participants, and geographic regions.

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This paper names some of the forces¹ that enabled OE to gain momentum in Colorado and to better understand how OE shapes and is shaped by the particularities of a place. This momentum warrants attention given that OE remains an option and add-on in its current manifestation rather than the default for most higher education contexts (Spilovoy & Seaman, 2015). This article aims to bring a grounded perspective to sustaining OE efforts, not just promoting it (Otto and Kerres, 2022; Tlili, 2020; de Langen, 2018).

The goal of this study was to map the forces—actual and imagined—that contributed to the origin stories of Colorado’s OE momentum as narrated by members of that community. By identifying the forces that enabled participation in OE proliferation, we can begin to examine themes that could inform second-order engagement (i.e., going beyond individual champions to shift critical mass). Rather than aim for a comprehensive or exhaustive study that isolates causal relations in Colorado, this paper takes seriously the interdependent aspects of OE to argue that it *cannot* be mechanistically approached or reliably reproduced elsewhere.

OE is not a formula to copy-paste elsewhere. But analyzing the origin stories of a particular place can help identify site-specific ways of sustaining local OE efforts. Thus, treating Colorado as a case study may provide methodological or conceptual insights that can be adapted to the particular needs of other areas with high OE activity. As such, this study focuses on the patterns and forces that make up the constellation of relationships within the Colorado OE community.

Literature Review

Open Education ranges in priorities, practices, and interventions. What counts as OE can vary, with some even noting that “a lack of definitional clarity is a problem for those that consider Open Education as a valid field of endeavour” (Lambert 2018, p.226). Researchers and practitioners of OE have attempted to describe its conceptual configurations using heuristics such as a “constellation of elements” (Farrow 2016, p.11), a typology of practices (Bali, Cronin, and Jhangiani 2020), islands (Weller et al. 2018), and an evolving ecosystem (Allen, Bell, and Billings, 2016). With the promulgation of licensing and use parameters (e.g., Creative Commons certificates, the 5R’s for OER), the first decade of this century saw “growing momentum among higher education institutions to participate in this ‘open’ movement” (Caswell et al., 2008, p.3) with additional mentions of “momentum” in recent literature (Baraniuk, 2010, p.241; Allen, Bell, and Billings, 2016, p.16). Yet, as OE efforts become more nuanced and differentiated, OE will need to balance its divergent interests with the convergent needs of a cohesive community to sustain itself and continue its momentum.

This study focuses on the momentum of Colorado OE writ large, of which OER are but one part. In both conversation and in texts, there seems to be a slippage between OE as a movement or philosophy and open educational resources. They are not synonymous (Cronin and MacLaren 2018), although neologisms like “OER-enabled pedagogy” explicitly connect the two (Wiley and Hilton III 2018;

¹ The author’s research area is in fermentation, where different forces—environmental, microbial, circumstantial—can catalyze and transform a food into a ferment. This study approaches fermentation in the social sense of the term to analyze the enabling forces of OE.

Tillinghast 2020) and utilize frameworks such as COUP (Hilton III et al. 2016) and COUPE (Tillinghast, Fialkowski & Draper, 2020) to assess efficacy. Not surprisingly, the rise in OER development ushered a surge in OER efficacy studies, with foci on metrics such as student success, faculty adoption, and quantifying cost savings. While these are salient topics and matters of concern for equitable education, they represent one of many agendas in the greater OE research community. Some studies identify semantic and infrastructural barriers to adoption (Mishra 2017), some analyze policy assumptions that limit OE proliferation (McCoy-Simmons 2022), but studies on the narratives enabling OE seem lacking.

Studies that focus on the motivations or origin stories of OE are few, with Anne Gaskell providing a prominent exception in an editorial enumerating barriers and enablers for OE to realize its full potential (2018). Identifying barriers to OE can assist with action-oriented research (i.e., policy), however, identifying the enabling forces can also offer a more nuanced understanding in a particular place: less of the bad is one tactic, more of the good is another.

At the same time, existing OE hubs seem to reflexively analyze how they came to be in an effort to identify what worked and what did not. A study by Morgan et al. (2021) simultaneously provides a self-assessment tool and their own assessment results of British Columbia, which provides the rationale that, almost a decade and \$8 million in funds later, “it is timely to address what success factors contributed to the recent momentum observed at five of the institutions” (para. 2). Their claim begs the question: if British Columbia claims to have notable momentum, what or how could other places (like Colorado) learn from it? In a way, the present study aspired to be a small step towards such a self-assessment by first identifying the forces that cluster around founding narratives. By connecting the foundational past with the present situation, these efforts could inform future directions.

Methods

Colorado was chosen as the site of study for the combined reasons of happenstance and intrigue. As a researcher and instructor without tenure, I had the opportunity to join an institution in Colorado for a limited-term appointment and gain entrée (or gain the trust and permission to conduct research by a community) as a new in-group member. At the same time, my own entry into the OE community began with the first community-organized, virtually held Open Education Conference in 2020 (informally known as OpenEd20), for which the Colorado Department of Higher Education (CDHE) OER Council was one of the hosts in the four-organization partnership (Swift 2020). Even then, Colorado’s reputation was preceding itself (a notion to which I will return in data analysis) and curiosity over time led to a formal structuring of a research question: what are/were the catalysts that enabled OE momentum in Colorado, and what can be gleaned from its origin stories?

Mapping the forces of OE momentum required an interdisciplinary approach to methods. Following my training as a communications scholar, I employed narrative analysis (Squire, Andrews, & Tamboukou, 2019) and cross-checked origin stories using discourse analysis, “to study how people present themselves, manage their relationships, assign responsibility and blame, create organizations, enact culture, persuade others, [and] make sense of social members’ ongoing interactional practices” (Tracy, 2001, p.734). Discourse analysis also analyzes word choice by examining the “collocations,

patterns of co-occurrence of words in texts” (Fairclough, 2003, p.131). Here, “texts” goes beyond interview transcripts to also include conference recordings, flyers, websites, artifacts, and publications meant for audiences in higher education. Combining these approaches was crucial to take both the imagined and the lived realities of how OE came to be for the people narrating Colorado’s OE origins.

I also conducted interviews to inform a grounded theory approach, a methodology used by other OE scholars (Cronin 2017, Lashley 2019, Chee & Weaver 2022). Grounded theory owes its name to being “grounded” in rigorous, iterative coding, where observations and patterns are incrementally tested as provisional hypotheses. As an inductive and interactive method, this approach allows researchers to see the “emergent connections between the emerging code” (Glaser 1978, p.39). As a constructivist method, grounded theory sees meaning as being constructed through dialogue where “language confers form and meaning on observed realities” (Charmaz 2006, p.47). Thus, grounded theory does not assume there to be a singular interpretation of an event or phenomenon.

Participant Selection

In prioritizing qualitative data from a particular OE community, this project relied on participants referred to the researcher or who self-identified as part of said community (e.g., “Updated list of OE Ambassadors,” 2019). Recruitment began in Summer 2022 with key informants, who were intentionally sought out by the researcher based on their longstanding (more than five years) OE participation in Colorado and leadership positions. Potential participants were contacted by a recruitment email (see Appendix B), which briefly explained the project scope (see Appendix A), the consent form (e.g., degree of anonymity, see Appendix C), and interview logistics. Snowball sampling led to contacting 25 participants, of which 16 agreed to a recorded interview (see Table 1).

Due to the combined reasons of the OE community being tight-knit and the Colorado community being bound by geographic region, interviewees were given a choice as to how their information would be represented. Participants could indicate on their informed consent forms their degree of anonymity, ranging from fully anonymous to fully named with options to redact identifiers such as institutional affiliation, occupation, or gender (see Appendix C). In the table below, most identifiers have been redacted to honor the anonymity preferences of some participants.

Table 1*Demographics*

	Contacted	Agreed to Interview
Number of participants	25	16
Number of institutions represented	14	12
Number of roles/perspectives represented	8	7 *

*Perspectives include: (1) faculty, educator, instructor, (2) librarian, including roles with scholarly communications focus, (3) coordinator or administrator, (4) deans, including associate and assistant roles, (5) medical professional, (6) graduate student, (7) OER Council member, former and current. Some participants held/hold overlapping roles. The figures above also include past and present roles.

Semi-structured interviews took place over Zoom or in person when circumstances allowed. Three overarching questions were sent in advance to prime the conversation (see Appendix D): one to situate the participant in the context of OE in Colorado, one to assess their perceptions about notable OE momentum in Colorado, and one to ideate what would be necessary to continue OE momentum in the future. Interviews were transcribed and coded for common themes. Consistent with grounded theory, data analysis took place in concert with data collection such that they iteratively informed each other. Preliminary interview findings were memoed and discussed with key informants to sense-check their validity. Once patterns were identified,² the interviews were coded with attention to context-specific parameters (e.g., type of institution, position of the participant, years active in the OE community). Eight patterns were identified, which were clustered into two meta-themes presented in the next section: state-level support and community characteristics.

² Grounded theory tends to see data analysis as it “emerges” from iterative coding, but I use “identify” here as an acknowledgement of my own complicity in choosing when and how many codes were sufficient for drawing conclusions. My thanks to Mélanie Brunet for bringing the work of Victoria Clarke and Virginia Braun (2007) to my attention.

Limitations

A key limitation is that students were not part of the study, partly because the scope of the project focused on *origin* stories of OE momentum which spanned a period (mid-2010s and onwards) prior to when students would have been enrolled. And while a range of respondents were sought after, they are not representative of Colorado as a whole or the teaching and learning communities at Colorado's institutions for higher education. In fact, the respondents quoted here may be predisposed to *constructing* an origin story in real-time, as the questions were being posed, to fulfill the role of a willing and cooperative OE community member. Even so, this may represent nascent desires about how this community would want to see OE thrive in Colorado, without it being unified or formally structured.

In addition, the small sample size could not be avoided due to the limited number of OE participants who could speak to Colorado's origin stories. While these limitations were deemed appropriate for the scope of this study, it is my express hope that the conclusions drawn here are supplemented with follow-up studies in Colorado or compared to other locales.

Results & Discussion

Two themes resonated prominently with all participants: state-level support and community characteristics. Rather than view them as distinct entities, these two strands entwine and synergistically enhance the other. These themes were selected for discussion due to their practical value in informing and leading future sustainability discussions in (and beyond) Colorado. This section will also discuss some of the challenges that OE efforts currently face.

Theme 1: State-Level Support

Centering most of the interviews were discussions about state-level support. Colorado legislature Senate Bill 17-258 was signed in May 2017 and established the Open Educational Resources Council. The Council was tasked with assessing the extant practices of OER and making recommendations in six months' time for potential next steps to boost OER (Bill SB17-258). By November 2017, the Council reported back to the state legislature indicating appetite for OER, then state leaders responded by enacting House Bill 18-1331, which created a grant program to support OER development and usage in higher education (Bill HB18-1331). For the three years that the House Bill was active (2018-2021), \$2.425 million were awarded. To continue funding the grant program, Senate Bill 21-215 was signed into effect in May 2021, highlighting that "practices and philosophy [of OER] have expanded to public institutions throughout the state" (Bill SB21-215, p.1) as well as the increase in student savings at "almost four million [US] dollars in textbook costs" (p.2). The latest bill spans five years and provides \$1 million in appropriations for the council. "By the end of this next bill, a decade of OER policy [2017-2026] will have been implemented in Colorado," notes Spencer Ellis, former Director of Educational Innovation at the Colorado Department of Education.

Key Enabling Force: Collective Action within the State

Tasked with navigating the Colorado Department of Higher Education (CDHE) through these policies, Ellis describes the founding of the council, the grant program, and its subsequent advocacy work as “an amazing case study in civic engagement.” Ellis continues:

[We] brought in these people, asked them to share their expertise, their time, their knowledge, all for free, all in the name of finding out more about open education for Colorado. And what the Bill asked us to do was find out more about what’s the appetite for open education? What would we advise for [what’s] to happen next in Colorado? We know that this movement is taking a foothold, and we’ve seen some other pieces of legislation in other states. What should we do in Colorado? That core group of people, the OER council, was really pivotal in driving things forward. (S. Ellis, personal communication, 14 October 2022).

Many other interviewees echoed their respect for the council members and legislators who took initiative and organized these first years of policy, emphasizing how civic engagement leads to student success and cost savings. These narratives equate the OE efforts with collective action, where intentional uses of power are seen as a means for addressing issues of shared concern.

One member of the Colorado OE scene pointed out that, unlike some other states, Colorado’s appetite for open education is not necessarily a partisan or politicized issue. Especially when the social justice dimension of “open” can easily be reduced to “woke” agendas (e.g., critical race theory), the political climate of some regions can hamper OE flourishing on the basis of progressive connotation. And while Colorado politics can vary by district and institution, its reputation as a “thought leader” in education carries on, notes Jonathan Poritz (personal communication, 14 October 2022). Poritz, a key figure in OE, posits that Colorado has a history of OE advocates being active in national organizations, steering committees, and conference planning (e.g., Open Education Network, Open Education Conference). Even after their tenure, he explains “they continue representing Colorado and speaking and speaking up in organizations, so that Colorado can continue to be a hub and a thought leader” (J. Poritz, personal communication, 14 October 2022).

Some respondents attributed Colorado’s thought-leadership to the state’s size and geographic layout, noting the ease of congregating—both professionally and socially—around the state but still having the breadth and variety of institutions. Carey³, a scholarly communications librarian, noted: “for me, Colorado is just the right size, because we’re big enough that we can have all these diverse perspectives from all the institutions. So we’re not small... or so big [it] would be a lot to wrangle” (personal communication, 18 November 2022). When asked to elaborate, they noted how there is a stronger chance of running into someone you know or the likelihood that one can gather critical mass for organizing task forces at an institutional level. Another respondent, Jamie, discussed Colorado’s unique approach to policy, narrating how “there’s a lot of states who are learning from Colorado because of the vast political support. I mean, even having an open education coordinator, that’s just not something that

³ All pseudonyms will not list surnames and will use singular they/them/their pronouns.

the majority of states even have considered or can potentially do” (personal communication, 7 November 2022). Jamie noted how Colorado was both “being looked at” by other states (e.g., Utah, Idaho) while also “looking at other states” (e.g., Washington). A similar bidirectional pattern was observed in how people discussed “Colorado’s reputation,” with it both feeding into and benefitting from state-level funding.

Key Enabling Force: The Meaning and Value of State-Level Funding

This intertwined nature of reputation and funding was most pronounced in how interviewees described what the legislative support meant to them at their respective institutions. For many, the policies *validated* OE at the highest level of leadership, with many noting how Governor Jared Polis or Congressman Joe Neguse could speak to OE benefits and mechanisms in better detail than their own provosts or deans. The value of having official support from leaders meant that OE projects could be greenlit without requiring approval from immediate superiors, thereby enabling “bottom-up” or “grassroots” efforts. One participant said receiving funds “makes the intervention that much easier. But it’s also about the clout of this being legislation, rather than just a good idea” (personal communication, 11 November 2022).

For others, the policies were more than symbolic: the policies *committed* financial backing and demonstrated a material investment in higher education. In these instances, OE grants were often leveraged at the institutional level (e.g., with matching or supplementary funds) and necessitated coordination across multiple offices on campus. These funds enabled collaborations—across librarians, instructional designers, graduate students, faculty, and other institutions—that would not have otherwise taken place. Many noted how these collaborations were unprecedented or outside the bounds of conventional research grants at the department level (e.g., libraries allocating grant money to faculty across different departments), which manifested as both a bureaucratic speed bump as well as an opportunity for new interactions. Consider, for instance, how the University of Colorado system (comprising four campuses) decided early on to apply as one entity for the state-level grant program. A librarian involved in one such grant characterizes the application process in terms of deliberation and working together:

[it] required us to [ask] what are we going to emphasize in the application? And, okay, we’re applying for money. How does that money have to be spent? So that requires a lot of collaboration and teamwork, and that just built, just solidified our culture as collaborative. (Jesse, personal communication, 14 November 2022)

State-level policies, then, validated OE as something worth pursuing, committed funds to enabling OE projects, and those projects necessitated and built collaborative cultures in turn.

Theme 2: Community Character(istics)

Some interviewees reported forming OE communities prior to the establishment of the OER Council, with vested interests in student success and equitable teaching practices, with entryways via open software, open access, and open publishing. A common refrain for faculty who formed these early

groups was the dearth of OER in their respective disciplines or the reality that available resources were either outdated or penned by authors who did not reflect student demographics. Natalia Vergara of the University of Colorado Anschutz medical campus contextualizes her campus' early efforts in relation to the grant, noting how the two reinforced one another:

It wasn't just the grant. It was more like people being willing to move in this direction because we felt that it was the right thing to do. [...] I don't know how much success we would have had convincing educators to do the work of creating OER because that is an extra effort, right? And they don't have to do it, you know, they're doing their job just fine the way they are. And so you're asking them to do more. So that's what I think: that the grant program made a big difference. (N.Vergara, personal communication, 29 November 2022)

Another instructor, Taylor, mentioned a similar synergy between Council funding and the pre-existing concern for student success at their institution:

My colleagues, we already think so much about the students and their experience and barriers that they're facing [...]. Creating a more customized course experience through open educational resources, liberating yourselves from a traditional textbook and instead focusing on: what are my learning objectives? How can I achieve those learning objectives? [Can I do that] by using multiple different resources that we're putting together? *That's* work and so having some grants to fund faculty, even if it's just \$750 has really made that work more palatable, at least for faculty that are already interested in doing it. (Taylor, personal communication, 18 November 2022)

While OE advocates were already coming together to create OER prior to the Council's formation, nascent collaborations between faculty, instructional designers, and librarians were already in play but became strengthened by legislative and financial support.

Key Enabling Force: Collaboration Across Differences

Collaboration across differences was a common theme amongst interviewees, with recurring mention of the variety of expertise required for robust OE momentum. For those serving on the Council, differences were seen as an asset because different stakes or skills kept discussions dynamic and allowed for assumptions to be challenged. Thus, in striving for diverse representation, the Council benefited from having leaders who each stayed responsive to the variable aims of OE, each with their "domain of influence," recounts Taylor (personal communication, 18 November 2022). What could have disintegrated was instead met with—or kept together by—the social cohesion characteristic of a coalition. Notably, members of the first Council (2018-2021) often described the group in terms of its "magnetism," "magic," and "excitement." Brittany Dudek, Director of the Colorado Community College System and former chair of the Council, contextualized the early years as follows:

It was the start of something real. I recognize that there was work in Open happening before this. I want to recognize that. But this formal work, the inception, the beginning of

it, was *exciting*. We met once a month. None of us minded working. No one minded putting in more hours on it. No one minded spending time in all of these meetings, no one. Everyone was thrilled. We worked *really* hard. And we were really excited. It was constant debate, debating and talking, you know... It was really, really exciting. Like that's the only way I can describe it. I would come home from these meetings [and] I would tell people at work what we talked about because it was that exciting, you know? (B. Dudek, personal communication, 9 November 2022)

While this fervor did not inhere to any one person, a handful of names were repeatedly followed with epithets of “the charismatic one,” “the glue,” or being “larger than life,” which shines a positive light on the group’s identity. Poritz, citing sociologist Mark Granovetter, calls this “the strength of weak ties” (personal communication, 14 October 2022). Members who joined the Council with the grant’s renewal in 2021 even referred to previous Council members as “elders,” connoting a lineage and esteem for in-group membership. Belonging to such a group, then, seems to have mobilized Council members *as a group*, while also engaging in a form of leadership that balances professional drive with collective action.

Key Enabling Force: A Diffuse OE Community

It may be that perceptions of Colorado’s momentum in OE comes from the disconnect between having considerable activity in OE (e.g., state-level policy, state-level conferences, Council members of notable influence) and not having a singular person or institution to name at its helm. Dudek explains that the movement in Colorado is diffuse, making it unique compared to other states with OE momentum (personal communication, 9 November 2022). For instance, Affordable Learning Georgia and Open New York State have become synonymous with their respective states, but these operate within institutional systems (University Systems of Georgia and SUNY/CUNY respectively). In contrast, Colorado’s OE activity spans multiple types of institutions. And, unlike initiatives such as OpenStax (Texas) and MERLOT (California), Colorado does not have a unifying or popular program that represents itself. Dudek also notes that Colorado does not have a central figure, naming Tanya Spillovoy (North Dakota), Rajiv Jhangiani (British Columbia), and Jeff Gallant (Georgia) as prominent examples in North America. So while Colorado has a sizable group of people furthering OE activity, no one person emerges as *the* face of Colorado OE. In fact, the very nature of dispensing funds across the state means that OE pursuits remain dispersed as well.

Having a diffuse OE movement seems to manifest in two ways. First, since momentum is not predicated on any one school, initiative, or person, OE can persist despite turnover in faculty, staff, and administrators. Carey noted how their new provost “came around to Open” in part because OE leaders brought it to their attention soon after they started their post (personal communication, 18 November 2022). Jesse discussed the continuity of OE on their campus as a direct result of the recent renewal of state legislature (personal communication, 14 November 2022). In this sense, one could argue that the CDHE serves as the throughline for OE in Colorado, who mobilized additional means of generating activity like the Colorado OER Conference and the CDHE’s ambassadorship programs. The Ambassadors Program, initially intended for outreach, boasts over 120 members in their roster who

represent more than 33 institutions (Colorado Open Education Ambassadors Program, n.d.). By offering new and ongoing training sessions, the program allows for ambassadors to become allies while also fulfilling skills-building and capacity building goals. Many interviewees commented on the willingness of CDHE and the Council to connect like-minded people across institutions.

A diffuse OE movement also entails a loose network of like-minded individuals who, because of the looseness, tend to cultivate an invitational ethos. Many interviewees characterized the OE community as a warm welcome—by no means unique to Colorado—as experienced through proximal ties to OE leaders. Some explained the proximity of OE leaders in terms of platforms like Twitter, while others meant a literal proximity of “seeing at least one familiar face” at events. Faculty and staff equally lauded how conferences were characterized by “strong programming,” which was complemented by the perception that one could “easily ask for introductions” partly because the event would be organized in “a non-hierarchical” manner. Consider how Leslie Reynolds of University of Colorado Boulder narrates the OE community, both within her institution and to the wider OE community:

They are incredible, right? And the group that we work with [...] is incredible at sharing knowledge, and when you go to the State Conference, and OER Day and everyone... everyone is in everything! Just the desire to work together and help share knowledge, help people make things happen... I mean, *that's* really the value of Open Ed, right? It's sharing knowledge and lighting other candles as we go along. And that's important because I feel like the open education community is kind of how I'd like the world to work: full of compassion and care, and helping everyone to succeed. (L. Reynolds, personal communication, 22 November 2022)

Here, Reynolds describes OE collaboration as a model for “how [she]’d like the world to work,” conveying both accolades and aspirations for OE and beyond. Reynolds’ metaphor refers to the idiom that “a candle loses nothing by lighting another candle” and aptly captures the spread and warmth of the OE ethos.

Again, the welcoming nature of OE communities could be said about the broader OE community, but the relative density of OE activity in Colorado may enhance its effects. Opportunities to meet (and catch up with) like-minded people happen regularly with international, national, and local events, which become common reference points within the local community. Over a third of the respondents named Rajiv Jhangiani’s keynote at the Colorado Learning and Teaching with Technology (COLTT) Conference of 2018 as a pivotal moment for connecting OER to a greater set of OE practices (e.g., pedagogy).⁴ One interviewee even admitted to stealing the recording of the keynote to share with their faculty resource center, “for people to view and get exposed to that” (Riley, personal communication, 14 November 2022). It may be that as people join the OE movement in Colorado (in its diffuseness) they start to notice OE momentum on the basis of gradually learning about the variety of OE events, be they

⁴ Here is an instance of discrepancies between real and imagined narratives: at least three mentions of Jhangiani’s keynote were described as taking place in 2017, before Bill HB18-1331. In these instances, the keynote was thought to fuel OE momentum and leverage key players to galvanize OE efforts such as the Bill, even though fact-checking confirmed that the keynote was delivered *after* the Bill was signed into effect. Such memories demonstrate the tremendous effects (and affects) the event generated within the Colorado OE community at that time.

formal ones (e.g., recurring conferences, due dates for grant proposals) or ad hoc ones (e.g., committee meetings at an institutional or departmental level). Regardless of timeline or scale, it appears that recurring events keep bringing people together to renew the *sense* of cohesion and reinforce community ties.

Perceptions of OE momentum in Colorado remain diffuse, but its interconnectivity is renewed with events, special interest groups, and local committees who repeatedly convene to enact a form of coalition. However, the dynamicity of diffuse or cohesive ties is only meaningful insofar as like-minded individuals gather together, and there is no guarantee that gatherings can sustain themselves. The following section focuses on some of the challenges that Colorado participants discussed, although the issues discussed go beyond the state.

Challenging the Narrative: Challenges for the Greater OE Movement/Philosophy

By no means does this sample reflect a universal experience with OE, nor do I mean to suggest that OE in Colorado is a *fait accompli*, a thing already done, decided upon, or accepted as such. In fact, one could argue that there is a danger in framing OE awareness as having achieved some meaningful threshold because to presume momentum risks relegating outreach and advocacy efforts to the proverbial backburner. Or, it may usher in a form of flimsy support: on paper only, or, to quote some participants, for “one-offs only” (Taylor, personal communication, 18 November, 2022), or institutions choosing “to keep a little bit going, [just] to say they’re doing it” (Riley, personal communication, 14 November 2022). Meg Brown-Sica, long-time OE advocate and Assistant Dean for Scholarly Communications and Collections at the Colorado State University libraries, voices a different perspective:

I personally don't think we have great momentum. I mean, I think that we've definitely done more than was there, you know, I think we've made it in terms of people knowing what [OE] is. I think with the small grants that we've given, if nothing else, it really made people realize, “oh, *this* is what this is; this is a thing.” And we've tried to put grants out there, at many institutions in Colorado primarily for that reason. [...] But I don't feel that we're anywhere near where we should be. (M. Brown-Sica, personal communication, 8 November 2022)

While awareness is a key aspect of a growing movement, it may not affect change or directly lead to action. Or, as others have noted, while awareness is a good thing to strive for, and Colorado reports “awareness” at least in numbers (Bill SB21-215, p.1), it may be that most faculty equate open education with a free textbook.

Key Challenge: Who Could Be, Should Be, or Is Actually Doing OE Work?

Upon elaboration, Brown-Sica’s insights point to a coordination problem, and a mismatch between who is expected to do this work (in theory), who is tasked with leading OE efforts (in practice), and how this work is sustained, or not, by resources (both human and capital) as well as infrastructure (over time, across institutional turnover). An example of this mismatch is epitomized in Brown-Sica’s

aside: “You know, it’s funny, somebody said to me, ‘you librarians, you’re so pushy on OER. Why don't you let faculty lead?’ and I’m like, hey, I will get out of the way if faculty are leading this, but I haven't seen that so far. And I’ll do my best until that happens” (personal communication, 8 November 2022). Brown-Sica’s comments gesture to perennial problems that have haunted OE proliferation: faculty are simultaneously the best positioned to instantiate OE and afforded the least latitude to making it happen (see Annand & Jensen 2017; Todorinova & Wilkinson 2020; McKinney & Coolidge 2021), which acutely places pressure on people whose positions limit their ability to affect lasting change.

Most interlocutors admit that OE efforts fall on top of existing workloads, making it difficult to persuade new OE enthusiasts, sustain existing OE advocates, and recognize leading OE champions in formal terms. Against this backdrop, a tension between who *can* do the work versus who *ought to* complicates matters further, as captured in this response from an educator who sits on their university’s committee for OE:

...don't get me wrong. I love my librarians! They are working with me on [OE] and that's great. But you have the wrong players when you have only the librarians [...] like, where's the value from your faculty though? So I think for me, there needs to be more faculty *actually* involved in some of these conversations [...] because the questions are different. And the concerns that I'm posing to them are different. (Robin, personal communication, 16 November 2022)

Another educator, Taylor, discusses the difficulty in finessing the rhetoric for OE messaging to faculty, even suggesting that OE could benefit from a dedicated marketing strategy since individuals “can continue with word of mouth” but the value of Open will always be eclipsed by conventional publishers who can easily out-advertise with their exorbitant marketing budgets (personal communication, 18 November 2022). Taylor also laments how OE messaging needs to continue debunking myths in conventional education before fine-tuning the value propositions associated with OE. Consistent with Rolfe (2012), for example:

...it’s kind of complicated to explain the different licenses and legally, technically what you can do. And I think a lot of people just violate copyright law all the time and don’t even realize they’re doing anything wrong. So when you’re trying to introduce Open [Education] like, “Hey, you can share this for free and you’re not violating copyright law,” people are like “I never care about copyright law.” (Taylor, personal communication, November 18 2022)

Other perspectives echoed this desire to change the narrative and rhetoric surrounding OE, especially noting how the current talking points have not been enough to persuade individuals to OE.

Key Challenge: Is OE a Movement or a Philosophy to Sustain?

Extending Taylor’s concerns about marketing OE against conventional publishers, Doug Strauss of Aims Community College expressed concern about the sustainability of OE because the convenience of having conventional resources is too enticing, especially when faculty are overloaded (personal

communication, 11 November 2022). He couples sustaining OE with a pivot to other Open practices (e.g., open pedagogy and co-creating textbooks versus conventional homework banks) to reinforce the backbone of an OE *movement*:

I think all of us blips [on the radar] can become something bigger. And I think that's what my experience of the whole Open Education movement is. [...] There's other people all over the world who are doing things and how much of a groundswell can we make? And that's not to say that this is just about competing with the big publishing companies. But it's our philosophy behind this movement; it certainly comes from the right place, at least in my humble opinion. (D. Strauss, personal communication, 11 November 2022)

Another instructor at University of Colorado Denver, Alex, also spoke of how viewing OE *as a philosophy* helped them connect OER with open pedagogy. In reference to the idiom “sage on a stage,” which connotes a unidirectional teaching style, they see the enmeshment between OE and open pedagogy as follows:

I have since embraced [...] that philosophical aspect of letting go some to maybe share the stage with your students, to co-create materials, or to co-adopt material, and to give them some power and thinking about what they want to learn about. (Alex, personal communication, 16 December 2022)

Subsequent analysis of interview transcripts suggest that mentions of “philosophy” collocate with phrases that frame OE as “a good idea,” “the right thing to do,” and “consistent with my values.” Mentions of OE as a “movement” use phrases such as “convert,” “convince,” “rhetoric,” “messaging,” and “advocacy.” Of course, philosophies and movements cannot be neatly cleaved and, often, the success of a movement lies with the cogence of the philosophy behind it. But the two paradigms seem different enough in at least phrasings and priorities. In the quotations above, for instance, the difference between people who gather for OE because they believe it's a social movement *against* publishers (leveraging OER) versus a movement *for* co-creating knowledge (leveraging open pedagogy) point to differences in priorities, actionable interventions, and talking points—which may point to two different sustainability strategies.

The challenge of sustaining OE momentum can also be explained by scale. Dustin Fife, a founding OER Council member, uses the analogy of a recycling program to illustrate the tension between scales of intervention, explicitly drawing attention to the discrepancies between aspirational OER messaging and the realities of structural inadequacies in higher education:

[O]pen educational resources are a lot like recycling. Recycling is really good. And we should do it individually. And it's ethical to do, and we should try to build businesses for it. But we're lying to ourselves if we think we're saving the world through our individual recycling since most waste comes from corporations; most pollutants come from corporations. So it doesn't mean we shouldn't do Open Educational Resources. We can make individual differences and change individual lives. But still[...]. We just aren't

making the structural changes that we sometimes think we are. (D. Fife, personal communication, 7 November 2022)

Much like the environmental movement's mantra to recycle, efforts to mitigate waste end up being the burden at an individual scale of action. Or worse, an eco-conscious philosophy may see recycling as an ethical thing to believe in, but it may not lead to meaningful action. Whereas some participants pointed out who can or ought to be doing the work of OE, Fife looks to scale (see also Donella Meadows' systems theory or Anthony Giddens' structuration theory for more). In Fife's analogy, individual OE efforts (i.e., OER projects) remain insufficient for fundamental change, for the simple reason that piecemeal efforts do not address structural problems. "Stop! Unfunded! Mandates!" he chants at the end of the interview.

Colorado has a funded mandate, at least until 2026, but most participants observe the need to change structures well before the current round of legislative support expires. Many respondents pressed upon the need to revise tenure and promotion guidelines, a task which can only be completed *by* faculty *for* other faculty. Others are creating positions that explicitly and deliberately center OE in their titles and duties. As others in OE research have argued, a more robust understanding of individual and collective values will be key to sustaining the OE movement (MacKinnon et al., 2016), whether that be financially (Wiley 2007), internationally (Bozkurt et al. 2018), or ideologically (Kenrick, 2009). So while the founding narrative of OE in Colorado celebrates legislative and collective action, its future rests in the paradigmatic shift towards identifying and attenuating structural bottlenecks such as faculty loads, political structures, and clear messaging that would enable its momentum to continue.

Conclusion

More than a handful of years into strategically building out OE capacity, Colorado seems to find itself in a balance between the solid structures of state-level "top-down" support (often leveraged by provosts, chancellors, and deans) and the variability of OE efforts (with instructors, libraries, and departments) from the "bottom-up." The origin stories of Colorado's OE momentum build atop this balance, with current conversations moving from first-order awareness and use towards deeper commitments to infrastructure and sustainability. Structural supports at the state level have formalized OE efforts in Colorado and have helped to coalesce a diffuse group. Their influence seems to have synergistically advanced OE in general and in Colorado specifically.

It is worth repeating: OE tactics cannot be copy-pasted elsewhere, and it would be a mistake to take the Colorado case as *the* emblem of OE origins or its futures. However, the focus on Colorado can show how certain origins connect with certain futures: the OE community in Colorado looks diffuse because it has not had a single leader at its helm but rather a structural (legislative, financial) system undergirding its myriad projects for almost a decade. Over that time, the variety of peoples, projects, and purposes keep OE functioning in this diffuse manner, while still contributing to OE momentum locally and broadly. This may help explain why Colorado's OE efforts looks and functions the way it does, not in any way that can be used elsewhere as an OE playbook, but as one example of an OE community trying to identify and address the perceived challenges ahead: sustaining itself beyond funding mandates.

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Conflict of Interest Statement

The author declares no conflict of interest.

References

- Allen, N., Bell, S.J., & Billings, M. (2016). Momentum building: Progress towards a national OER movement. *Against the Grain*, 28 (5): 14-16. DOI: [10.7771/2380-176X.7505](https://doi.org/10.7771/2380-176X.7505).
- Annand, D., & Jensen, T. (2017). Incentivizing the production and use of open educational resources in higher education institutions. *The International Review of Research in Open and Distributed Learning*, 18(4). DOI: [10.19173/irrodl.v18i4.3009](https://doi.org/10.19173/irrodl.v18i4.3009).
- Bali, M., Cronin, C. & Jhangiani, R.S. (2020). Framing open educational practices from a social justice perspective. *Journal of Interactive Media in Education* (1), 1-10. DOI: [10.5334/jime.565](https://doi.org/10.5334/jime.565).
- Baraniuk, R.G., (2010). Challenges and opportunities for the open education movement: A Connexions case study. In T. Iiyoshi and M.S.V. Kumar (Eds.) *Opening up education: The collective advancement of education through open technology, open content, and open knowledge* (pp. 229-246). MIT Press.
- Bill SB17-258. Using Open Educational Resources In Higher Education, 2017 Regular Session, Colorado General Assembly (signed act as of 03 May 2017). https://leg.colorado.gov/sites/default/files/2017a_258_signed.pdf.
- Bill HB18-1331. Higher Education Open Educational Resources, 2018 Regular Session, Colorado General Assembly (signed act as of 30 April 2018). https://leg.colorado.gov/sites/default/files/2018a_1331_signed.pdf.
- Bill SB21-215. Use Of Open Educational Resources In Higher Education, 2021 Regular Session, Colorado General Assembly (signed act as of 05 May 2021). https://leg.colorado.gov/sites/default/files/2021a_215_signed.pdf.
- Bozkurt, A., Koseoglu, S., & Singh, L. (2018). An analysis of peer reviewed publications on openness in education in half a century: Trends and patterns in the open hemisphere. *Australasian Journal of Educational Technology*, 35(4). <https://doi.org/10.14742/ajet.4252>.
- Cape Town Open Education Declaration. (2007). <https://www.capetowndeclaration.org/read/>.
- Caswell, T., Henson, S., Jensen, M. & Wiley, D. (2008). Open educational resources: Enabling universal education. *International Review of Research in Open and Distributed Learning*, 9 (1), 1–11. DOI: [10.19173/irrodl.v9i1.469](https://doi.org/10.19173/irrodl.v9i1.469)
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.
- Chee, M. & Weaver, K.D. (2022). White paper on OER: Seven recommendations to improve OER uptake in higher education institutions. *UWSpace*. <http://hdl.handle.net/10012/18167>.

- Clarke, V. & Braun, V. (2008). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101, DOI: [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa).
- Colorado Open Education Ambassadors Program (n.d.). Accessed February 1, 2022. <http://masterplan.highered.colorado.gov/colorado-open-education-ambassadors-program-2/>.
- Cronin, C. (2017). Openness and praxis: Exploring the use of open educational practices in higher education. *The International Review of Research in Open and Distributed Learning*, 18(5). DOI: [10.19173/irrodl.v18i5.3096](https://doi.org/10.19173/irrodl.v18i5.3096).
- Cronin, C., & MacLaren, I. (2018). Conceptualising OEP: A review of theoretical and empirical literature in open educational practices. *Open Praxis*, 10(2), 127–143. DOI: [10.5944/openpraxis.10.2.825](https://doi.org/10.5944/openpraxis.10.2.825).
- de Langen, F. (2018). Sustainability of Open Education Through Collaboration. *The International Review of Research in Open and Distributed Learning*, 19(5). DOI: [10.19173/irrodl.v19i5.3548](https://doi.org/10.19173/irrodl.v19i5.3548).
- Fairclough, N. (2003). *Analysing discourse: textual analysis for social research*. New York: Routledge.
- Farrow, R. (2016). Constellations of openness. In M.Deimann & M.A.Peters, (Eds.) *The philosophy and theory of open education: Peer learning and the intellectual commons* (chap. 1). New York: Peter Lang Publishing.
- Gaskell, A. (2018). Editorial—The open education movement: How can we realize its full potential? *Journal of Learning for Development*, 5 (3), 183-186. <https://jl4d.org/index.php/ej14d/article/view/320/356>.
- Glaser, B.G. (1978). *Theoretical sensitivity: advances in the methodology of grounded theory*. Sociology Press.
- Hilton III, J., Wiley, D., Fischer, L., & Nyland, R. (2016). *Guidebook to Research on Open Educational Resources Adoption*. Open Education Group for Open Textbook Network. <https://openedgroup.org/wp-content/uploads/2016/08/OER-Research-Guidebook.pdf>.
- Kenrick, J. (2009). "Commons Thinking: The ability to envisage and enable a viable future through connected action". In Stibbe, A. (dir.). *The handbook of sustainability literacy: Skills for a changing world*. Dartington: Green Books. pp. 33-38. Available online: <http://arts.brighton.ac.uk/stibbe-handbook-of-sustainability/chapters/commons-thinking>.
- Lambert, S.R. (2018). Changing our (dis)course: A distinctive social justice aligned definition of open education. *Journal of Learning for Development*, 5 (3), 225-244.
- Lashley, J. (2019). Our educative reticence: A grounded theory of instructors' not adopting open textbooks [Doctoral dissertation, Clemson University]. Tiger Prints. https://tigerprints.clemson.edu/all_dissertations/2389/.

- MacKinnon, T., Pasfield-Neofitou, S., Manns, H., & Grant, S. (2016). A meta-analysis of open educational communities of practice and sustainability in higher educational policy. *Alsic*, 19(1). DOI: [10.4000/alsic.2908](https://doi.org/10.4000/alsic.2908).
- Mays, Elizabeth (Ed.). (2017). *A guide to making open textbooks with students*. Rebus Community. <https://press.rebus.community/makingopentextbookswithstudents/>.
- McCoy-Simmons, C. (2022). OER state policy discourse: Adding equity to the cost savings conversation. *Journal of Open Educational Resources in Higher Education*, 1(1), 117–136. DOI: [10.13001/joerhe.v1i1.7183](https://doi.org/10.13001/joerhe.v1i1.7183).
- McKinney, A. & Coolidge, A. (2021 March 02). “Practitioner Perspectives: The DOERS3 Collaborative on OER in Tenure and Promotion.” *New England Board of Higher Education*. <https://nebhe.org/journal/practitioner-perspectives-the-doers3-collaborative-on-oer-in-tenure-and-promotion/>.
- Mishra, S. (2017). Open educational resources: removing barriers from within. *Distance Education*, 38(3), 369-380. DOI: [10.1080/01587919.2017.1369350](https://doi.org/10.1080/01587919.2017.1369350).
- Morgan, T., Childs, E., Hendricks, C., Harrison, M., DeVries, I., Jhangiani, R. (2021). How are we doing with open education practice initiatives? Applying an institutional self-assessment tool in higher education institutions. *International Review of Research in Open and Distributed Learning*, 22(4), 125-140. DOI: [10.19173/irrodl.v22i4.5745](https://doi.org/10.19173/irrodl.v22i4.5745).
- Morris, S.M. & Stommel J. (2017). Open Education as resistance: MOOCs and critical digital pedagogy. In E. Losh (Ed.) *MOOCs and their afterlives: experiments in scale and access in higher education* (pp.177-197). U Chicago Press. DOI: [10.7208/chicago/9780226469591.003.0012](https://doi.org/10.7208/chicago/9780226469591.003.0012).
- Otto D., & Kerres, M. (2022). Increasing sustainability in open learning: prospects of a distributed learning ecosystem for Open Educational Resources. *Frontiers in Education*, 7, 866917. DOI: [10.3389/educ.2022.866917](https://doi.org/10.3389/educ.2022.866917).
- Roberts-Crews, J. (2022 August 15). Creating a socially just open education [Video]. Uploaded by Open Education Network. YouTube. <https://www.youtube.com/watch?v=W8ZeN6VnN7U>.
- Rolfe, V. (2012). Open educational resources: staff attitudes and awareness. *Research in Learning Technology*, 20. [10.3402/rlt.v20i0.1439](https://doi.org/10.3402/rlt.v20i0.1439).
- Spilovoy, T. M., & Seaman J. (2015). *Opening public institutions: OER in North Dakota and the nation*. Babson Survey Research Group. Retrieved from <http://www.onlinelearningsurvey.com/reports/2015openingthepublicsnd.pdf>.
- Squire, C., Andrews, M., Tamboukou, M. (2019). Narrative research. In P. Atkinson, S. Delamont, A. Cernat, J. W. Sakshaug, & R. A. Williams (Eds.) *Sage research methods*. Sage Publications. DOI: [10.4135/9781526421036772528](https://doi.org/10.4135/9781526421036772528).

- Swift, S. (2020 July 29). "2020 Open Education Conference to Be Held November 9 - 13 Online" [Press Release].
<https://openstax.org/blog/2020-open-education-conference-be-held-november-9-13-online>.
- Tlili, A., Nascimbeni, F., Burgos, D., Zhang, X., Huang, R., & Chang, T. W. (2020). The evolution of sustainability models for Open Educational Resources: insights from the literature and experts. *Interactive Learning Environments*, 31(3): 1-16. DOI: [10.1080/10494820.2020.1839507](https://doi.org/10.1080/10494820.2020.1839507).
- Tillinghast, B. (2020). Developing an open educational resource and exploring OER-enabled pedagogy in higher education. *IAFOR Journal of Education: Technology in Education*, 8(2), 159-174.
- Tillinghast, B., Fialkowski, M.K., & Draper, J. (2020). Exploring aspects of open educational resources through OER-enabled pedagogy. *Frontiers in Education*, 5(76). DOI: [10.3389/feduc.2020.00076](https://doi.org/10.3389/feduc.2020.00076).
- Todorinova, L. & Wilkinson, Z.T. (2020). Incentivizing faculty for open educational resources (OER) adoption and open textbook authoring. *Journal of Academic Librarianship*, 46(6): article 102220. DOI: [10.1016/j.acalib.2020.102220](https://doi.org/10.1016/j.acalib.2020.102220).
- Tracy, K. (2001). Discourse analysis in communications. In D.Schiffrin, D.Tannen, & H.E.Hamilton (Eds.) *The Handbook of Discourse Analysis* (pp. 725-749). Blackwell Publishers.
- "Updated list of OE Ambassadors." (2019 November 14). Accessed August 1, 2022. Available at <https://docs.google.com/spreadsheets/d/1QWd63xW1WfFwASK4THjKwvFIYHr3D2uXcSoqnuNX9o/edit#gid=0>.
- Weller, M., Jordan, K., DeVries, I., & Rolfe, V. (2018). Mapping the open education landscape: Citation network analysis of historical open and distance education research. *Open Praxis*, 10(2), 109–126. DOI: [10.5944/openpraxis.10.2.822](https://doi.org/10.5944/openpraxis.10.2.822).
- Wiley, D. (2007). On the Sustainability of Open Educational Resource Initiatives in Higher Education. OECD Centre for Educational Research and Innovation.
<http://www.oecd.org/edu/ceri/38645447.pdf>.
- Wiley, D., & Hilton III, J. L. (2018). Defining OER-enabled pedagogy. *The International Review of Research in Open and Distributed Learning*, 19(4). DOI: [10.19173/irrodl.v19i4.3601](https://doi.org/10.19173/irrodl.v19i4.3601).

Appendices

Appendix A. Project Description

Project Description: Who or what are the catalysts that made Colorado a hub for Open Education? Open Education (OE) is both a movement and a philosophy that aims to grant access to educational opportunities for all. In this study, I intend to examine the various forces that helped Colorado emerge as a leader in OE practices and initiatives. Using a mix of qualitative methods (e.g. interviews, narrative analysis), the goal of this project is to map the forces—both actual and imagined—that contributed to Colorado’s origin stories in OE. Interviews will be coded for key players, place-based ethos, policies, promises, tools, platforms, protests, advocacy efforts, and other themes as they emerge. Rather than aim for an exhaustive study that isolates causal relations, this project attempts to identify the interdependent relationships between institutions, state/province priorities, and OE communities of faculty and staff. This research will produce a thematic map of what may have helped OE communities flourish in the past, thus informing future hubs. A secondary outcome of this research will be to develop a shareable protocol for other researchers who may be interested in studying other OE hubs.

Appendix B. Recruitment Letter

Dear [PARTICIPANT]

My name is Maya Hey and I am a researcher from Colorado State University studying Open Education as both a movement and a philosophy. As part of the 2021-2022 cohort of the Open Education Fellowship, I am conducting a research study on the origin stories of how Colorado became a hub for Open Education (OE). A brief description of the project is at the bottom of this email; and I am the Principal Investigator for it.

As someone immersed in the OE landscape of Colorado, I’m wondering if you’d be open to speaking with me.

I would be asking questions such as: how did you come to working in OE in Colorado; is it an OE hub; and, if so, what makes you say so? Participation—including informed consent forms and interview—will take approximately 55 minutes in total, over Zoom. Your participation in this research is voluntary, though I cannot offer remuneration for your time. You will be able to anonymize your personal identifiers to the extent that you wish, and, if you decide to participate in the study, you may withdraw without penalty. If you still have questions, I would be more than happy to clarify any of these procedural aspects of the study.

To indicate your willingness to participate and to continue with scheduling an interview, please respond to this message with a few potential times/dates for an interview. (Any time before [DATE] would be ideal.) One week prior to our interview, I will send you the informed consent form and Zoom link.

If you have any questions about the research, please contact me here or by phone: [PHONE NUMBER].
If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at:
RICRO_IRB[at]mail.colostate.edu; 970-491-1553.

I look forward to hearing from you as time allows.

Sincerely,
Maya

Appendix C. Phrasing on Informed Consent Form For Participants to Choose Degrees of Anonymity.

WHO WILL SEE THE INFORMATION THAT I GIVE?

This study will gather information in the form of an audio recording. Only I (the PI) will have access to this recording. In fact, the first question of the interview will be: “Do I have your permission to record this conversation?” after which I will only proceed if you answered yes on the recording. Depending on how you select your **degree of anonymity** below, I will transcribe the audio recording and, where needed, use gender-neutral pseudonyms or redact information per your request. Please note that excerpts from this transcript may be used in one or more of the following formats: conference presentation, social media post, manuscript for a peer-reviewed journal article.

__ (*please initial*) I understand that excerpts from my interview may be used for conference presentations,
social media posts, and/or manuscripts for peer-reviewed journal articles.

Degree of anonymity: You will be given the option to choose how your information will be presented in the above formats. **Select ONE** of the following options by initialing next to it.

__ (*option one*) Anonymous in full.
No personal identifiers including name, gender, occupation, or institutional affiliation.
No reference will be made in written or oral materials that could link you to this study.

__ (*option two*) Occupation only.
No name, gender, or institutional affiliation. Gender-neutral pseudonyms may be used.
No reference will be made in written or oral materials that could link you to this study.

___ (*option three*) Selective information disclosed.

I feel comfortable sharing:

(*please initial one or more potential identifiers*)

___ my name

___ my gender, with the pronouns _____

___ my occupation

___ my institutional affiliation

___ other category: _____

For the first two options, I will assign a code to your data so that the only place your name will appear in our records is on the consent form and in our data spreadsheet which links you to your code. Only I will have access to the link between your name, your code, and your data.

Depending on where our conversations take us, you may find that you'd like to amend the choice you selected above. This can be done if you notify me in writing before December 1st, 2022. After that date, I will make every effort to make the changes, but I cannot guarantee it.

___ (*please initial*) I understand that I can change my selection until December 31st, 2022.

Appendix D. Interview Questions

Biographical and Context Question: How did you come to working in Open Education (OE)? What was your motivation to pursue this work in Colorado?

Opinion Question: To what extent do you think Colorado has notable momentum in OE? Or, what is unique about OE in Colorado?

Future Question: Looking ahead, how would you want momentum to gather/continue in Colorado? Or, what would be necessary for this reality to happen?