Connection Experiments:
ESIP’s Summer Meeting Experience
Building Connections in Virtual Spaces

Erin Robinson,
ESIP Executive Director

Image Credit: National Geographic
Image Credit: NASA

Supported by:
esipfed.org | #ESIPfed
ESIP VISION

To be a leader in promoting the collection, stewardship and (re)use of Earth science data, information, and knowledge that is responsive to societal needs.
Brain trust of Earth science data professionals

Supported by:

Multiple Science Domains

users
application developers
tool & system developers
data archives
data providers

Academia

Corporate

Cross-Agency
<table>
<thead>
<tr>
<th>Types of ESIP Partners</th>
<th>Type I</th>
<th>Type II</th>
<th>Type III</th>
<th>Type IV</th>
<th>Type V</th>
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</thead>
<tbody>
<tr>
<td><strong>Data and Information Distributors, Repositories, &amp; Archive Centers</strong></td>
<td><img src="image" alt="NCEI" /> UNAVCO BCO-DMO</td>
<td><img src="image" alt="AGU" /> AuScope ISGCI CSIRO</td>
<td><img src="image" alt="esri" /> UNM University Libraries</td>
<td><img src="image" alt="NASA" /> NOAA USGS</td>
<td><img src="image" alt="EarthCube" /> OGC</td>
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<td><strong>Product &amp; Service Providers</strong></td>
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<td><strong>Earth Science Applied Service Providers</strong></td>
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<td><strong>ESIP Sponsors</strong></td>
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<td><strong>Collaborative Data Networks</strong></td>
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Plus 140 more...
ESIP does not:

- Provide data
- Sustain cyberinfrastructure
- Compete with our members
- Develop standards

INFORMATION INTEROPERABILITY STACK

Generate recommendations and work products.

Have a lasting impact in the recommendation of standards.
THREE APPROACHES

VIRTUAL COLLABORATION

Facilitate professional development, outreach, and collaboration opportunities.

Seed innovation and community-generated best practices.

Provide funding for prototyping, experimentation, and skill development.

IN PERSON MEETINGS

ESIP LAB
ESIP BACKBONE
TRADITIONAL MEETINGS
WHAT MAKES ESIP MEETINGS DIFFERENT

- Plenaries
- Breakouts
- Networking Time
- Unconference Time
- Co-located Events
ESIP MEETINGS

ESIP in-person meetings, held twice each year, help individuals network, share expertise, and make progress on data-related challenges. Meetings are open to all and typically draw 300 attendees from diverse backgrounds.

WHY DO PEOPLE ATTEND ESIP MEETINGS?

- Networking: 80%
- Professional Dev: 60%
- Business Dev: 40%
- Idea Exchange: 20%
- Funding Opps: 0%
- Find Collaborators: 20%

Yes, 92% have formed collaborations with other meeting attendees.
WHAT THE ESIP COMMUNITY SAYS ABOUT OUR MEETINGS

- I found my [Earth science data] people.
- Highly skilled people who are a good sounding board for ideas.
- A serious meeting that actually performs a function – the data are slightly more interoperable at end of the meetings.
- Hardest questions I ever got were at ESIP.
- ESIP is a gathering place for other groups to convene and co-locate their meetings. Co-located meetings are coveted slots!
- Clear professional ‘home’ for earth science data people.
March -
• Begin contingency planning
• March 13 – Cancelled ESIP-supported meeting planned for April 14-16
• Moved EarthCube Annual meeting to virtual

April
• ESIP Board met and moved next 2 ESIP conferences to virtual
• Researched Virtual Platforms
• Researched Fee structures
• Cancelled second ESIP-Supported Meeting

May
• Reworked our FY20 Budget
• Created registration structure for ESIP Summer 2020
• Supported EarthCube Annual Meeting

June
• Board approved FY20 Budget revision
• Trained session leaders in both tech and new facilitation skills
Questions

Evaluation framed around three guiding questions:

• EQ1: To what extent did the meeting achieve its goals of providing a successful venue for the exchange of knowledge, content, and discoveries about Earth Science and Earth Observation?

• EQ2: To what extent did the online format impact the conference experience?

• EQ3: What are the key takeaways that can productively inform the Winter, 2021 virtual meeting, helping ensure its success, and possibly the future of other ESIP meetings, virtual or in-person.
Key Data Sets

- Background inventory, discussions with leadership, design documents
- Attendance at 18 sessions and plenaries, research showcase
- Session feedback (smiley forms, n= 389) and participation data
- Surveys: Mid-point satisfaction (n= 71), Final (n= 101)
- Three focus groups (n= 19)
- Individual interviews (n= 10): ESIP though leaders, conference veterans, new attendees, presenters
Meeting Tech & Design
Liberating Structures

http://www.liberatingstructures.com/
## MEETING AT-A-GLANCE

<table>
<thead>
<tr>
<th>Week 1</th>
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<tbody>
<tr>
<td><strong>Day 0 - Monday July 15</strong></td>
</tr>
<tr>
<td>Biostandards Workshop</td>
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<tr>
<td>Developing Community Guidelines for Consistently Curating and Representing Dataset Quality Information</td>
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</table>
## MEETING AT-A-GLANCE

### WEEK 1

<table>
<thead>
<tr>
<th>Day 0 - Monday July 15</th>
<th>Day 1 - Tues July 14</th>
<th>Day 2 - Wed July 15</th>
<th>Day 3 - Thurs July 16</th>
<th>Day 4 - Friday July 17</th>
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<tbody>
<tr>
<td>Biostandards Workshop</td>
<td>Welcome &amp; Plenary</td>
<td>Breakout Sessions</td>
<td>Plenary</td>
<td>First Friday Event</td>
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<tr>
<td>Developing Community Guidelines for Consistently Curating and Representing Dataset Quality Information</td>
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<td>14:00 Breakout Sessions</td>
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### WEEK 2

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<tr>
<th>Day 5 - Monday July 20</th>
<th>Day 6 - Tues July 21</th>
<th>Day 7 - Wed July 22</th>
<th>Day 8 - Thurs July 23</th>
<th>Day 9 - Friday July 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30 Plenary</td>
<td>11:30 Breakout Sessions</td>
<td>11:30 Plenary</td>
<td>11:30</td>
<td>11:30 FUNding Friday &amp; Call to Action Sendoff</td>
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<td>13:00 Break</td>
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<td>16:00 Breakout Sessions</td>
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<tr>
<td>17:30 End of Day 1</td>
<td>17:30 Break</td>
<td>17:30 End of Day 3</td>
<td>18:00 Breakout Sessions</td>
<td>Special Event</td>
</tr>
<tr>
<td>18:00 Australian Plenary</td>
<td>19:30 End of Day 2</td>
<td>Meeting Logistics</td>
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</tr>
</tbody>
</table>
MEETING TECHNOLOGY

2019 ESIP Summer
10,831 Views
2,863 Downloads

@Esipfed
#ESIPFed

https://esipsummermeeting.qiqochat.com/

ESIP.FIGSHARE.COM/SUBMIT

BIT.LY/sm20takeaways
PUTTING DATA TO WORK
2020 ESIP Summer Meeting
July 14-24 | ONLINE!
esipfed.org/sm2020 | #esipfed

ESIP SUMMER MEETING
Homepage
ESIP Summer meetings bring the Earth science data and informatics community together every July to discuss current trends, problems and emerging issues in the field.

Parent Circle: ESIP
11:30 AM ET: Opening Plenary & Raskin Award Presentation

***Come here for help or use Live Chat!***

Join Video for Plenary

2ET - ESIP Public-Private Partnership Cluster

Daily Announcements

- Once you are in the Meeting Room, you must click the big green button on the top "Join Video for Room". This will launch a Zoom meeting.

PUTTING DATA TO WORK

2020 ESIP Summer Meeting
July 14-24 | ONLINE!

research showca

Thanks to: AGU100

About:
Welcome to Hallway Conversation Hangout!
Miss the informal networking with your colleagues? This is the place! Scroll down to find a host of open spaces to start a new group or join a hangout with others already there. Don’t forget to press, ‘enter’ on your hangout of choice, the picture will change and then the green button to join the video if you want to talk.

Quick instructions / troubleshooting

Join Video
Or stroll the other gardens below.
Our first virtual group photo…

While we are waiting to start, please add your picture to your Qiqochat profile.
<table>
<thead>
<tr>
<th>Name</th>
<th>I am glad to offer/share...</th>
<th>I'd like help/collaborators on...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megan Carter</td>
<td>Collaboration Support, Community Management Techniques</td>
<td>all things concerning data and software sharing, citation, and credit. Specifically connecting those searching with those doing -- ESIP being a really important community for the Earth, space, and environmental sciences.</td>
</tr>
<tr>
<td>Shelley Stall</td>
<td>current status of the ongoing work coming from the Enabling FAIR Data project with the journal and repository community now being carried on by efforts in ESIP, FORCE11, and RDA.</td>
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</tr>
<tr>
<td>Lucas Cioffi</td>
<td>As the founder of QiqoChat, I am happy to share my lessons learned as an entrepreneur and software developer.</td>
<td>introductions to organizations that need to move an in-person conference online.</td>
</tr>
<tr>
<td>Erin Robinson</td>
<td>Community management, virtual collaboration,</td>
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<tr>
<td>Tamara Ledley</td>
<td>I can facilitate a Climate Solutions Workshop or a World Climate Negotiation Simulation game.</td>
<td>getting Earth science data into the hands of teachers and students to help them develop a deeper understanding of Earth science and technical skills they will need in their future careers.</td>
</tr>
</tbody>
</table>
Technology Use

- Zoom easiest
- Qiqochat least easy, but still rated 72% ease of use
Pre-Meeting Connections
ESIP Summer Meeting Tech Training

We’re convening these ESIP Summer Meeting Tech Training sessions to support ESIP Summer Meeting Session Leaders as we convert the 2020 ESIP Summer Meeting from an in-person conference to a virtual conference. We want to bring leaders together for peer-to-peer learning and build skills that will amplify the effectiveness of the content that you are planning. The calls focus on running online meetings and light facilitation support to ensure that we make connections during the ESIP meeting and it’s not just a string of one-way webinars. You can register here (optional).
ESIP Session Convener
Facilitation Workshop
Charley Haley (charley@back-loop.com) & Fisher Qua (fisher@back-loop.com)
Small Group Intro

Hi -

The ESIP Meeting starts TOMORROW!

I have said a number of times, this ESIP meeting will be different and one of the key ways it will be different is that you won't sit quietly at home passively listening to a webinar without meeting another person. I hope you will make real connections and the first way I am doing that is by sending you a real email to introduce you to 6-8 other people in small groups.

**Small Groups:** I have created 56 groups where I mixed attendees to ensure there are members that are new to ESIP and returning to ESIP meetings, ESIP leaders like a Board member, collaboration area leader, community fellow or staff members. There are a variety of career stages mixed into this group as well. You can think of this like the random people you sit down with at a meeting. You don't have to do anything with this group and this is where my coordination stops. You may never see them again and they might become your next collaborator. That said, I thought likely there will be one of you that will jump in and say hello.

Your group is included below:

Three other quick ideas for your group:

* Reply all to this note with a quick hello and a bit about how you got involved with ESIP and maybe a link to your gיכוач chat profile
* If you are leading a session you'd like to share or have contributed a poster to the research showcase - please tell this group!
* Pick a coffee break and one of the Hangouts (scroll down to see the list) in Qīcōqū and meet virtually in real life!
During Meeting Connections
MEETING BY THE NUMBERS

- 8 Plenary Sessions
- 196 First Time Attendees
- 39 Research Showcase
- 56 Teachers
- 20 International Attendees
- 60 + Sessions
- 168 + Speakers
- 512 Attendees!
Shape of participation

- Strong beginning of each week
- Week 2 begins at 67% of week 1
- Green: Plenary
- Blue: Breakouts
The Good

- People attended ~ 2 sessions a day
- People made at least 1-2 new connections and many made more than that
- Liked Zoom breakouts & interactive, facilitated sessions
- Liked session content - avg Sched rating = 9.4
- Going better than expected.
- We are learning.
ESIP MID-MEETING FEEDBACK

The Could Be Better 😞

- Zoom limitations for some Federal employees
- Confused by Qiqochat/Sched combo
- Missing bumping into people/More team building/social
- More time for discussion/Q&A
- Way to opt out of breakouts
- Emails... too many
- We are still learning

A few more focus group participants needed: https://doodle.com/poll/c7ht25yrrpdr5mqk
Conference Design

Highest approval:
- Clarity of information
- # speakers per session
- Conference hours
- # sessions per day

Lowest approval:
- 2 week time frame
- Online fatigue
Session Qualities

All agreement high

Highest rated:
- Rich and varied sessions
- Relevance of sessions
Operational

Highest rated:
- Hearing and seeing speakers
- Viewing materials
- Contributing comments

Lowest rated (still high):
- Qiqohat
- Finding help
Mid-Final Shifts

Blue: mid-point, Red: final

Improved in week 2:
- ESIP staff help
- Plenaries
- Community welcome

Declined in week 2:
- Zoom breakout quality
- Personal interactions
Post-Meeting Connections
We use the meeting website to link to:

- **Submit to ESIP Figshare**: [esipfed.org/figshare](http://esipfed.org/figshare)

**MEETING ARTIFACTS**

Session Recordings

Presentations in Figshare

Session Take-Aways

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**Tuesday, July 16 • 2:45pm - 4:15pm**

**Cloud Data Optimization: Emerging Best Practices**

When data is shared in the cloud, anyone can analyze it without having to download it or store it themselves, which lowers the cost of new product development, reduces the time to scientific discovery, and can accelerate innovation. However, staging large-scale datasets for analysis in the cloud requires consideration of how data should be prepared and organized to allow fast, efficient, and programmatic access from distributed computing systems. This workshop provides a forum for members of the community to share lessons learned as they explore ways to use the cloud to expand data access. It seeks to encourage dialog between users interested in leveraging data in the AWS Cloud for research and application development for Earth Sciences.

**View Session Recording**

**Presentations (10 minutes each)**

- **1. Title**: STAC, sat-utils, and Open Data - Prioritizing Data Use (10 min)
  **Presenter**: Dan Pilone (Element 84)
  **Slides**: [https://doi.org/10.6084/m9.figshare.9696446](https://doi.org/10.6084/m9.figshare.9696446)

- **2. Title**: Radiant ML Hub, A cloud based commons for geospatial training datasets (10 min)
  **Presenter**: Hamed Alemohammad (Radiant Earth Foundation)
  **Slides**: [https://doi.org/10.6084/m9.figshare.9121991](https://doi.org/10.6084/m9.figshare.9121991)

- **3. Title**: One data format pattern to rule them all (10 min)
  **Presenter**: Grega Milcinski (Sinergise)
  **Slides**: [https://doi.org/10.6084/m9.figshare.9121991](https://doi.org/10.6084/m9.figshare.9121991)

**Session Take-Aways**

1. Moving to cloud infrastructure offers a chance to reevaluate best practices, though some of these may not be purely cloud-related (e.g., data formats) but the discussions are coming along for the ride!

2. It is unclear who will own the cloud-optimized datasets and it will likely be different from dataset to dataset. Until (if/when) cloud-optimized formats become the norm, they may often be provided by other groups (or created on the fly).

3. There is a lot of focus on datasets in these conversations, but we need to also focus on tooling/services and education.
MEETING HIGHLIGHTS WEBINAR

August 13th at 3 pm ET/12 pm PT

DIDN’T GET A CHANCE TO ATTEND ALL THE SESSIONS YOU WANTED TO?

esipfed.org/webinars
Key Learnings – Pivot

• Making the decision sooner than later allowed us to provide the community certainty

• It was important for us to be able to use some of the tools/systems we had in place for in-person meetings (Cvent, Sched)

• We repurposed our FY20 travel to support facilitation and tech support

• Rethink special events and ways that people will network

• TONS of training

• Feedback & evaluation are more important
Favorite Aspects

Top rated:
- Plenary & Breakouts
- Ability to type contributions
- ESIP staff
- Not having to travel
What was missed
(from F2F)

- Bumping into people
- Moving around

What did you miss?

- Bumping into people: 72%
- Moving around: 14%
- Focus different: 7%
- Energy in room: 7%
Compared with other online conferences

All dimensions were at least as good if not better

Top rated:
- Support
- Quality
- Technology
- Organization
Question 1: To what extent did the meeting achieve its goals of providing a successful venue for the exchange of knowledge, content, and discoveries about Earth Science and Earth Observation?

- ESIP built an online environment to host and manage their annual conference, which by all measures was successful.
- Using the home ‘wrapper’ of QiqoChat provided a site and webspace for 512 attendees to learn, contribute, and interact around issues of Earth Science and Earth Observation.
- The meeting achieved all goals and gained knowledge and insight into offering future online meetings.
- Findings will likely influence upcoming online meetings, but help design decisions for future in-person meetings as well.
Question 2: To what extent did the online format impact the conference experience? (What are the affordances, assets, drawbacks, etc.)

- 94% of attendees satisfied with the meeting; online format, impacted the conference experience only slightly, as compared with previous years (in-person)
- Significant elements missing, namely meeting colleagues and bumping into friends, not successfully mimicked online. There were other pieces missing, such as physical movement, having travel time to focus thoughts on the meeting, and being together in a single time zone.
- However, data suggests that:
  - overall focus on sessions and knowledge sharing may have been greater than in-person meetings
  - time was spent more efficiently (you didn’t need to walk distances from session to session)
  - people got lost less
  - materials and shared workspaces and documents were more readily available
  - contributions increased as a result of both text and audio questioning formats
  - online format *may* have had more positive impacts than negative.
Special Events
Today: Live Q&A in the Research Showcase Poster & Demo Gallery

Challenge for the next 30 min:
- View ~4 presentations, including:
  - 1 that is not in your wheelhouse &
  - 1 by someone you do not know.
- Ask or leave a question/comment for each you view.

Focus for each round:
1. Presentations 1-12
2. Presentations 13-25
3. Presentations 26-37
4. Any presentation
Flow-Conditioned Parameter Grids: A CONUS Hydrologic Parameter Dataset For Mechanistic, Statistical, and Machine Learning Models

Theodore Barnhart, August Schultz, Seth Siefken, T. Roy Sando, and Peter McCarthy
Wyoming-Montana Water Science Center
U.S. Geological Survey
ESIP Virtual Poster Session - July 17, 2020

What is a Flow-Conditioned Parameter Grid?
One lonely Thursday evening a researcher contemplates data publication from their new COVID work life arrangement.

A domain repo...
- What's a repo?

A F A I R repo...
- What's FAIR?

Where should I put my data?

A certified repo...
- Now I'm really lost!

https://1.qiqochat.com/breakout/0/NvDczLZrDnITQHCzckzKPSqUj
FIRST FRIDAY & FUNding Friday

INFORMAL NETWORKING

BREAKOUT & PLENARY CONTENT
ESIP Summer Meeting: [https://2020esipsummermeeting.sched.com/](https://2020esipsummermeeting.sched.com/)

ESIP Session Breakout Leader Guidance: [https://docs.google.com/document/d/1dllJQyR0-Ky7RbisYjisxe_pXM4JCaL5j8Ca2osStRo/edit](https://docs.google.com/document/d/1dllJQyR0-Ky7RbisYjisxe_pXM4JCaL5j8Ca2osStRo/edit)

ESIP Summer Contingency Plan: [https://docs.google.com/document/d/1AjiOHROJxOktusN6iJXg58ZrDptV3bfS4LgAjHP_IUY/edit](https://docs.google.com/document/d/1AjiOHROJxOktusN6iJXg58ZrDptV3bfS4LgAjHP_IUY/edit)

Virtual Conference Pricing Justification Background: [https://docs.google.com/document/d/1-Xlvsrmhn95Tvq1ueXEiNg0x-oEX0sbANnHN8NqLvQ/edit](https://docs.google.com/document/d/1-Xlvsrmhn95Tvq1ueXEiNg0x-oEX0sbANnHN8NqLvQ/edit)
Virtual Conference Resources

- A guide to hosting on Zoom: https://docs.google.com/document/d/1KLRrnm6g5YvD8QRSPwwNWg6NPk9FYvMpZPy_XEyOmMM/edit#

- ACM Presidential Task Force on What Conferences Can Do to Replace Face-to-Face Meetings

- Mozilla Blog: Rapid Virtual Meeting Prototyping in the Age of a Pandemic

- Liberating Structures (particular recent work on how to turn in-person methods into virtual methods)
• Consider pricing structures for elearning/courses*
• We based our price on $25/hour of plenary content and the cost of full use of our platform for the 10 days of our meeting
• We provided comp’d registration for Session Leaders to give to 1-2 new to ESIP speakers

*Source: https://helloendless.com/virtual-event-pricing/