

Community recommendations by the P5 Panel

Panelists: Sudhir Malik (UPRM), Julie Hogan (Bethel), Erin Hansen (SLAC), Tulika Bose (Wisc), Sarah Eno (UMD)

The P5 report contained 5 recommendations regarding community. DPF is a grass-roots community organization. As such, we can work together to further goals of interest. **We will discuss what we, as such a community, can do to further the P5 recommendations** starting with brief presentations of each recommendation.

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A Technologically
Advanced Workforce
for Particle Physics and
the Nation

Addressing the profound scientific inquiries within particle physics, from understanding the fundamental building blocks of nature to mapping out the evolution of the universe, requires a creative and technologically advanced workforce operating within an environment of mutual trust. The inherent curiosity driving our exploration of the natural world is a

Resources:

[P5 recommendations on community](#)
[Climate of the Field](#)
[Community agreements paper](#)
[Accessibility paper](#)
[PUI/CC paper](#)
[PURSUE paper](#)
[Latest PURSUE paper](#)
[Community survey report](#)
[public outreach paper](#)

Valerie Aurora and Mary Gardiner. How to Respond to Code of Conduct Reports. Frame Shift Consulting LLC, 2019.

Recommendation: All **projects, workshops, conferences, and collaborations** must incorporate ethics agreements that detail expectations for professional conduct and establish **mechanisms for transparent reporting, response, and training**. These mechanisms should be supported by laboratory and funding agency infrastructure. The **efficacy and coverage of this infrastructure should be reviewed** by a HEPAP subpanel (presented by Erin V. Hansen)

Institutions (labs / universities) have ethics agreements, but

- Policies are not consistent between institutions.
- Policies depend on who is employed where, and where incidents take place.

Not every ethics agreement / code of conduct is useful → and many are actually doing more harm than good!

Relying on institution policies is not enough — there are too many gaps.

Making change is an iterative process.

Communities should review their ethics agreements / values statements regularly, with input from experts.

Ask:

- Does the workshop I'm organizing have an ethics agreement?
- Does my collaboration acknowledge the need for this?
- Do I know who to contact in the case of an incident?
- Where can incidents fall through the cracks?

Ask:

- Are vulnerable members of my community *actually* protected by this document?
- How are incidents investigated, and who is responsible for establishing an appropriate response?

Ask:

- Were experts consulted when this agreement was constructed?
- Are members of leadership making these values a priority?
- Do community members feel the ethics agreement is effective? Are they invested in its success?

Recommendation: Funding agencies should continue to support programs that broaden engagement in particle physics, including strategic academic partnership programs, traineeship programs, and programs in support of accessibility. A systematic review of these programs should be used to identify and remove barriers. (presented by Sudhir Malik)

Academic preparation

- How to attract talent to HEP, aggressive and organised K-12 outreach
- Graduate programs in particle physics should normalize training for a broad range of STEM careers with appropriate formal courses, rather than self-teaching or peer learning
 - Provide strong grounding in particle physics, mathematics, computation, statistics, instrumentation and benefit careers in physics, industry or education
 - Provide undergraduate students info on what particle physics trained researchers do, common career paths post baccalaureate and post graduate school should be presented, including for theoretical and experimental positions as well as non-academic careers
 - Masters Degree programs in particle physics and related areas, such as hardware and software technology for Big Science experiments.

Diverse Workforce

- Expand faculty collaboration and research opportunities, ease of R2/PUI/CC faculty and students to collaborate with HEP for a more diverse workforce
- Software Training programs and Open Science activities can attract talent in HEP, STEM industry jobs
- Qualification for HEP faculty jobs should not be based solely on physics analysis but must be expanded to include computing, software and/or hardware contributions, change in attitude needed

Career preparation

- More and early mentor/mentee interactions and planning for mentee's career
- More lab/experiment/HEP alumni interactions for better career opportunities, better portal for communications with the alumni
- More targeted internships or training programs in the areas of Accelerator Technology, Computer and Information Science, Detector and Engineering Technology, Environmental Safety and Health and Radiation Therapies, expand access to industry-focused training to students and postdocs
- Funding agencies and supervisors should evaluate funding rules and regulations to allow HEP students and postdocs to pursue industry-focused training that can be integrated with their core research curriculum.

Recommendation: Comprehensive work-climate studies should be conducted with the support of funding agencies. Large collaborations and national laboratories should consistently undertake such studies so that issues can be identified, addressed, and monitored. Professional associations should spearhead field-wide work-climate investigations to ensure that the unique experiences of individuals engaged in smaller collaborations and university settings are effectively captured. (presented by Tulika Bose)

Climate studies are crucial for recruitment (e.g. identifying barriers to participation) and retention (e.g. why do some people leave our field)

- How community contributions are valued in our field (e.g. contributions to operations, technical tasks such as software & computing etc.) ?
 - How are engineers, technicians, computing professionals etc. included ?
- How is leadership chosen, how are prizes awarded ?
- How easy it is for new people to join ? What is the onboarding process like ?
- How are different perspectives and needs taken into account ?
 - For early career as well as all career stages
- How transparent and inclusive are the decision-making processes ?

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As members of the community, we can encourage our institutions/collaborations to conduct climate studies and actively participate in the process ourselves

- Encourage organizers to engage with social scientists for design of surveys
- Respond to surveys and explore how to increase response rate
- Help develop and/or implement recommendations
- PIs should communicate these activities within their groups
- Volunteer to help periodically assess impact of changes and monitor progress

Work with professional societies and community organizations (e.g. DPF) to include smaller collaborations and groups

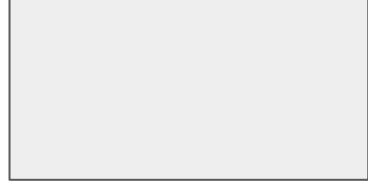
- Encourage people to join DPF, participate in its activities, nominate for DPF Exec Com positions...
- Help develop community guidelines, best practices (e.g. for workshop organization, accessibility)
- Engage with community organizations (e.g. w/ HSF to help develop experiment-agnostic training modules to lower the onboarding burden, make them accessible to a larger community of students)...

Recommendation: Funding agencies should strategically increase support for research scientists, research hardware and software engineers, technicians, and other professionals at universities. (presented by Sarah Eno)

This is a topic near and dear to my heart. I was on the wrong side of this back in the early 90s, when this funding was first reduced. At the time, reducing the number of technical people seemed a way to maintain the number of students and postdocs with a decreasing budget. Funding engineers etc off the project instead of off grants was a way to make sure their work was aligned with funding agency mandates.

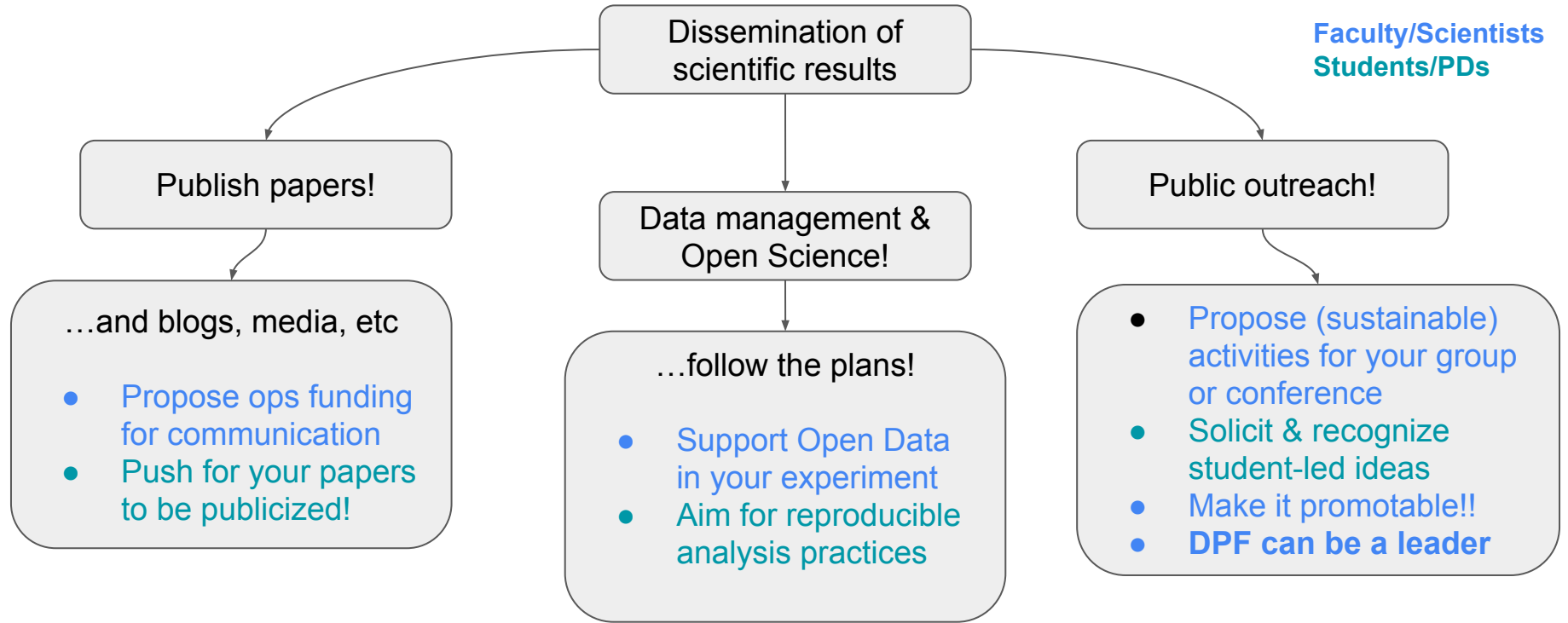
It is clear (to me) now that I was wrong. This has had a large negative impact not only on current operating experiments, but also on our ability to plan our long-term future. Research scientists were also key mentoring our students on technical skills essential to great careers in industry.

The DPF community (all of us) cannot control agency funding priorities. However, we can show our valuing of this key, high impact community in other ways.



- Continually point out to the funding agencies that productivity could be increased if a larger fraction of our workforce had the confidence that comes from increased job security. Many of our top scientists would prefer this path and funding such positions will retain them.
- Encourage all members of your team, not just faculty, postdocs, students, to join APS and DPF so that they receive our invitations directly.
- Encourage your collaboration to involve technical people in more of the collaboration community and governance.
- Encourage them to come to DPF meetings and present parallel talks on their work so can share their key contributions and receive appropriate acknowledgement of the impact, and see how their work impacts other areas of the experiment.
- Think about a prize for contributions from this community (but how to raise the endowment and find people willing to serve on the prize committees)
- Setup some kind of mentoring system for young members of this community? Or a special workshop for them to gather and network?
- Pathway talks at conferences to show them how to thrive in this role
- Have a panel at a future DPF meeting with members from this community to discuss their impact on our work?
- What are your ideas? Let's hear them in the discussion part of this panel.

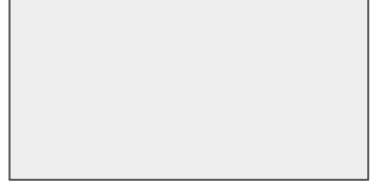
Recommendation: A plan for **dissemination of scientific results to the public** should be included in the proposed **operations and research budgets** of experiments. The funding agencies should include funding for the dissemination of results to the public in operation and research budgets. (presented by Julie Hogan)



Faculty/Scientists
Students/PDs

This recommendation is a 2-way street – we practice new disciplines of dissemination & clearly request required funds, agencies are encouraged to support this on-mission goal

backup



APS Code-of-Conduct Process

- APS has been working on the process: presented at the APS Council Meeting in mid-April

Our Ethics Journey



How to Use APS

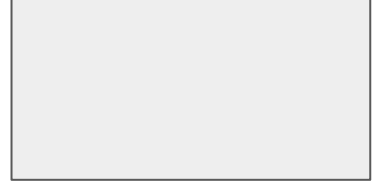
Response & Prevention – Raising Ethical Concerns

Need to Report an Ethics Concern to APS? You may choose any one of the following reporting channels:

- Online: aps.ethicspoint.com
- Phone: 844.660.3924
- Email: ethics@aps.org
- Head of Meetings: clemens@aps.org
- Head of Ethics: nelson@aps.org

All persons filing a complaint using our confidential, easy-to-use reporting options should be prepared to check back with the channel to respond to any follow up questions about their report. Be sure to include a complete description (who, what, where, when) of the conduct experienced or incident that is the basis of the report.

If you report anonymously, we may be limited in our ability to respond, meet your desired resolution and/or keep you updated on the status of your complaint.



Comments:

- Complaints made to DPF (for example at this meeting) will now go to APS as well.
- This does not prevent us from taking action, but automatically sending the complain to APS *does* memorialize the complaint and at least begins to address the issue of “serial harassers.”
- APS does have a well-defined and thorough investigation process for incidents at APS (including DPF) meetings.
 - APS needs *findings* from investigatory bodies for things that happen at non-APS meetings. These can be difficult, if not impossible, to obtain.