

SCORE-UBE Post-Summit Findings

October 2019

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NOMENCLATURE

AACU	Association of American Colleges and Universities
ALA	American Library Association
AASL	American Association of School Librarians
ComPADRE	Communities for Physics and Astronomy Digital Resources in Education
DEI	Diversity, Equity & Inclusion
DiG	Data Incubator Group
ESA	Ecological Society of America
iEMBER	Inclusive Environments and Metrics in Biology Education and Research
MERLOT	Multimedia Education Resource for learning and online teaching
MMHub	Math Modeling Hub
NIBLSE	Network for Integrating Bioinformatics into Life Sciences Education
NSDL	National Science Digital Library
OER	Open Education Resources
QUBES	Quantitative Undergraduate Biology Education and Synthesis
SCORE	Sustainability Challenges for Open Resources to promote an Equitable UBE
SERC	Science Education and Research Center
SPARC	Scholarly Publishing and Academic Resources Coalition
TIEE	Teaching Issues and Experiments in Ecology
UBE	Undergraduate Biology Education

INTRODUCTION

Bates College hosted the SCORE-UBE Summit on October 17th through October 19th to explore the promise of equity and realistic challenges of sustainability assumed by open education resources in undergraduate biology education using NSF RCN-UBE incubator funding. Prior to the summit, the leadership team created a group page within the QUBES Hub to share information about the conference (e.g., schedule, travel, code of conduct, etc.) - <https://qubeshub.org/community/groups/score/>. The group page allowed participants of the conference a space to meet each other as well as share resources on OER.

Dr. Carrie Eaton facilitated sessions of the summit which was kicked-off on Thursday, October 17 with poster presentations, dinner, and a keynote speaker, Dr. Karen Cangialosi (Equity and OER). Over the course of the next two days, participants contributed to conversations of OER through lectures, panel discussions, breakout sessions, networking and brainstorming activities – see Figure 1 and Figure 2 for conference schedule. Dr. Joseph Garcia shared his knowledge on sustainability as well as equity and inclusion through lectures and audience engagement. A panel consisting of funders and OER stakeholders provided attendees insights of a) funding opportunities and b) OER efforts. The panel was facilitated by Rachel Wray (Bates College); and presenters included Mark Pauley (NSF), Elizabeth Pope (Davis Education Foundation), Margaret Imber (Bates College – Institutional support) and Krystie Wilfong (Bates – Library support).

Throughout the summit, participants were given opportunities to network and learn about OER with each other as well as to participate in breakout sessions to discuss OER related topics identified as important issues in the sustainability of OER – Figures 1 and 2. The following OER stakeholders gave brief (pecha kucha style) presentations on different life cycle stages of OER sustainability: Dr. Jason Douma (Math Modeling Hub), Dr. Kaitlin Bonner (Data Incubator Group), Erin Vinson (CourseSource), Dr. Jeremy Wojdak (Radford University), and Kristen Jenkins (BioQuest). During Saturday's presentation, additional participants were able to attend parts of the summit remotely. To conclude the meeting, participants interacted to determine emergent themes using the following prompts: 1) What are the most important issues/problems to address within OER? and 2) What next steps or opportunities exist for the SCORE network?. Participants' responses and themes produced during the interactive session are portrayed in Figures 3 and 4.



Figure 1. Timeline of activities Friday, October 18, 2019



Figure 2. Timeline of activities, Saturday, October 19, 2019

What problem are we trying to solve?

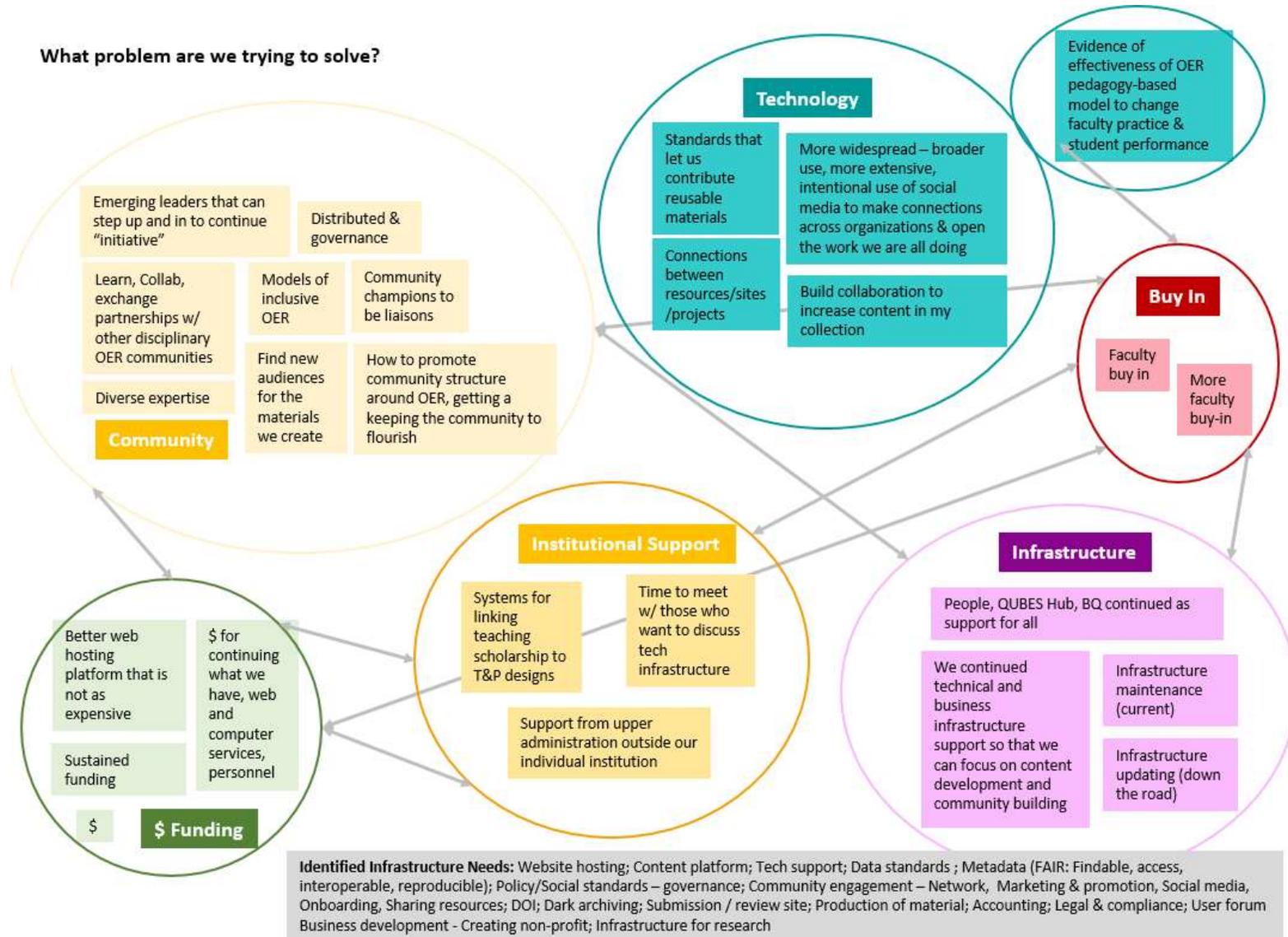


Figure 3. Emergent themes of participants' responses to "What are the most important issues/problems to address within OER?"

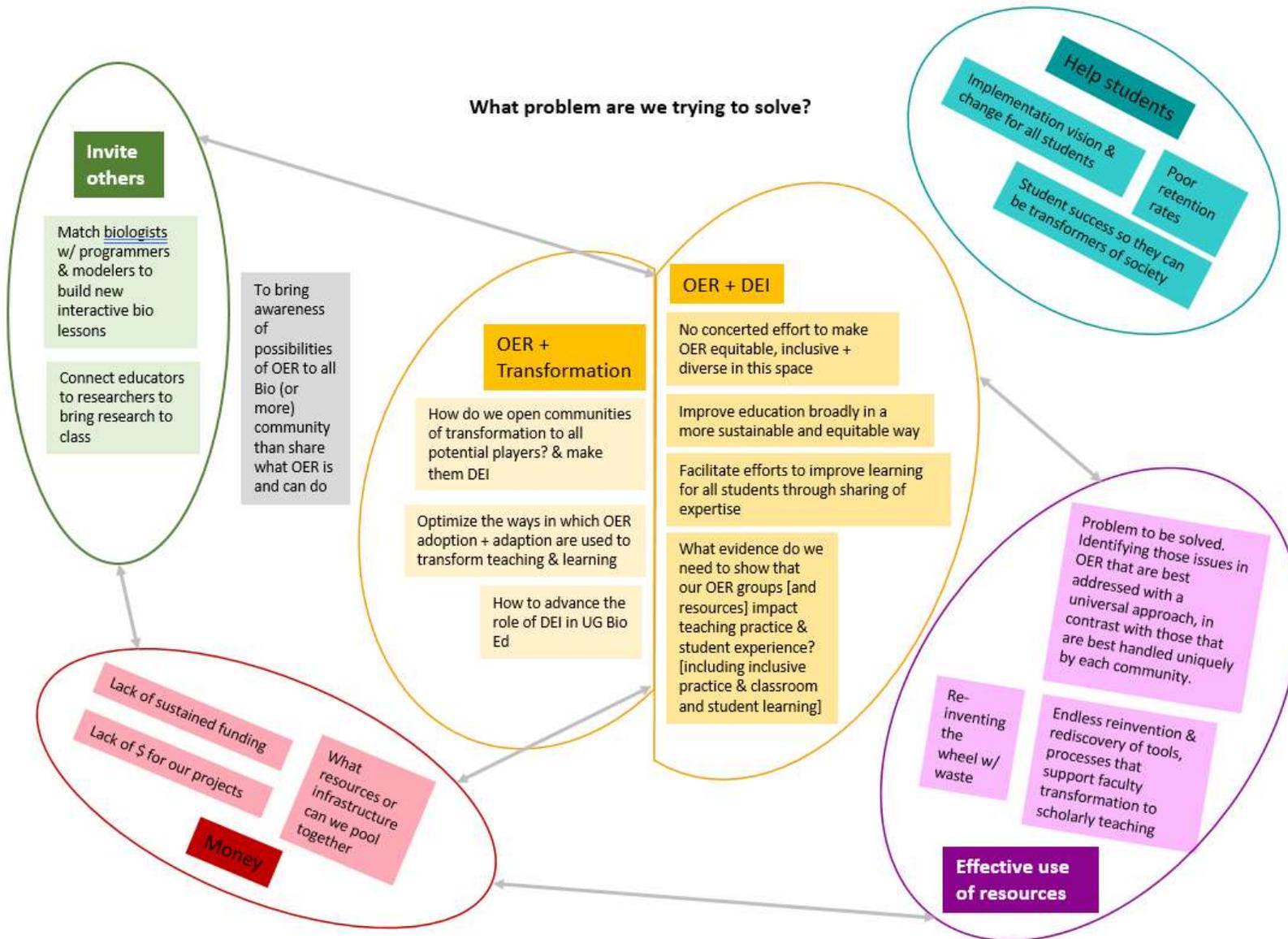


Figure 3 continued.

What are the next steps?

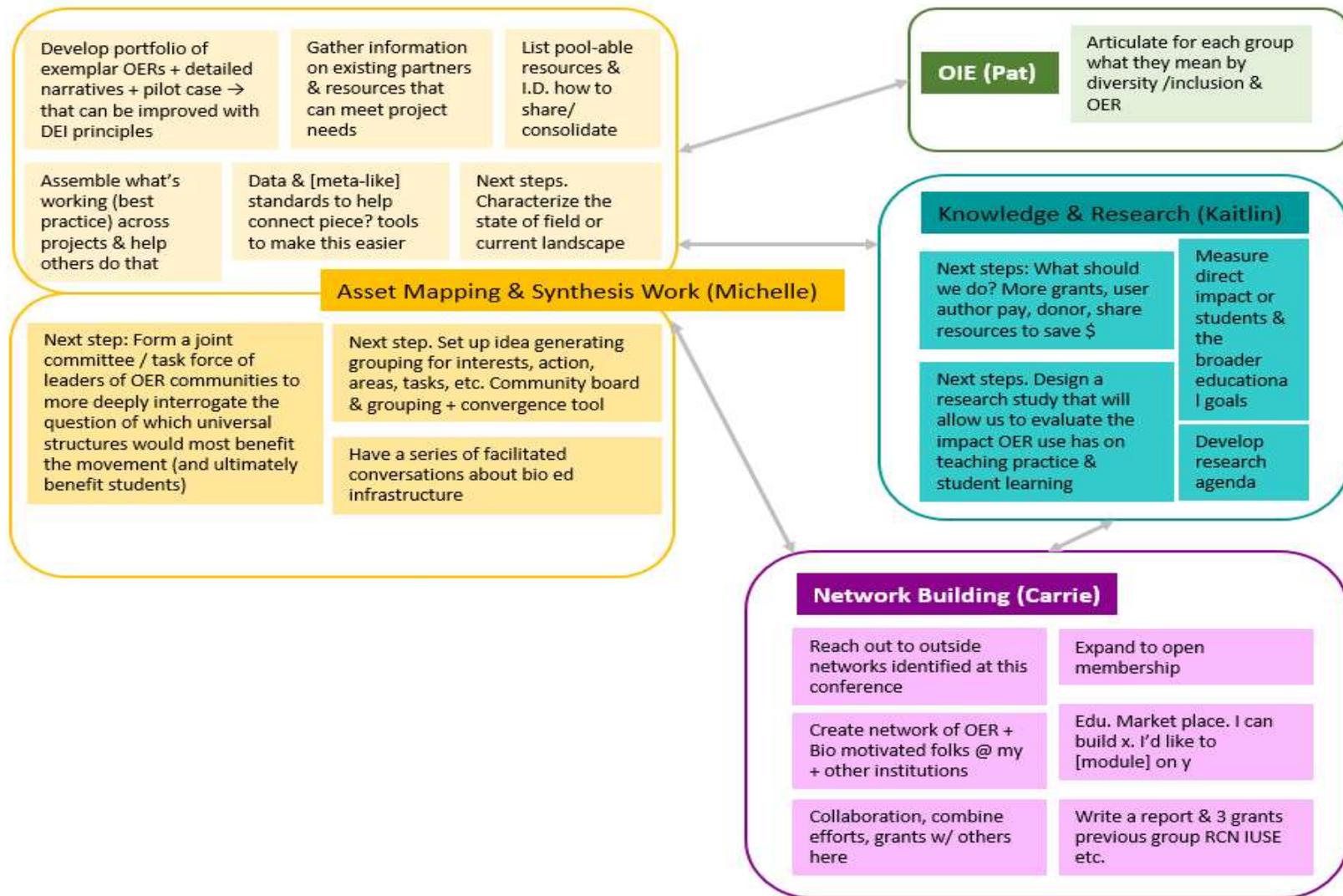


Figure 4. Emergent themes of participants' responses to "What next steps or opportunities exist for the SCORE network?"

PARTICIPANT CHARACTERISTICS

A total of 40 participants registered to attend the SCORE-UBE Summit and a total of 36 members participated in at least one component of the summit (31 in-person (■) and 5 virtually (■)). Figure 5 shows the attendance numbers across each day of the summit. Travel disruptions affected the intentions of 9 individuals intending to attend the dinner and keynote speaker on Thursday (■).

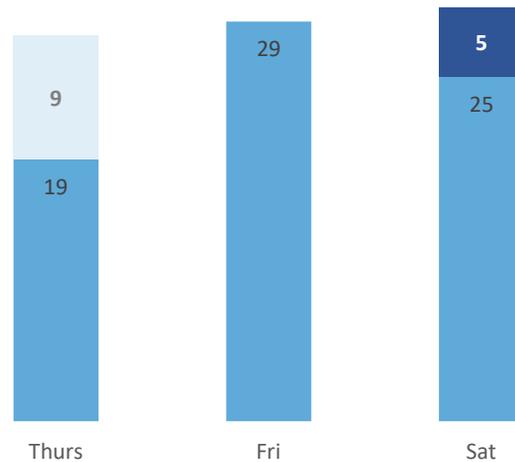


Figure 5. Attendance across days of the SCORE Summit

Registration data is available for 37 of the participants, and pre-surveys were administered to 35 of these participants (surveys were not administered to the evaluator and funder). Twenty-six (74%) participants completed the pre-survey, which included questions about their affiliation with OER and relationships across participants. Diversity of the participants is evidenced by OER associations (Figure 6), geographic residence (Figure 7), primary field of discipline (Figure 8), and representation across OER (Figure 9).

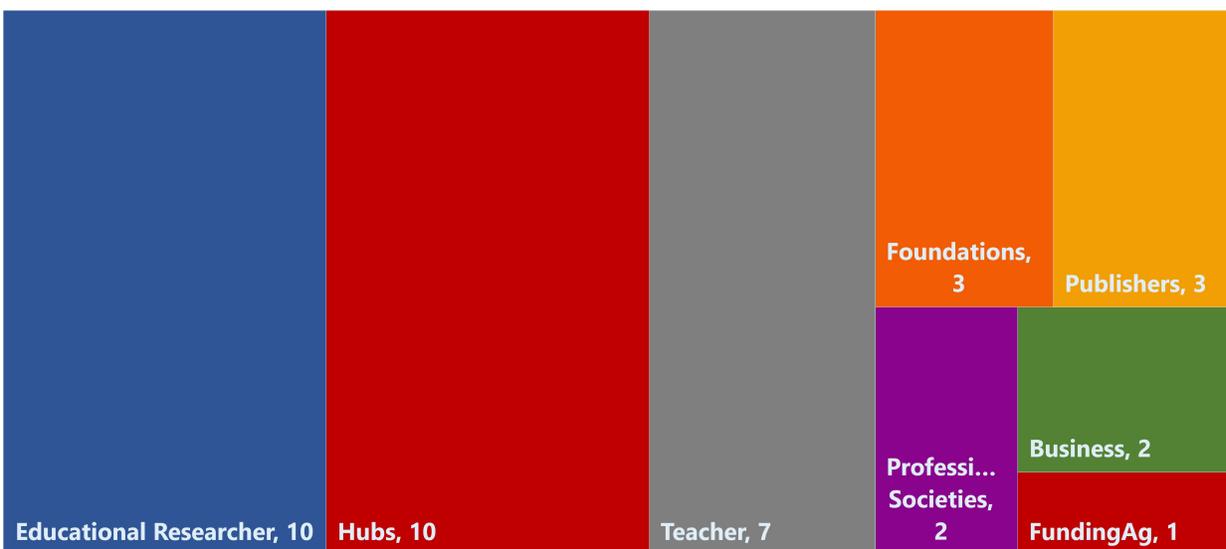


Figure 6. Associations of registered participants (some participants indicated more than 1 association).



Figure 7. Geographic representation of SCORE-UBE registered attendees - 16 states total.

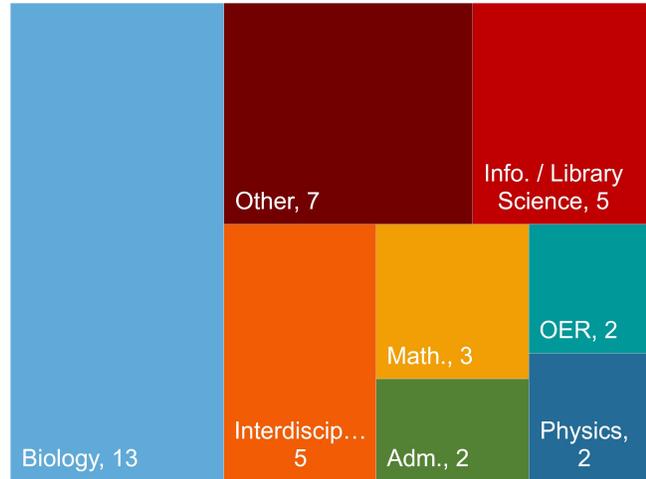


Figure 8. Primary affiliations of registered participants (some participants indicated more than 1 primary discipline). Other includes 1 individual each representing Funders, Foundations, Geoscience, Management & Organizational Studies, Online Learning, Psychology, and Roman History.

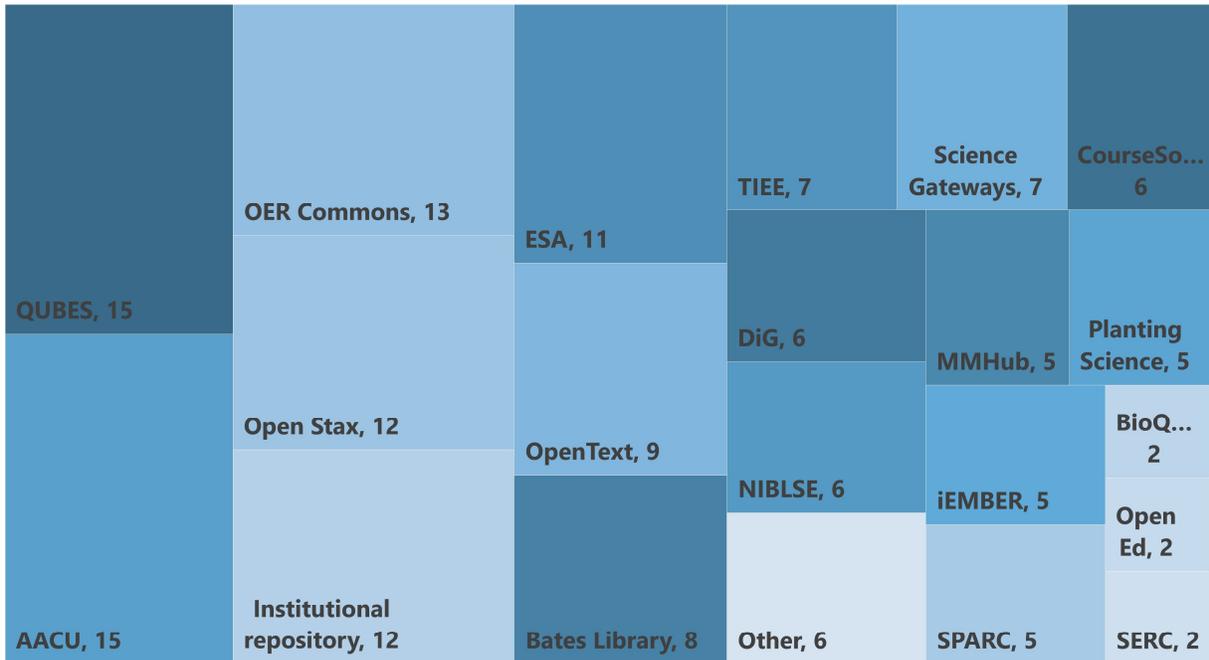


Figure 9. OER communities in which participants indicated participation. Other includes 1 individual each representing NSDL, MERLOT, ComPADRE, Teach the Earth, ALA and AASL.

NETWORK ANALYSES

The SCORE-UBE summit aims to expand networks of persons committed to understand and find sustainability solutions to OER as well as DEI. Figure 10 shows the reported connections of the network prior to attending the summit in October.

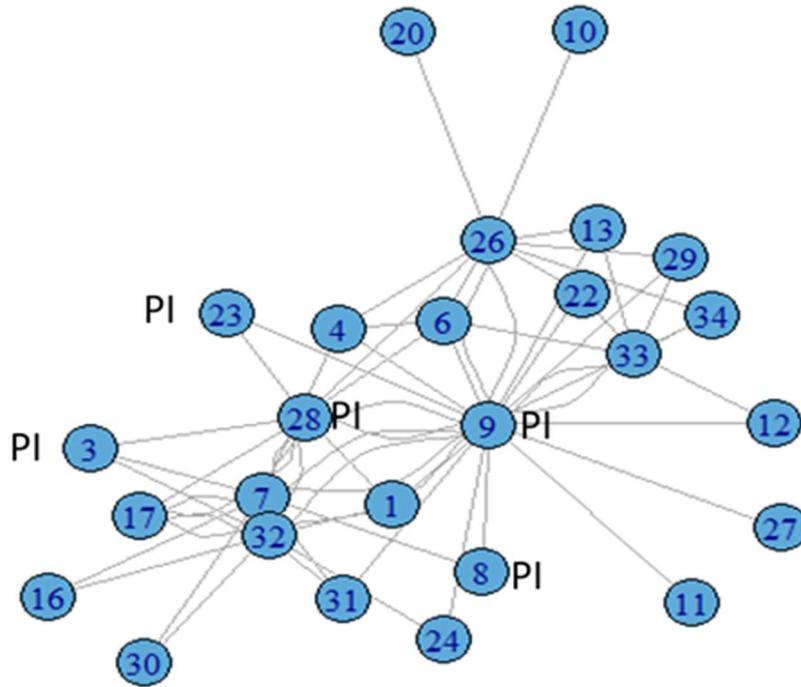


Figure 10. Network graph showing professional collaborations across summit participants. The degree of vertices are highest for participant 9 (24), participants 7 and 32 (14), participant 28 (12), and participant 26 (11). The network density is .206 and 4 cliques were identified in the network.

SURVEY RESULTS

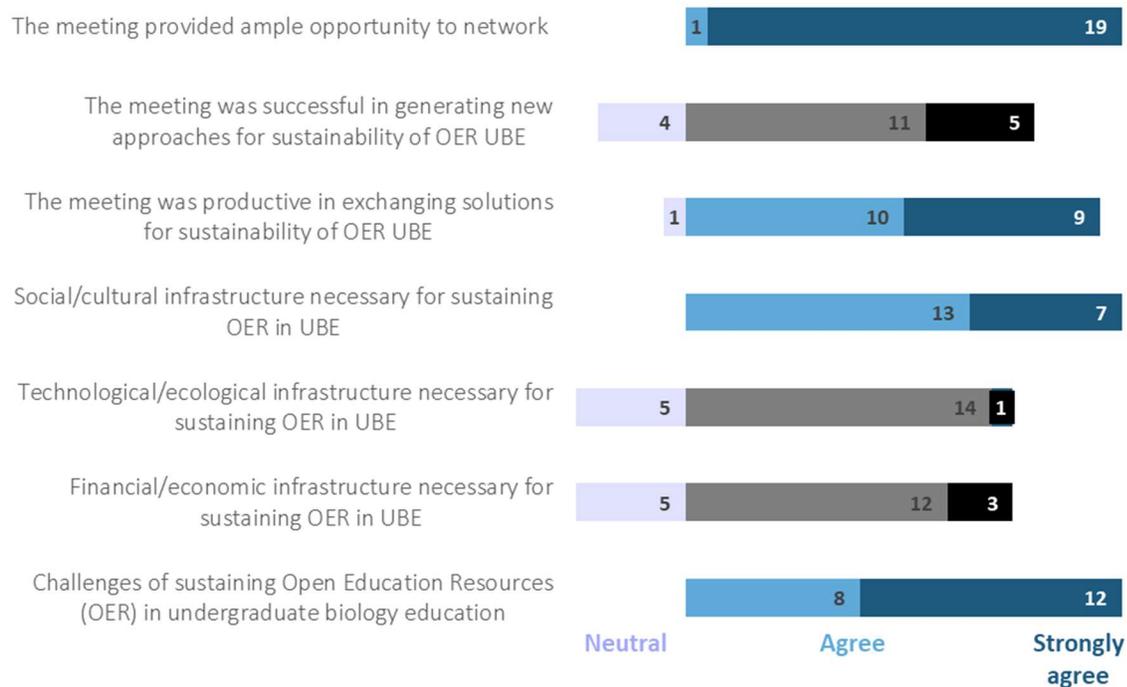


Figure 11. Participants agreement with different statements regarding benefits of the Summit meeting. Participants indicated strong, positive agreement about the meeting 1) providing ample opportunity for networking; 2) addressing challenges of sustaining OER; addressing social/cultural infrastructure necessary for sustaining OER in UBE; and 4) exchanging solutions for sustainability of OER.

20

out

of

20

participants felt the format of the SCORE-UBE network meeting allowed them to explore topics of interest to them.

20

out

of

20

participants felt the exchange of ideas that took place during the SCORE-UBE network meeting will influence their future work.

18

out

of

20

participants felt the SCORE-UBE network meeting made adequate progress toward finding a common language across disciplines to address OER sustainability.

14

out

of

20

participants indicated they developed plans for collaborative research with other participants with whom they had not previously collaborated.

The following are excerpts of participants' responses across open-ended questions.

Did the format of the SCORE-UBE network meeting allow you to explore topics of interest to you?

Yes

“Great balance of presentations and open discussion

“yes. The chance to talk about a diverse set of issues related to OER w/ diverse groups of OER communities in the sciences

Do you feel that the exchange of ideas that took place during the SCORE-UBE network meeting will influence your future work?

Yes

“Networking & introduction to individuals specifically. As well, intro to various groups. Overall excellent stimulating network/contact building. Wonderful settings & facilities

“Several substantial collaborations were advanced

“Economic lens has changed my perspective on how to absorb challenges in sustaining OER and also using a lens pertaining to social justice regarding access to OERs by URM

“Absolutely! It helped me clarify where my community might fit in all of this and where it might go. I am interested thinking more about how we can collaborate and learn more from one another

Do you feel the SCORE-UBE network meeting made adequate progress toward finding a common language across disciplines to address OER sustainability?

Yes

“There was a common set of concerns and opportunities that came from the discussions

“I loved interacting cross-disciplinary. There were so many insights learned from other community leaders.

“Language across disciplines wasn't the biggest gap, but instead across projects with diverse aims

No

“I think the issue of common language was explained but not fully developed

Did you develop plans for collaborative research with other participants with whom you had not previously collaborated?

Yes

- ““ Several collections/projects to work with & people/projects to learn from
- ““ We're thinking about future grant ideas to continue funding and not fade away
- ““ Yes! Cross-community research to look at effectiveness. Different models but we can study the commonalities between & effectiveness of many

No

- ““ I'm not the person in the org who has the authority to make these collaborations
- ““ Plans might be too strong of a term. But I did discuss some possibilities.

Benefits gained from attending the SCORE-UBE meeting

Networking/Collaboration

““ Networking, feeling like I'm not alone, lovely group of thoughtful people who have shared interest

““ Clarity in moving forward, new collaborations and seasoned mentors, opportunity to broaden discussion

““ New ideas, new potential collaborations

Knowledge/Awareness

““ Concrete strategies to build sustainability into a program from the beginning not as an after thought

““ Deeper understand of role + impact of professional societies in the sustainability of OER communities of practice

““ I am more aware of what faculty & organizations face in the realm of financing projects

““ As a librarian, the biggest benefit from attending was increasing the visibility & availability of libraries in this conversation. In addition, conversations I have had showed me pain points that I did not fully understand before from the point of view of an OER creator.

““ Ideas for future funding, steps we need to take for improving and growing our community, the need for writing organization mission and diversity statements

Overall, participants found the summit valuable and indicated potential for further collaborations. Participants responses to changes for the meeting varied with the most frequent suggestion relating to increasing group interaction sessions. Participants indicated that sustainability of OER is complex and further work and study would be beneficial. Also, participants noted the benefits for having diverse representation among participants.

ICON ATTRIBUTION



BUSINESS

Created by Gregor Cresnar from Noun Project



EDUCATION RESEARCHERS

Created by Chanut is Industries from Noun Project



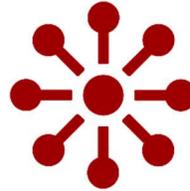
FOUNDATIONS

Created by Nithinan Tatah from Noun Project



FUNDING AGENCIES

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HUBS

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LIBRARIES

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PROFESSIONAL SOCIETIES

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