

Society Agility Council
April 29, 2022, 2:30 pm Zoom meeting

Participating	Unable to Participate
Susan Troler-McKinstry , Chair	Natalie Larocco, MRS Liaison, IES
Shef Baker , Publications	
Babu Chalamala , Topical Staging Subcommittee	
Lincoln Lauhon , Meetings	
Julia Phillips , Topical Curation Subcommittee	
Paul Drzaic , Industry Engagement Subcommittee	
Ashley White , Focus on Sustainability	
Bryan Huey , Spring/Fall Differentiation	
Eileen Kiley , Director of Programs	
Gopal Rao , Chief Editor for Technical Content	

Action Items

Lincoln and Eileen	Work with MASC on defining success for Biomaterials Staging Task Force
Babu	Take feedback from SAC to Autonomous Materials Task Force and report back to SAC
Babu and Shef	Discuss Publications metrics
SAC members	Let Julia and TCSC know if a topic has fallen off the MRS radar

Agenda

Welcome Bryan Huey – Fall/Spring Differentiation
Update from Topical Staging – Babu
Follow up on Topical Curation – Julia, Eileen, Gopal, Lincoln

SAC Chair Susan Troler-McKinstry opened the meeting by welcoming Bryan Huey, who will be exploring the topic of Fall/Spring Differentiation.

Babu Chalamala, Topical Staging Subcommittee

Babu delivered a slide presentation on TSSC progress to date.

Biomaterials, Jonathan Rivnay, Chair

Biomaterials has a lot of symposia, a sign that TSSC has accomplished what it was directed to do. We have not assessed specific metrics to determine whether this staging group is successful.

Biomaterials got a 2-year extension on its original 2-year term; it's time to evaluate its success so other topics can be groomed. The Meetings Assessment Subcommittee would need a definition of its success in order to measure it. HQ is asked to provide information on biomaterials symposium attendance: did it change since 2017 and by how much?

How can we transition this and call it a success soon? Is it self-sustaining? Does it have critical mass?

Things that are easy to measure:

Attendance

Proposals: 10 out of 11 proposals came in bottom up.
This community views MRS as its home.

Director of Programs Eileen Kiley and Meetings Committee Chair Lincoln Lauhon will work with MASC on what can be measured to define success in the Meetings area for Biomaterials. For example:

- More proposals are being received than can be accepted.
- How many attendees does the topic bring in?
- Who are the new attendees in that area compared to other areas?
- Is it stabilizing, declining, hot?

In terms of programming, Babu defines it as a growing area.

Has the area been captured in publications? The group has had Publications discussions.

There is industrial engagement with synthetic biology and medical applications. If this topic views MRS as its home, Industry Engagement Subcommittee Chair Paul Drzaic views that as an introduction to industry flavor.

Topical Curation Subcommittee Chair Julia Phillips commended the good uptake in Meetings. If there is a steady stream of content that's pushed by the membership or community, that can be a sign it might have graduated but doesn't take it off the radar screen. There are things that that TCSC can track.

Lincoln noted that Biomaterials may have achieved critical mass at the cluster level, if it's getting more proposals than it can accept. This might require more care at the symposium level. The chair of a particular staging group who's stepping down can provide written guidance for PDSC or TCSC for what should get attention over the next 2-3 years. Documentation that identifies key individuals who brought Biomaterials to this stage can prevent a loss of momentum.

Quantum: Jeff McCallum, Chair

Jeff, as new Chair, is taking ownership. Quantum is gaining traction and is close to being self-sustaining and ready to graduate.

Are numbers the metric? Symposia of a particular breadth might need a certain number, but if it's broader then fewer might be needed. Are there gaps between symposia so that people who have been coming can't find a place to submit a paper? It's easy for quantum to find another place to go.

What is the total number of attendees as opposed to number of symposia?

Paul isn't getting a lot of commonality in the industry interviews he's having, but quantum computing is what's being mentioned. He's gotten soft commitments that these people can contribute to what might be areas of interest. Could MRS carve out selective applications where MRS could become a home?

Two areas:

- 1) Quantum for materials
- 2) Materials for quantum

Chief Editor for Technical Content Gopl Rao noted that when the staging group was formed, a distinction was made between materials for quantum computing.

What topics need to be captured? The Quantum group is fairly robust for devices. Jeff is trying to add in applications. The group is hoping for a better sense of how to move forward after the May 8 workshop at the Spring Meeting.

Susan knows of between 6-8 active DOE EFRCs on quantum materials. Some look like computing, some don't. Susan would encourage this because it's a rich pool that goes beyond quantum computing. IEEE could be a potential area for an MRS partnership. Would ACS would be a potential partner?

Quantum is driven by funding and rebranding of what might have shown up in a different past symposium. Is the new NSF directorate a future direction to get ahead of parallel organizations? Being in parallel is fine but connecting to the new directorate could be the future. Susan agreed this is food for thought for the larger committee.

Artificial Intelligence: Keith Brown, Boston University, Chair

Closer to graduating as a group but challenges exist because it's diffuse without a core group.

How to have a sustainable symposium?

Susan asked:

1) Has there been interaction with facilities that have major AI programs as part of the user facilities? Babu doesn't know because there haven't been in-person meetings.

2) Sandia had materials efforts where AI was an enormous focus of their activities. Is Jeff Nelson in this group? Babu agreed this is a discussion that might be worth having with Keith because this Task Force doesn't have those names.

How well are MRS Meetings aligned with goals of this new directorate?

Who does MRS want to engage with demographically?

Maturing AI will be different from how to mature another topic. Lincoln proposed letting the AI Task Force define what they view as success and comment on it to SAC.

Publications

How to fully engage and transition some of the content. There's good progress.

Autonomous Materials, Rob Shepherd, Chair

Needs a lot of handholding and help. Serious work is in progress. Initial efforts are just beginning.

What do they mean by autonomous materials? Is it haptics, sensors? It's beyond soft robotics. This is part of what presents a challenge.

How does this topic fit into the scheme of things? The effort is to make sure the Task Force has a broad global engagement.

There's a lot of money in the academic community but the industry range of contacts is narrow.

Babu will take the feedback to the group and report back to SAC at the next meeting.

Babu is requesting information on how to tell if there has been success from the Meetings. But what constitutes success from the Publications perspective and what are the metrics?

Publications Committee Chair Shef Baker says more high-quality publications that represent the Meetings are needed.

Shef doesn't know that there are metrics that constitute success specifically from the Pubs side.

1) JMR has a clear plan to develop. Gary Messing created a table of topics structure. An associate editor is in charge of that topic. A clear metric for SAC would be to determine whether those topics have been successfully generated in JMR. Is there an associate editor connected with it?

2) MRS Advances produces volumes based on Meetings topics. If Topical Staging has a group to promote, they should appear as a topic in Advances.

Babu and Shef will have an offline conversation to reinitiate the conversation.

Lost Communities

Can Topical Staging be used to bring back lost topics or those not at leading edge?

An ability to get information about things that left the programming is needed in order to make an intentional decision on whether they should be included or not.

Lincoln sees this as an example of what capability is needed to answer these questions. What has been done in the past? Getting a list of all previous symposia is possible; figuring out how they fit together is a huge research project. Is it possible to do automated clustering or classification?

Is the Staging Task Force the mechanism?

Susan said that SAC needs to determine how to naturally re-engage with topics that have been lost. If the Meeting Chairs can't do it, it may come back to Topical Staging.

Julia asks individuals who are aware of what has fallen off the radar to let TCSC know because there isn't a formal mechanism to figure it out.

What scale—cluster or symposium—is meant by reconnecting with lost communities? Whether topical staging is a vehicle is contingent on the scale.

What is the archetype for lost communities? That requires a serious discussion.

Bryan asked what are the boundaries for how many clusters might get added? As a Meeting Chair, he was told that space is limited. Does re-engaging displace other symposia? What's the space for top-down programming? The balance between top down and bottom up programming is 10%. Is that literally space and capacity limited or a strategic way to step into the concept?

SAC will meet again after MASC has had time to finish the S22 Meeting assessment. When MTGC has a meeting that delves into differentiation, Bryan will be invited.