

Rethinking Committee Work in the Research Enterprise: The Case of Regenerative Gatekeeping

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Key Points

- Committee work influences the STEM research enterprise.
- Committee members play roles as gatekeepers that maintain the status quo and foster institutional inertia or can become *agents of change*.
- “Regenerative gatekeeping” provides a framework for promoting belonging, access, justice, equity, diversity, and inclusion.

Plain Language Summary

The science, technology, engineering, and mathematics or STEM research enterprise is shaped by the myriad committees that support it, and the committee members making decisions about policies, funding, and personnel effectively serve as gatekeepers. Centering belonging, access, justice, equity, diversity, and inclusion in day-to-day committee work can empower many more STEM community members to act as agents of change. We describe a new approach to committee service we refer to as “regenerative gatekeeping” with the aim of broadening participation and improving the climate of geosciences.

Abstract

Committees touch nearly every facet in the science, technology, engineering, and mathematics (STEM) research enterprise. However, the role of gatekeeping through committee work has received little attention in Earth and space sciences. We propose a novel concept called, “regenerative gatekeeping” to challenge institutional inertia, cultivate belonging, accessibility, justice, diversity, equity, and inclusion in committee work. Three examples, a hiring committee process, a seminar series innovation, and an awards committee, highlight the need to self-assess policies and practices, ask critical questions and engage in generative conflict. Rethinking committee work can activate distributed mechanisms needed to promote change.

COMMENTARY

The STEM research enterprise is slow to change (Morris, [2021](#); Behl et al., [2021](#)), and as suggested by Marín-Spiotta et al. ([2020](#)), change will require reexamination of current policies, programs, and processes. Committees influence policies, personnel, funding, and as such, committee members serve as “gatekeepers,” which deserves special attention in the Earth and space sciences. When members and/or entire committees work without interrogation of their

44 values, ideas and perspectives, exclusionary practices and behaviors persist. Committees in the
45 STEM enterprise have different goals and charters, and engage in the act of gatekeeping.
46 Naturally the scope of the gatekeeping role varies widely because committee duties vary widely,
47 and they are embedded in larger institutional and social systems.

48 We, the Coastal and Ocean STEM Equity Alliance (COSEA), propose a “regenerative
49 gatekeeping” framework that integrates belonging, accessibility, justice, equity, diversity, and
50 inclusion, and recasts gatekeepers as stewards rather than sentinels. We would like to imagine
51 gatekeeping as more than a system that controls or limits access but rather as a process that
52 cultivates “stewards of innovation” or “agents of change.” As implied by its definition,
53 regeneration alludes to frameworks that foster renewal, dismantling barriers (Berhe et al., [2021](#))
54 and maximizing opportunities, and advance beyond the current state. Regenerative gatekeeping
55 has three components: self-assessing committees and their policies and practices, asking critical
56 questions, and engaging in generative conflict. By “regenerative gatekeeping,” we join others
57 who propose recent qualifiers in other arenas in the United States, e.g., [restorative justice](#),
58 [transformative resilience](#), [transformative justice](#), [generative conflict](#) (Anderson, [2021](#)), and
59 [emergent strategy/emergent design](#). This new framework will move us closer to the
60 intentionality, accountability (Anderson, [2021](#)), and clarity required to transform the STEM
61 research enterprise. Given the foundational nature of committee service to the STEM research
62 enterprise, we believe that embracing this new framework holds great untapped potential.

63 64 **The Pressing Need**

65 Much as we can be unaware of our own biases, we can also fail to recognize the many ways in
66 which our work on various committees plays a gatekeeping function that maintains the status quo
67 in the geosciences. Implemented with care and diligence, gatekeepers can play a transformative
68 role in fostering institutional and systemic changes in the geosciences. Regenerative gatekeeping
69 could be a vehicle for widespread action to advance diversity, equity and inclusion in
70 geosciences; this requires consideration of both under-represented groups and individuals and
71 specific types of higher education institutions such as [minority serving institutions](#) (MSIs).
72 Within academia, scholars have recently argued that geosciences face a persistent lack of race
73 and ethnic diversity as evidenced by Ph.D. attainment (Bernard and Cooperdock, [2018](#)) and
74 undergraduate degree attainment (Beane et al., [2021](#)) including at faculty levels. These two
75 studies make use of institutional data sets that continue to grow, but that have historically been
76 difficult to access. Indeed, recent grassroots efforts to mine similar data from the NSF showcase
77 the potential power that committees have to better understand the need for change (Chen et al
78 [2022](#)). We are encouraged by this progress and call on individuals and committees to evaluate
79 what data (if any) are collected, how data are used (e.g., self-assessment, evaluation, audits) and
80 to engage all stakeholders in the process of fostering change. Change will not happen overnight;
81 but we must start the process. Through widespread action progress is possible at multiple levels
82 and scales.

83
84 The need to rethink gatekeeping is also evident from the current state of what is often referred to
85 as diversity, equity, and inclusion (DEI) work. The past 20 years has seen the growth in DEI
86 goals and programs with key roles played either by early career researchers and/or people from
87 historically excluded communities. When DEI work is done on a “voluntary” basis, it arguably
88 constitutes a form of cultural taxation (Padilla, [1994](#)) especially when done by individuals based
89 on having diverse socio-demographic traits. Moreover, the value ascribed to DEI work varies
90 widely with some institutions considering it meritorious, while others consider it a distraction
91 from research productivity (Madden et al 2020). Therefore, in addition to the possibility that
92 such work is viewed negatively within a given institution, vulnerable members of our scientific
93 community might also be at risk for challenging the existing order. Risks may include but are not
94 limited to tenure denial, promotion denial or promotion delay. Hence, an important opportunity
95 is to leverage the privilege of colleagues who may be willing to act as advocates or as champions
96 for advancing DEI priorities. A benefit of shared effort is wider visibility of a team committed to
97 breaking down barriers for everyone (e.g., through diverse and inclusive leadership, Cf. Pierce et
98 al., 2020). We suggest that universal values of trust and reciprocity when establishing
99 partnerships will signal something larger than lone agitators, while also deepening collegial
100 relationships, what we think of as a “culture shift” in a direction that engenders regeneration.

101

102 **Our proposal: Regenerative Gatekeeping**

103 Academic research provides relevant context for our proposition. Some argue that diversity in
104 the workforce is beneficial in the business sector (Herring, 2009; Kochan et al., 2003), and
105 specifically in effective problem solving (Hong and Page Scott, [2004](#)). Existing academic
106 literature about gatekeeping as a scholarly term has early roots in sociology (Broadhead and Rist,
107 1976) and journalism (White, 1950; Janowitz, [1975](#)). Recent years have witnessed a substantial
108 expansion in the scope of gatekeeping research from the labor market (e.g., Faulconbridge, [2009](#))
109 to language translation in medical discourse (e.g., Davidson, [2000](#)). Recent research has sought
110 to expand the origins and definitions of gatekeeping as a well-established scholarly concept to
111 move common assumptions from social fields to networks (Deluliis, [2015](#)).

112

113 The perspectives of social scientists are essential to help us think differently about ourselves and
114 our roles in STEM committee work. For example, through an understanding of how innovations
115 arise, and how humans interact, we might discover new avenues for regenerative gatekeeping.
116 An example where social science research might shed light is with the gatekeeper bias in [hiring](#),
117 when “...employment decision is based on the decision maker’s perceived preferences of the
118 existing employers or co-workers with whom the new employee would be working.”

119

120 Additionally, by thinking of gatekeepers in positive and holistic ways, we can imagine new
121 definitions for this term that can help make the Earth and space sciences more welcoming,
122 inclusive, and accepting of who we are and what we have to offer. Recent social science research

123 by Sovacool et al., (2020) describes varied functions for the concept of “intermediary
124 gatekeepers,” including applicable roles for STEM committees: policy implementation,
125 networking, brokering, visioning, and standards development. Another view is offered by
126 Beronda Montgomery who challenges the entire concept of gatekeepers as a traditional approach
127 and proposes a more expansive groundskeepers (Montgomery, 2020) that pay attention to how
128 individuals are situated within the whole ecosystem of an organization, similar to how we think
129 about how to cultivate a plant. Finally, yet importantly, a 2021 effort looks at how to make
130 humane indicators of excellence in academia or what they coin a [values-aligned academia](#). In a
131 white paper, this multi-institution effort offers provocative entry points like “[c]reate better and
132 more consistent ways to track what is now often invisible labor to ensure equity.” In doing so,
133 research, teaching, and service are presented as interconnected domains resulting in complicating
134 mainstream faculty narratives, making it difficult to evaluate “merit” using the existing metrics.
135 Achieving diversity goals and ensuring regenerative gatekeeping within our work environments
136 and in our research communities will require finding ways to acknowledge invisible labor and
137 support values-based metrics.

138

139 We acknowledge limitations for regenerative gatekeeping. Will the interest by one person or
140 entire committees generate change? Only time will tell, but we think it is worth trying. The
141 regenerative gatekeeping we advocate is situated in context of the climate in the geosciences
142 recently described as an “obstacle course” (Berhe et al., 2021). A related and specific piece from
143 this obstacle course context is the cost of “invisible labor” for instance by trainees, graduate
144 students and postdoctoral scientists, and others based on their diverse backgrounds. Last but not
145 least, if the priorities in your committee or organization do not center diversity and inclusion then
146 the regenerative gatekeeping framework proposed will likely face challenges.

147

148 **What Can You Do to Achieve Regenerative Gatekeeping?**

149 Our call for individuals to initiate this widespread regenerative gatekeeping work acknowledges
150 that language can be inspiring. The goal is a healthy and supportive community in Earth and
151 space sciences and recent progress reveals that many individuals are keen to help. The
152 groundswell of interest is clear from contributions ranging from: strategies for individual and
153 collective actions (Behl et al., 2021) to cultivate a more welcoming climate in the coastal, ocean,
154 and marine sciences; to acknowledging the value of discussion groups (Ormand et al., 2021); to
155 fostering the coproduction of research with local communities, such as the concept of "equitable
156 exchanges" (Harris et al., 2021); and to documenting the altruistic motivations of young people
157 poised to join our community (Carter et al., 2021). Of course, there is more, much more to be
158 done in terms of racial/ethnic identity (Dutt, 2020), disabilities and access to the field (Atchison
159 et al., 2019), and gender identity (Ranganathan et al., 2021), to name a few. Despite progress on
160 gender parity, for example, women in Earth and space science still face many barriers.
161 Dismantling these barriers would allow women to “thrive and not just survive” (Hastings, 2021).
162 Steps in this direction include the [Earth Science Women’s Network](#), [Geosciencewomen.org](#), and

163 the [Society for Women in Marine Science](#). Analogous community-driven groups with a focus on
164 race/ethnicity include [Black in Marine Science](#), [GeoLatinas](#), [Geoscience Alliance](#), and [Asian
165 Americans and Pacific Islanders in Geoscience](#). We join this wave by offering what we hope is
166 empowering language that gives new meaning to much of our day-to-day work. Ultimately, we
167 hope to invite many more members of our Earth and space science community to rethink
168 committee work.

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171 **Case Studies**

172 The following cases offer real life examples of regenerative gatekeeping in action in Earth and
173 space sciences. These are work in progress and like anything that is changing over time and
174 space, these cases are evolving and ongoing. Drawing from three case studies, committees can
175 change the way that leadership views the impact of committee work, and to the way committees'
176 function in relation to diversity and inclusion both in theory and in practice. In particular, this
177 framework consists of one or more of the following: 1) self-assessing policies and practices, 2)
178 asking critical questions and 3) engaging in generative conflict. In implementing these changes,
179 this reframing of committees is something that should be done within the committees
180 themselves, and within the whole academic community and the entire STEM enterprise.

181
182 We find three recent efforts in Earth and space science exemplify how regenerative gatekeeping
183 can be applied in the STEM research enterprise. The first case is a mature example from a large
184 public institution, Oregon State University's [Search Advocate Program](#). This program aims to
185 remove bias during the faculty search process through a workshop series that promotes what we
186 consider regenerative principles in the hiring process. The theoretical foundation for the program
187 draws from current research about implicit bias and diversity, information about the changing
188 legal landscape in hiring, and an overview of inclusive employment principles. The novelty of
189 the program is that it trains Search Advocates to function as external search committee members
190 that can probe assumptions, norms, and practices that an internal member might not
191 question. We see this as regenerative gatekeeping. The second example, rooted in research on the
192 power of [role models in STEM](#) and more broadly (Gibson, [2004](#)), and maximizing their impact
193 (Gladstone and Cimpian, [2021](#)), comes from Keisling et al., ([2020](#)) who describe graduate
194 students taking over seminar planning responsibilities at the University of Massachusetts at
195 Amherst to invite more diverse speakers. By rethinking gatekeeping, this example highlights the
196 power of challenging the status quo maintained by senior faculty. The new arrangement yielded
197 a parallel seminar track embraced by the administration, and an opportunity for senior faculty to
198 become champions to diverse early career researchers. The third example emerges from a large
199 membership based professional society and the recommendation of "canvassing committees" by
200 experienced members acting in an honors and awards committee (Holmes et al. [2020](#)). A
201 canvassing committee is a successful approach to search for potential awardees mainly to
202 increase the number of nominations, rather than what the selection committee is charged with,

203 which is to identify the most-deserving candidates. Some organizations have moved beyond
204 voluntary committees into hiring staff to formalize these roles.

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207 **Key Questions for Committees**

208 The regenerative gatekeeping framework requires us to ask critical questions, and think about
209 how widely distributed actions might support transformation. A few questions to consider in
210 committee work might include: Has the committee integrated diversity and inclusion definitions,
211 goals and/or actions? Can committees offer secure (or safe) spaces for affinity groups (Anderson,
212 2021) or accessibility services? Do particular committee service burdens fall disproportionately
213 on historically excluded community members? What kinds of data are needed for accountability
214 and understanding about outcomes and processes? Do our metrics assess qualities that lead to
215 success and what constitutes evidence? What qualities are not being considered (e.g., grit,
216 resilience, evidence of leadership, inclusive diversity excellence, lived experience, ways of
217 knowing)? Do our metrics reflect our values? What are our key values? Do values reflect
218 diversity and inclusion? These examples are not exhaustive and each committee can customize a
219 set of questions that best reflect their shared goals. We also recommend sharing resources among
220 groups to proliferate learning and growth on these topics.

221

222 **Conflict of Interest Statement**

223 The authors declare no conflicts of interest relevant to this contribution.

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