

ADBC Summit 2016

Executive Summary

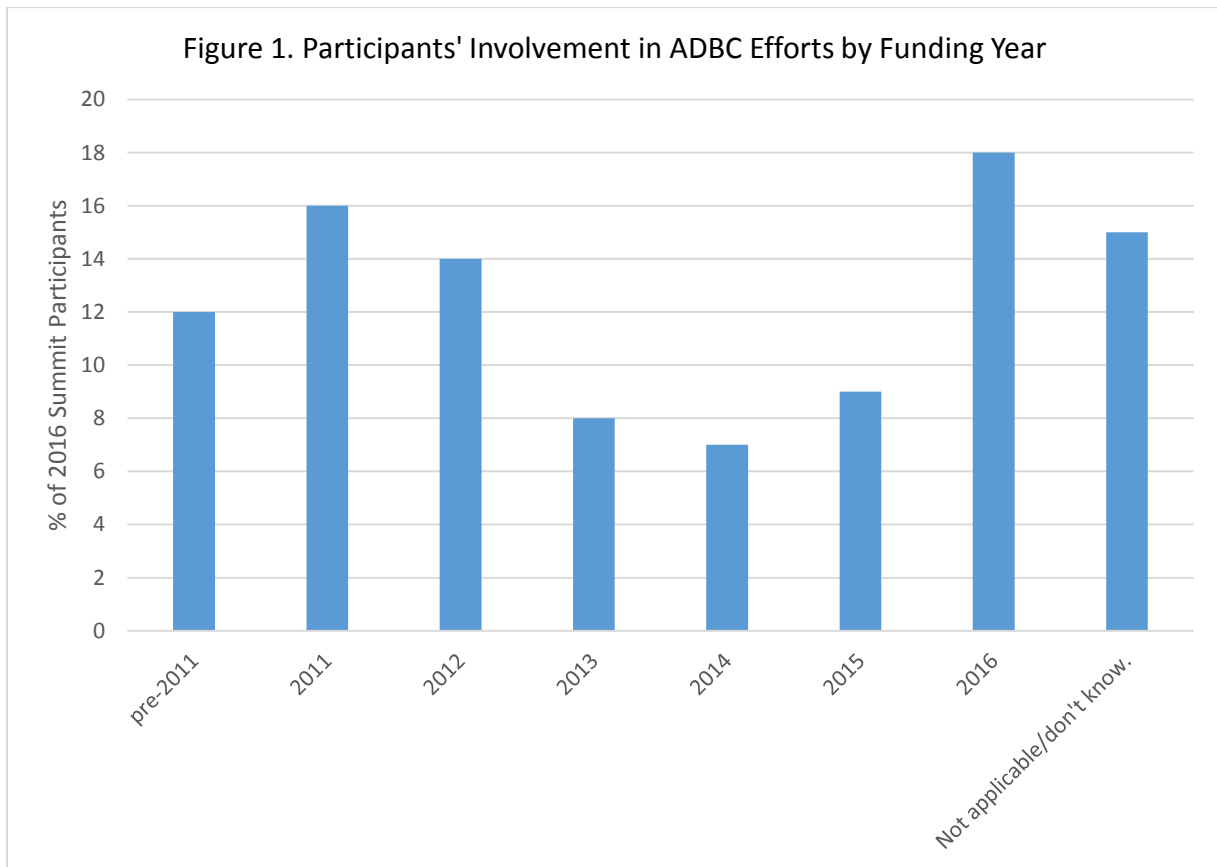
- The New TCN Orientation was better received than Summit V orientation. We received no negative comments about jargon and acronyms; in the past, use of those overwhelmed new participants' and contributed to their sense of being outsiders. This suggests that iDigBio's effort to avoid jargon and to define acronyms in presentations and in the program were successful. Comments do suggest, however, that the orientation might be even more effective if held at the beginning, rather than at the end, of the day (or online prior to the Summit), and that some of the information regarding the iDigBio website would be better conveyed via hands-on activities (e.g., creating an iDigBio account). There were also requests for appearances by NSF and iDigBio PIs and a meet-and-greet with the iDigBio staff, and greater emphasis placed on PENS.
- Most respondents found the presentations by NSF and iDigBio to be informative; however, comments suggest that NSF, iDigBio, and BCoN are not doing a good job communicating plans for the future of biodiversity collections digitization.
- The 5-minute structured format for the TCN presentations also appears to have been effective. The brevity of the presentations kept participants' interest level high, and the format made it easy to draw comparisons across TCNs. The most frequent criticism of the format was that it was too constraining; respondents expressed interest in learning more about lessons learned and successful approaches unique to specific TCNs as opposed to metrics and statistics.
- Most of the discussion sessions were also effective. There was some overlap across some sessions, which frustrated some participants and also wasted time; at least some sessions would have benefitted from an orientation that provided an overview of current status, important issues, and terminology.
- A majority of respondents participated in at least one ad hoc or special interest meeting during the Summit; most found the meetings valuable and believe it important to include time for those meetings in the schedule. Thus, if possible, future Summits should set aside time for these meetings.
- The meeting organization worked well. As in prior years, some participants were frustrated by concurrent discussion sessions, and new members of the community would have appreciated structured opportunities to meet up with representatives from more senior TCNs.
- With respect to Summit resources, most respondents checked the wiki at least once prior to the Summit. During the Summit, participants relied equally heavily on the wiki and the interactive pdf. If given a choice of just once resource, participants indicated a strong preference for an interactive pdf over only the wiki, a printed program, or a phone app. Thus, iDigBio should continue to provide both the wiki and the pdf and consider a single-page two-sided printed agenda.
- The overall meeting venue was rated highly, with iDigBio members more enthusiastic than other participants. The reception at the aquarium was highly praised. Most who offered comments liked some aspects of TechTown (e.g., "fun," "creative," "collaborative"), but this was offset by

problems with acoustics and physical layout. Similarly, Chattanooga received mixed reviews, although participants did appreciate the ease of moving among hotels, meeting spaces, and restaurants.

- With respect to Summit impacts, most respondents reported increased knowledge of iDigBio, the national digitization effort, and TCNs. Most TCN and iDigBio affiliates anticipate increased communication with others at the meeting, as well as possible new collaborations. Another benefit of participating in the Summit noted by participants was the opportunity to engage in meaningful conversations with NSF staff.
- The Summit received a median grade of 'A' and an average grade of A- (range = C to A+).
- We asked participants to identify potential venues for future Summits and to suggest ways to add value to the meeting in light of the fact that participants will increasingly need to cover some of the costs. Most of the locations suggested were in the Western U.S. In terms of adding value, there was a high interest in training and workshops, with the greatest interest shown in workshops related to tools, data, and research use.

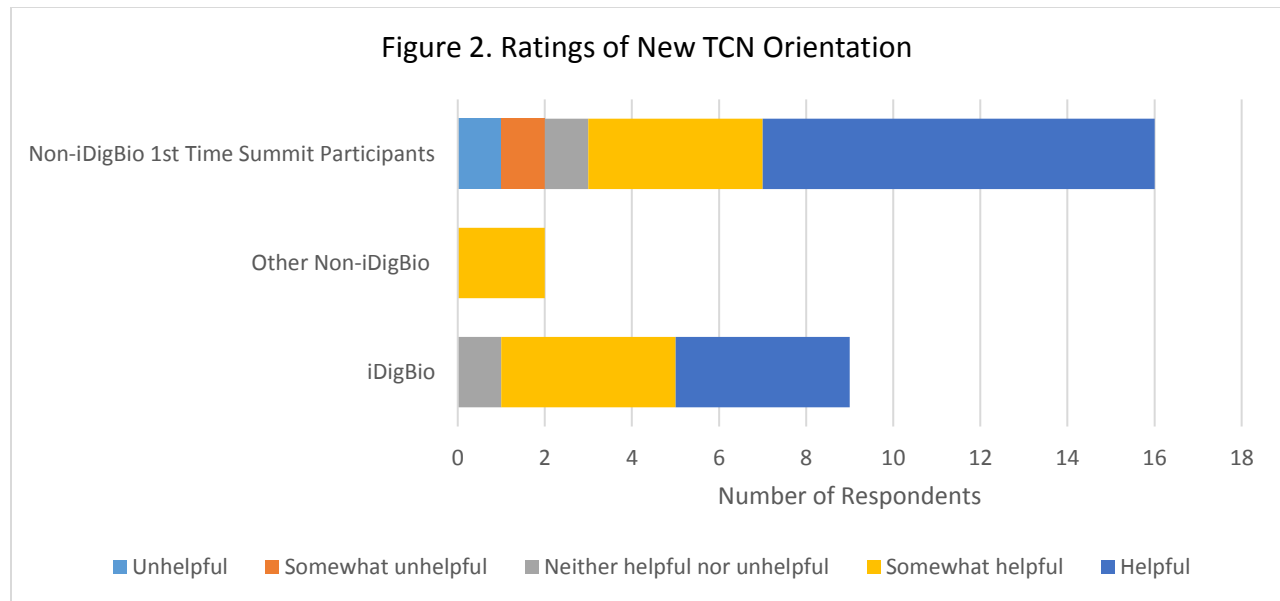
Respondents

An invitation to an online survey was sent to 106 Summit participants; 74 individuals responded, yielding a 70% response rate. Forty-four of the respondents represented TCNs/PENs, 11 had “other” affiliations, and 19 were members of iDigBio. About half (53%) of non-iDigBio respondents were participating in their first Summit. Of those who elected to answer the question (n=64), 45% were female and 55% male. Nearly all who provided demographic information were white, with 91% non-Hispanic.



New TCN Orientation

Twenty-seven individuals reported participating in the new TCN orientation. Eighty percent of those participating in their first Summit rated the orientation as “somewhat helpful or “helpful” (see Figure 2).



Comments suggest that at least some new TCN/PEN affiliates were overwhelmed, with iDigBio representatives observing that those who had been in their TCN orientation earlier that day seemed exhausted. As in years past, participants felt they could benefit from more structured opportunities to meet others in the digitization community including the iDigBio team and NSF. Others suggested changing the format, perhaps by having more hands-on components (e.g., creating an iDigBio account) or having the orientation online prior to the Summit might be more effective.

Representative comments (comments in blue were from iDigBio representatives):

“Being brand new to a TCN, I felt a little overwhelmed. For instance: Do I have all the software needed? Is my project management efficient enough? Am I taking the right steps first? Is there a clear checklist on what needs to be accomplished before, while, and after publishing data for iDigBio?”

“I was previously familiar with much of the content of the orientation, but a refresher was useful.”

“I appreciated learning all of what iDigBio does at the orientation, because before that I just knew that iDigBio published the database data and made it available to the public.”

“There were very few events designed to facilitate introductions between new people. Given that so many people at the summit already know one another, it can be difficult and stressful to introduce yourself as a newcomer.”

“I think the majority of participants had already had a full day by the time the orientation came round - so not sure how much really was absorbed - but keeping it light no doubt helped.”

“Perhaps a vision statement from NSF/iDigBio about the effort to digitize specimens. Also, there were several times during the orientation when I thought it would just be easier to do something rather than hear about it - setting up accounts, updating information, etc.”

Formal Presentations

Two-thirds of the respondents rated the set of presentations by iDigBio, NSF, and others as “informative” with one-third rating them as “somewhat informative.” When asked to share any questions or concerns that were not addressed in the presentations by iDigBio and NSF, five respondents mentioned issues related to the long-term sustainability of the NSF-funded efforts, including the role of PENS.

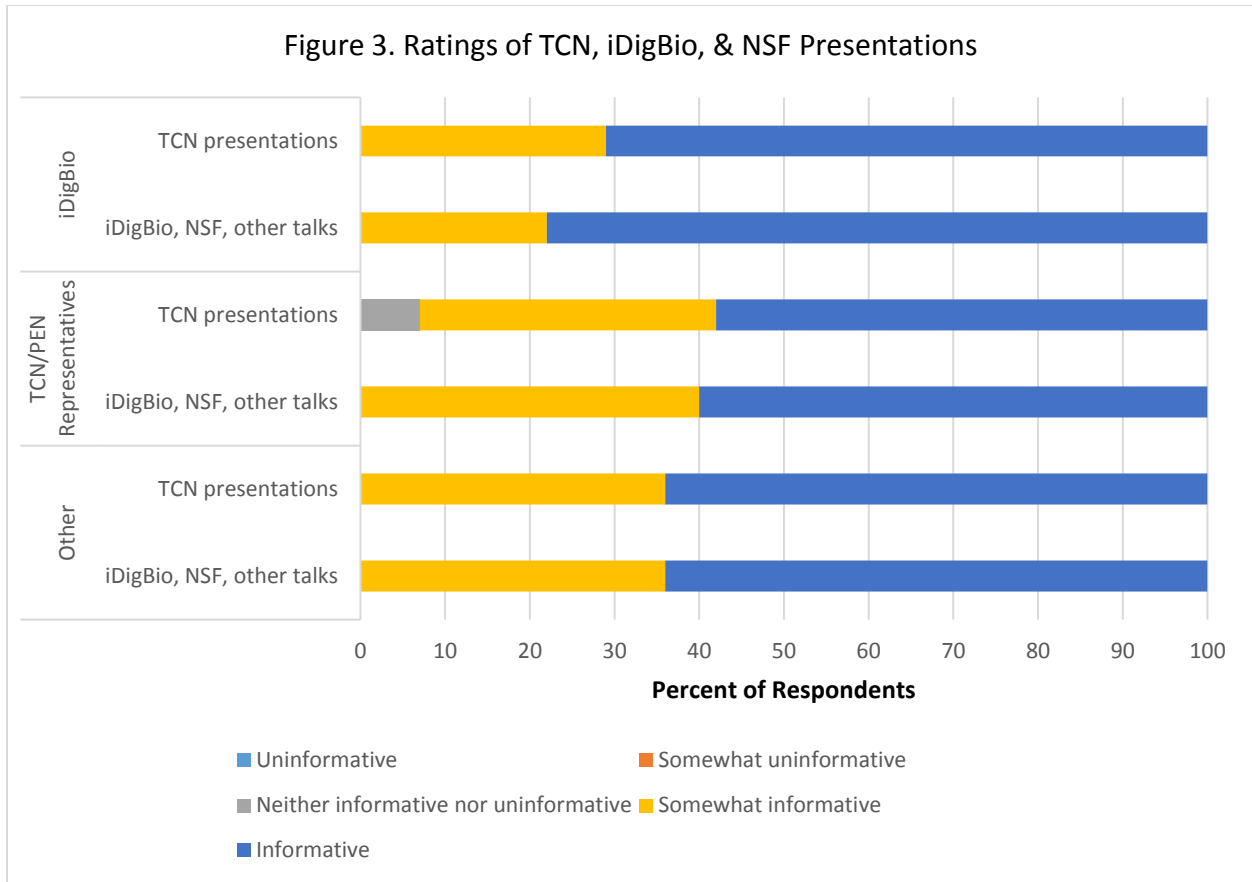
Representative comments:

“I came away from the meeting feeling like neither NSF nor iDigBio felt that a national digitization effort was sustainable. Individual institutions and the scientific community still benefit from the effort but it calls into question the value of ongoing coordinated effort.”

“More information on global initiatives and directions ... is iDigBio / NSF working in the same direction as the global community, if yes then what is common, if no, why (there are probably good reasons).”

“There are a lot of TCNs. As an institution with smaller staff, I see our institution being looked over or not being considered as contributors and am constantly trying to get our name out there and make connections. There are many institutions in a similar situation that have collections and can make valuable contributions to the bigger discussion. I sincerely hope that there will be more emphasis placed on PEN projects to include these institutions going forward.”

Most (95%) also rated the TCN lightning presentations as “informative” or “somewhat informative” (see Figure 3), with 90% rating the prescribed format of five slides with required content as “somewhat effective” or “effective.”



Overall, most who offered comments found the prescribed format for the TCN talks to be effective, especially when the presenters adhered to it. Respondents appreciated the brevity of the TCN presentations and the fact that the format made it easy to compare projects. That said, comments reveal that some felt the TCN presentations were a little too short and constrained. Several individuals suggested that some of the required content would be better shared elsewhere (e.g., institutional statistics could be presented on the iDigBio website), and that the TCN representatives should have focused more on lessons learned and be granted the flexibility to talk about workflows or other information unique to their TCN.

Representative comments:

“I found the five-slide format with the 5 specific focus points to be an effective format for conveying concise information. I found it least effective when presenters deviated from the scheme or went into too much detail.”

“The TCN presentations were definitely a highlight for me. I was surprised we spent so little time hearing about the work that everyone was doing on the TCN side, while we received fairly lengthy reports about what has been happening at iDigBio, BCON, and NSF. Those are good things to know, but I think 5 minutes per TCN is a slight to the whole purpose of the ADBC program.”

“I loved the format of the lightning talks! There were a lot of presentations, but it was an effective format for comparing all the current projects. I wish there were a recording of this when we were evaluating TCN projects to join as a PEN!”

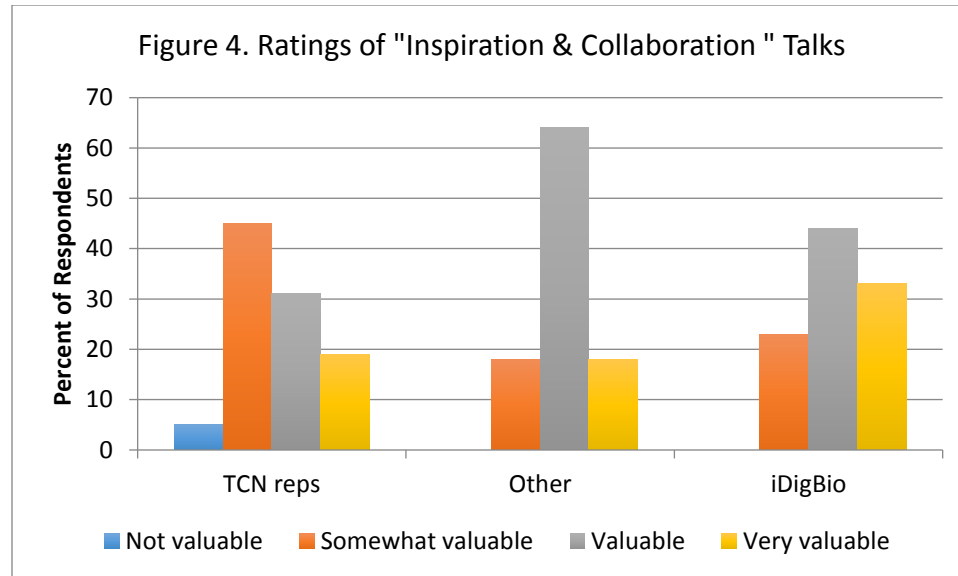
“By constraining the content of the lighting presentations to the same five issues, it prevented a TCN from featuring anything unique or outstanding that they had accomplished in the last year. I think it would be fine to suggest certain content, but to allow some room for creativity. If you just want answers to these five questions, we could just submit the answers in writing. Really no need to stand up and recite this information. Isn't this basically the same information we provide in our bimonthly reports?”

“I found the length of the presentations appropriate. It was enough to get a taste of each TCN without getting lost in too many details. The “lessons learned” section was very helpful. I would support spending more time on lessons learned and/or collaboration opportunities with other TCNs/groups outside of iDigBio.”

Respondents also found the presentations by others in the digitization and biodiversity science communities (“Inspiration and Collaboration talks”) to be of value, although representatives of TCNs found them less so than iDigBio representatives and those with other affiliations (see Figure 4). Respondents offered few comments about this set of talks, but it may be that TCN affiliates are more interested in content that they can use more directly:

“I would change the focus of the motivational talks to ones that demonstrate the tools being developed by iDigBio. *Freshstart* was interesting, but I have no clue how I could use it. I've heard about how useful the iDigBio API is, but to whom??”

“I would like to see a 'keynote' speaker of some sort who can provide a real research example of how our data is being used. For example, I found the talk by the Aquarium director fantastic!! She included distribution data from specimens. A talk (or 2?) like that somewhere in the program is inspirational and builds pride in knowing that our efforts are worthwhile.”



Discussion Sessions

In general, a majority of respondents rated the discussion/breakout sessions as “valuable” or “very valuable.” Those that were perceived as relatively less effective were “Tools and Skills for Using iDigBio Data Services for Research,” “Educational Resources,” and the two sessions on sustainability. (Although, based on previous Summits, sessions on sustainability tend to be consistently rated low.) Comments about the sessions suggest 1) there was sometimes too much overlap across some sessions, 2) the sessions could have been better organized and/or had an orientation at the beginning to help newcomers better understand the terminology, current status and issues, 3) at times, the discussions were too iDigBio-centric, and 4) participants missed having a summary or wrap-up session.

Representative comments:

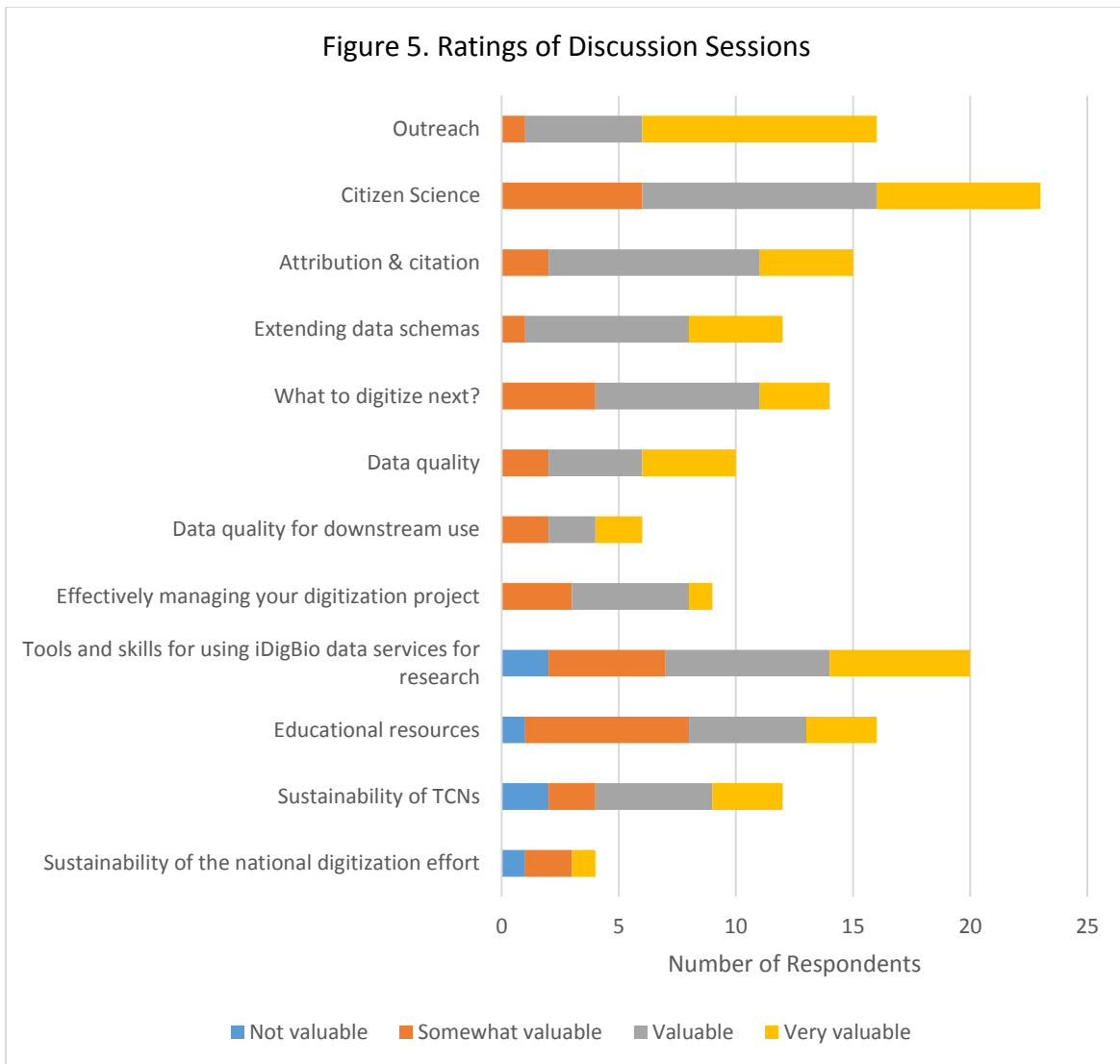
“There was overlap of discussion as all three sessions had similar titles and this resulted in some wasted time. I think having less and longer such discussions with less overlap would be more fruitful. Pick the top three or four topics and concentrate on those rather than trying to cover every aspect of everything.”

“I think the first 10 minutes for each discussion group could have been a brief introduction of things that new TCNs should know and do for their first project. Yes, it did start with the lead people asking if they should go over basics for TCNs, but new people are sometimes embarrassed, like myself. For you are in a room with people you read about and are intimidated. Just starting right off the bat with new TCNs to-do would be great and then it could go in more depth for older TCNs.”

“It is great that time was provided for working groups to meet. It is of course an iDigBio event, but I felt many of the breakout groups were limited in focus to iDigBio efforts. For example, in

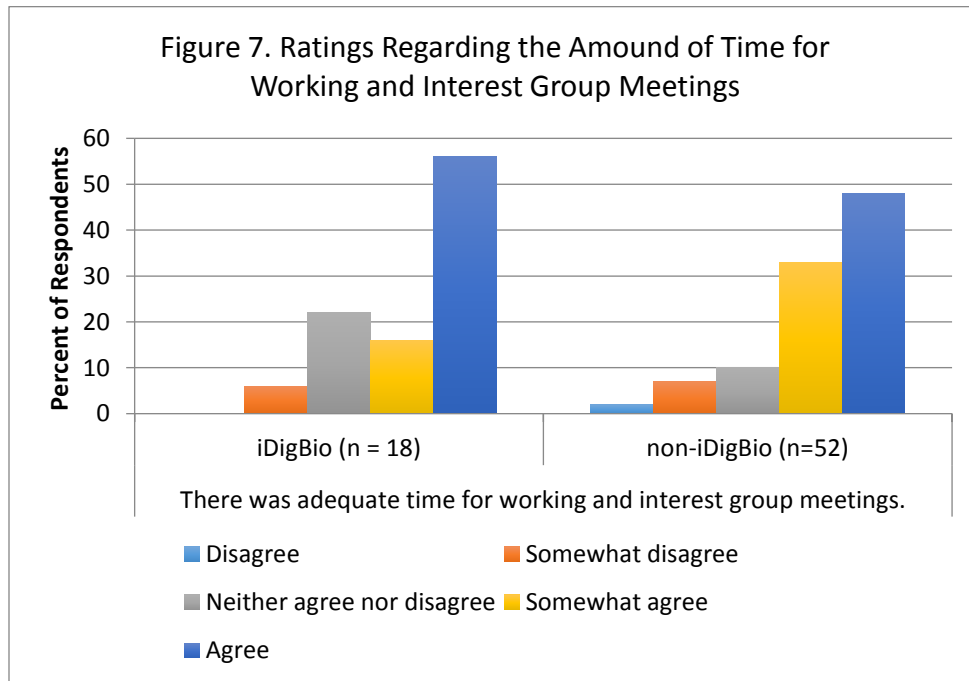
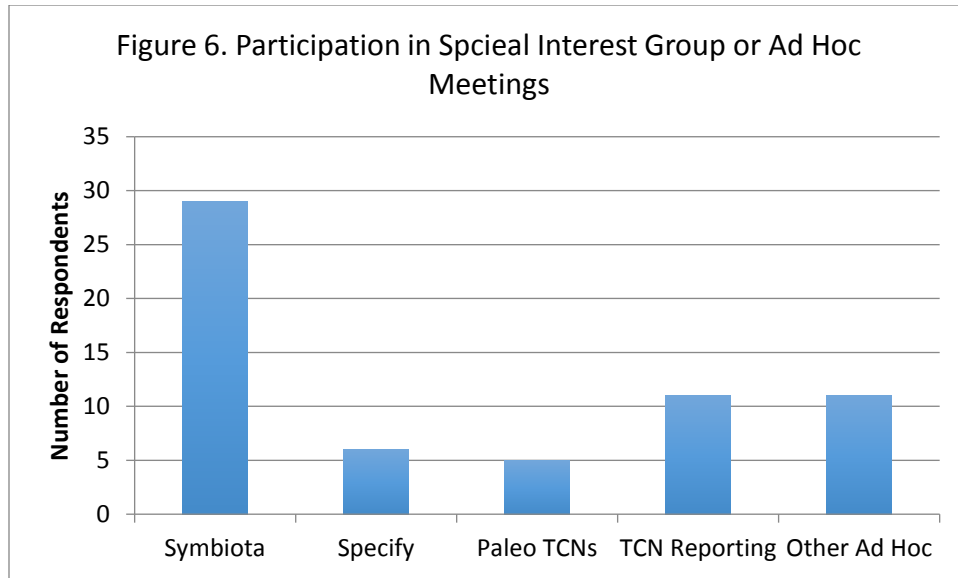
the research tool development breakout group, it seemed it would have been inappropriate to bring up tools that are being developed to visualize data in Symbiota.”

“I also think having some concrete deliverables at the end together with a summary session where each group presents their summary would have been useful so that others could get a sense of what was discussed in each group.”



Ad Hoc Meetings

Nearly three-quarters of respondents (73%) participated in at least one special interest group or ad hoc meeting (see Figure 6). Most respondents (80%) rated those meetings as either “valuable” or “very valuable” with the remaining rating then as “somewhat valuable.” Over 90% deemed it “somewhat important” or “important” to include time in the schedule for working and special interest group meetings, but most felt the time allocated during this Summit was adequate (see Figure 7).



Summit Organization

Overall, the majority of respondents felt that time was distributed appropriately among presentations, discussions, and opportunities for informal interactions, the issues discussed were timely an important, and there were opportunities for new members of the community to interact with those affiliated with senior TCNs. Few offered comments to provide direct insight into these ratings, although the extensive comments offered about the formal presentations and discussions sessions can help. Among the few suggestions offered were a request for more demonstration sessions, a formal summary of discussion

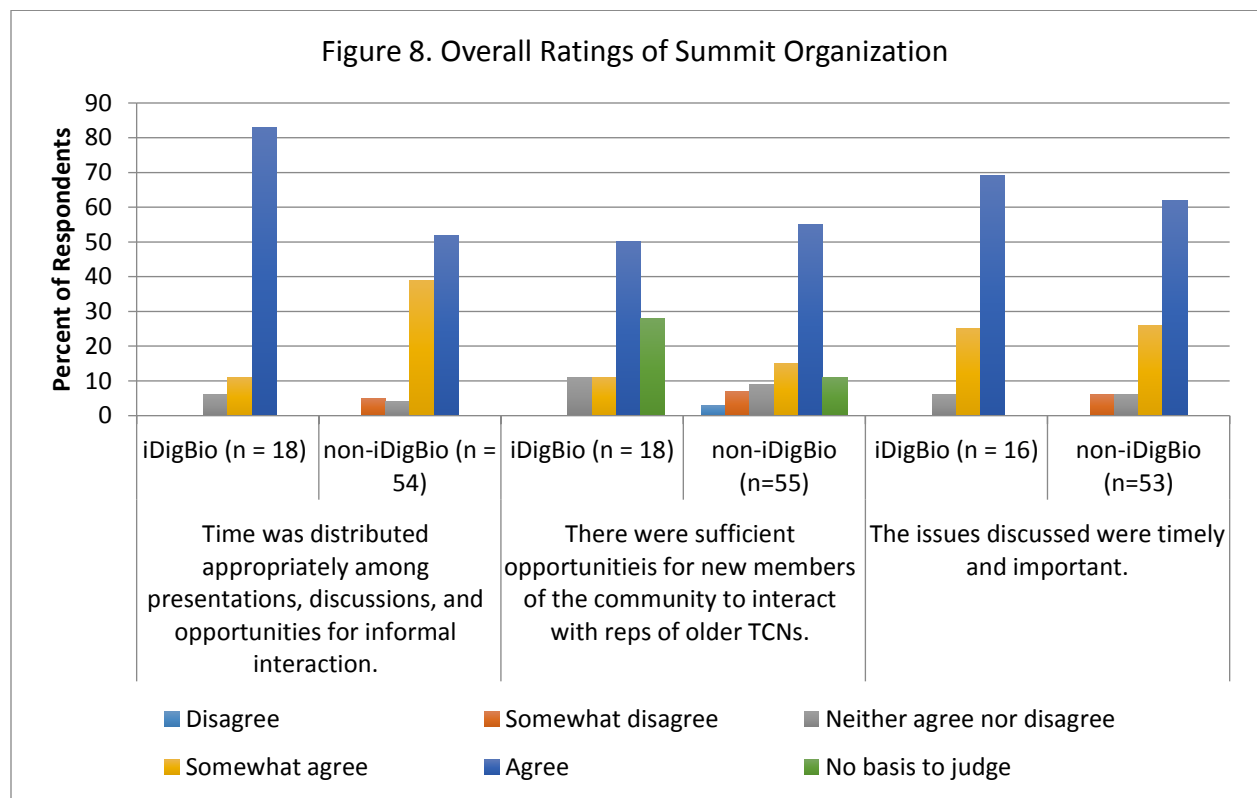
sessions, and a social to provide greater opportunities for new members to get to know others in the community.

Representative comments:

“Would have been nice to have a brief tools cafe for demos of applications, websites, and interesting programs that were not provided as part of the official talks.”

“The discussion sessions were not summarized - as took place at earlier summits. We never had the "where are we going" discussion that appeared on both morning and afternoon agendas on Thursday.”

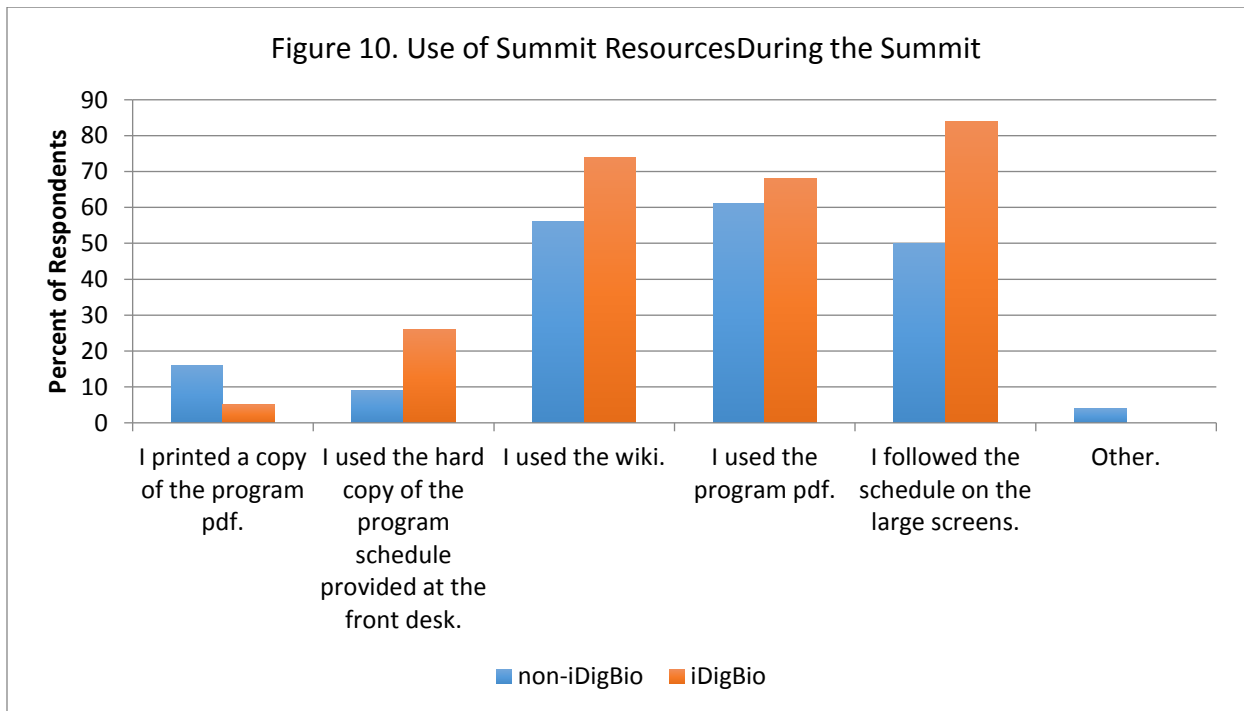
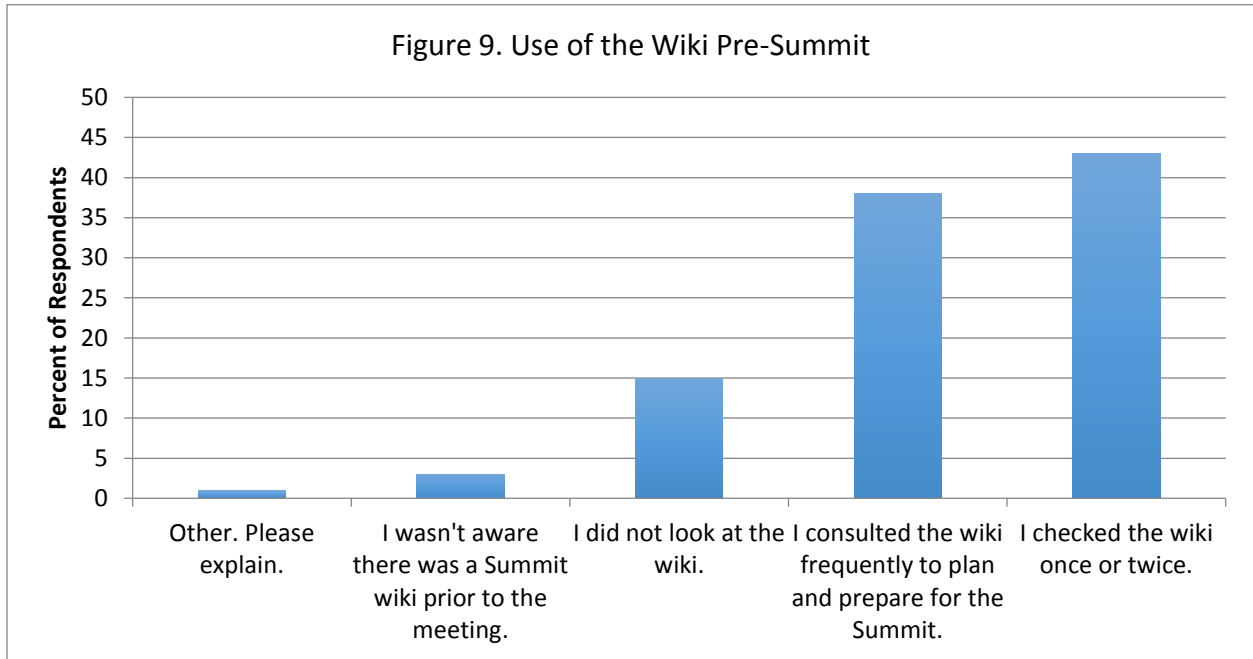
“It would be nice to provide some structured socialization for those new to the group - most participants seem to already know a substantial chunk of the attendees, so it was somewhat difficult to break into pre-existing social groups for those new to iDigBio/TCNs. It might be useful to have an icebreaker or mixer type activity.”

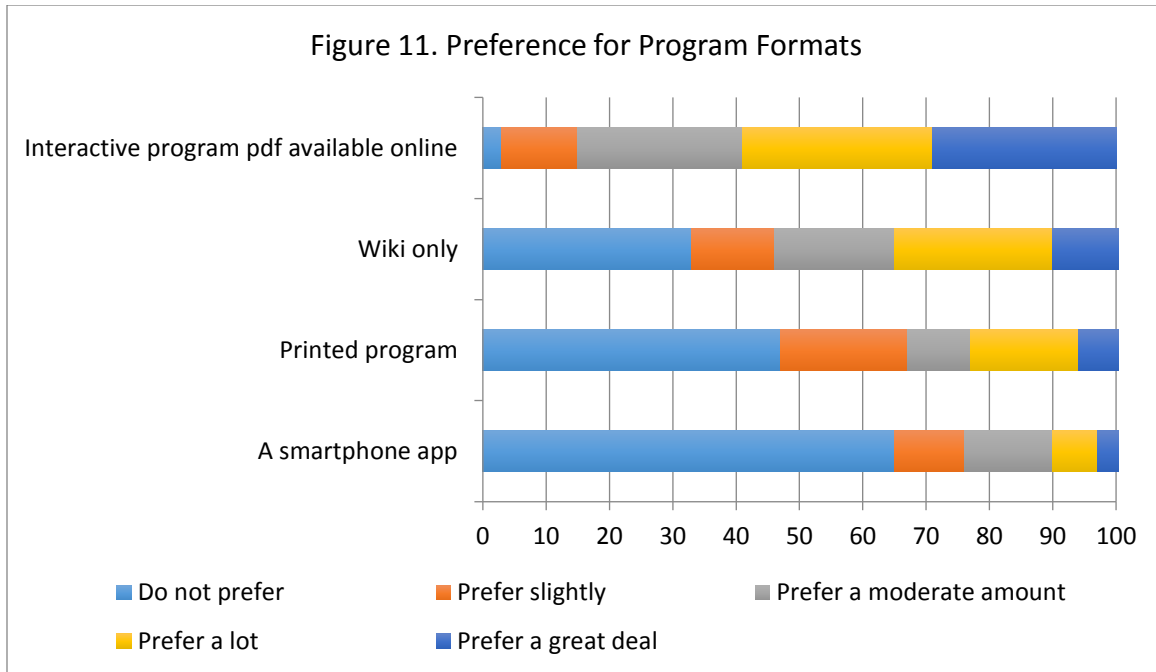


Conference Resources (program/schedule)

Given the staff time required to produce the wiki and program pdf, we were interested to learn more about the uses of Summit resources prior to and during the Summit. Survey results reveal that most respondents checked the wiki at least once prior to the Summit (see Figure 9), and that the wiki and pdf

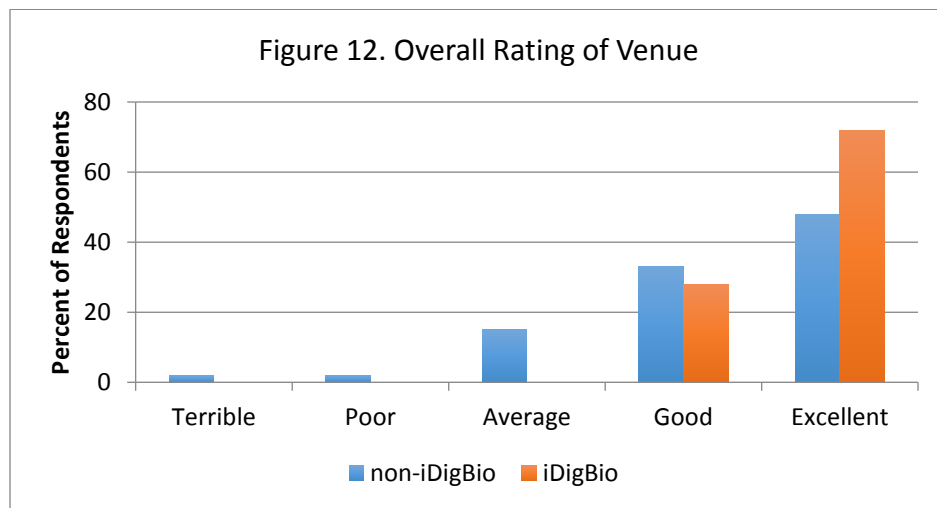
were used about equally during the Summit. (iDigBio personnel also relied heavily on the large screens (see Figure 10)). If given a choice among just one approach, an online interactive pdf was strongly preferred (see figure 11), although one respondent suggested that a 1-2 page printed program would be helpful. With respect to the “bio” section of the program, 90% were aware of the bios. All of these individuals rated the bios as at least “somewhat valuable” with most (79%) rating them as “valuable” or “very valuable.”





Venue

We asked respondents their opinions on the venue including the city (Chattanooga), hotels, reception space (aquarium), and the meeting space (TechTown). Most respondents rated the venue as “good” or “excellent;” however, iDigBio personnel were more enthusiastic than representatives of TCNs or those with other affiliations (see Figure 12). Respondents were quite positive about the ease of getting from the hotel to the meeting space, reception, and restaurants, as well as the reception itself. Reactions to the city were more mixed, with some respondents finding Chattanooga to be a “wonderful” city and others finding it “not great” especially given that few participants had the option of either flying there directly (i.e., at least one plane change was required). The meeting space, TechTown, also received mixed reviews. Respondents appreciated the more relaxed, collaborative atmosphere, but the acoustics and layout were problematic.



Representative comments: (comments in blue are from iDigBio representatives):

“I enjoyed the laid back environment and ease of getting around Chattanooga.”

“The location was amazing - easy to get from hotel to venue and restaurants.”

“Chattanooga was not an optimal venue.”

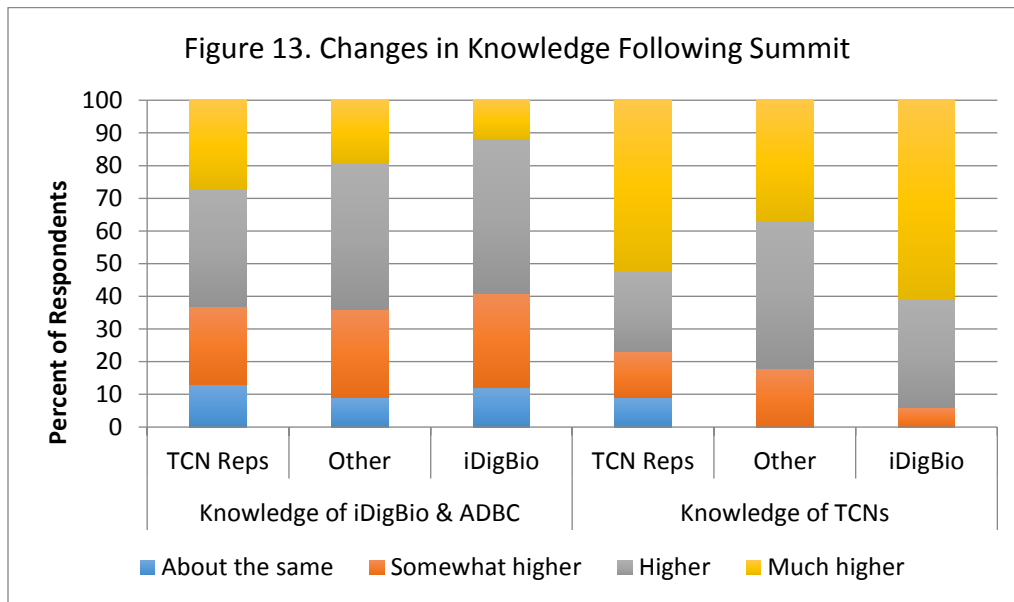
“Fun space. The acoustics were an issue in some rooms, and the posts in the main room - annoying. But the overall space was very inviting and comfortable.”

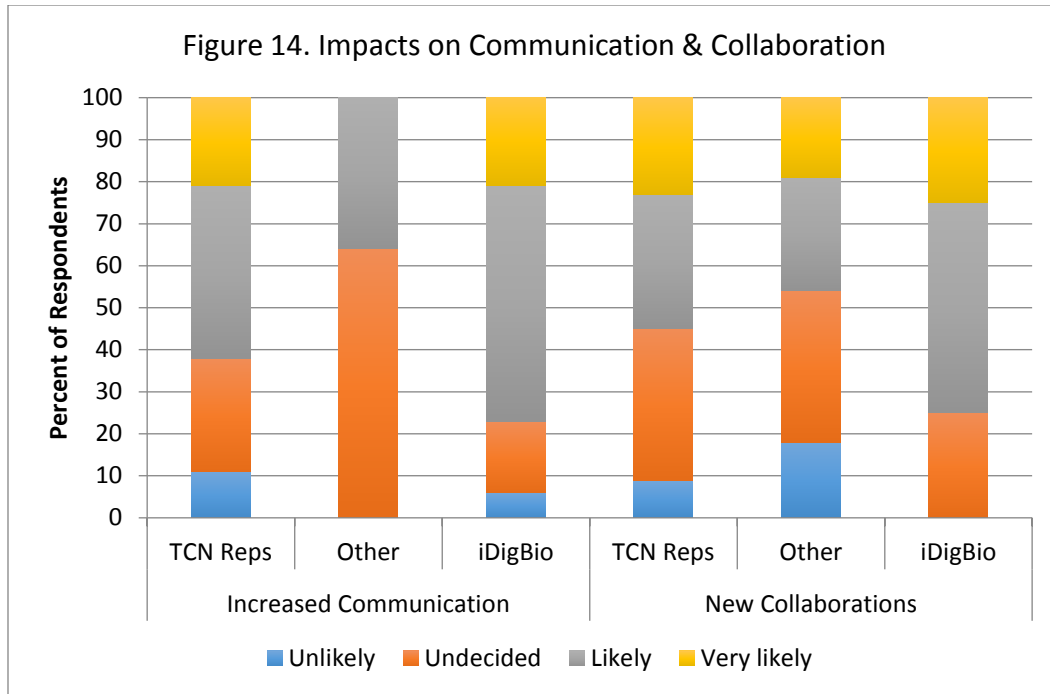
“IT connection great. Summit site was very good and inspiring, except for the acoustics and inability to have smaller, more isolated meeting rooms.”

“Although it was interesting to be in a different kind of space, I didn't think that the rooms were great for meeting. Acoustics were bad enough that I often had trouble hearing, and in several meetings I had trouble with the line of sight to the speaker or presentations. I encourage the planners to choose future venues based on how well they will support communication among participants.”

Summit Impact

In terms of Summit impacts, most respondents reported an increase in knowledge about iDigBio, the national digitization effort, and TCNs with which they were not affiliated, with TCN representatives reporting greater increases (see Figure 13). Most TCN representatives (62%) also anticipate increased communication with other TCNs, and about half (55%) anticipate new collaborations. Three-quarters of more of iDigBio affiliates anticipate increased communication with TCNs and new collaborations as a result of the Summit (see Figure 14).





Comments reveal that participants valued the exchange of ideas within their own TCNs but also with others outside their field, networking and laying the ground for new collaborations, and talking with representatives of NSF.

Representative comments:

“I didn't realize how complex the digitization was and the problems of putting and directing the online data. Since I am just working at one herbarium, it was great to see how. I now appreciate working groups much more.”

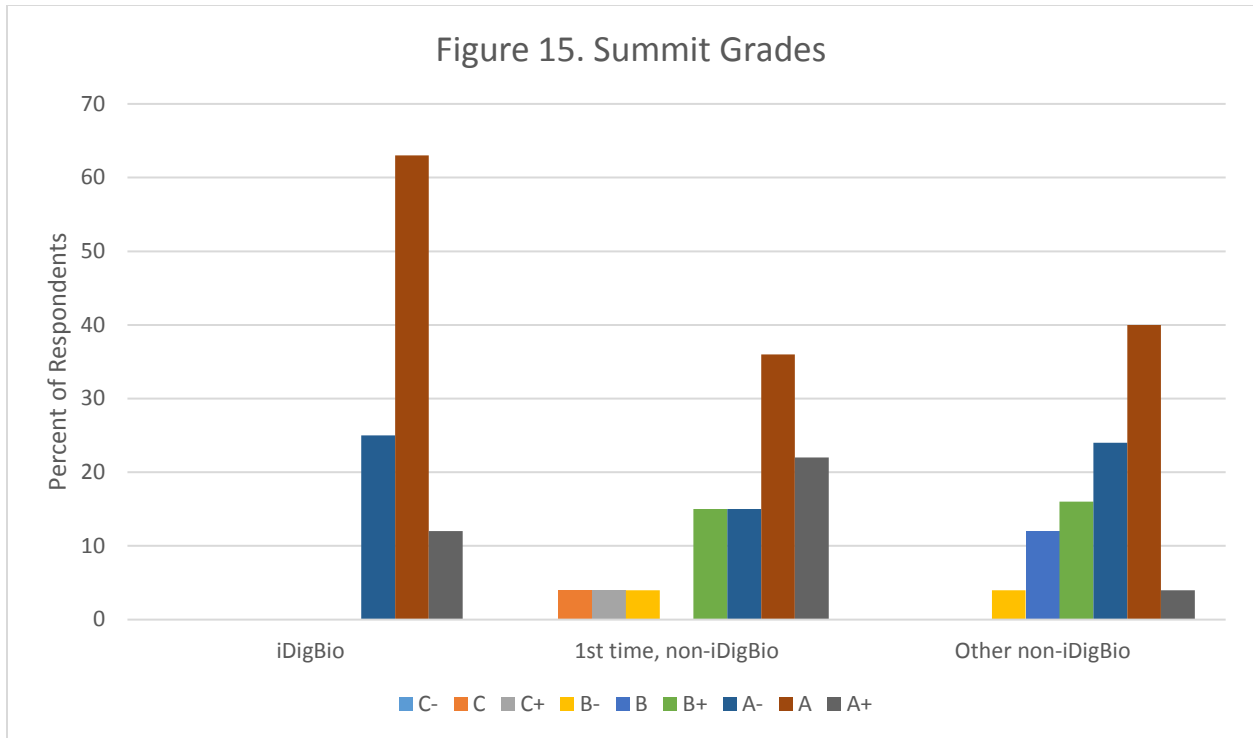
“Time to collaborate and process the information provided with members of my TCN was extremely valuable.”

“A chance to speak personally with the NSF officers is highly valuable in terms of ideas for future funding.”

“Will probably partner with a new TCN to put my data in! Exciting! Talked with another participant about presenting at a conference next year.”

Grading the Summit

Respondents gave the Summit a median grade of “A,” with iDigBio affiliates skewing more positive than others (see Figure 15).



Future Summits

Locations. Respondents were asked to suggest locations for future Summits. Three individuals suggested regions that were more centrally located or in the West, while others mentioned specific cities in those regions including Salt Lake City (n=2), Denver (n = 2), Albuquerque, Bozeman, Austin, New Orleans, St. Louis, and Victoria, BC. Other suggestions were Raleigh, Ann Arbor, New York City, Boston, and D.C. (n =2). While one individual suggested returning to Chattanooga, another said, *“I’d rather have the Summit be in Gainesville then let’s say Chattanooga if it will allow those traveling to the summit to be fully funded.”*

Respondents suggested other factors that should be considered when choosing a location, including direct flights, access to a world-class natural history museum or large TCN, ease of getting around, and per diem costs.

“Airport hub or near one -- it’s a waste of money to pay regional airlines simply to get to the summit.”

“Somewhere that is easier to get to. It was not too bad, but did require multiple flights.”

“I think the venues and cities have been great so far. I like the idea of picking a place that is centrally located (more Western is OK too) with direct flights. This should be balanced with overall cost. For example, many major cities are expensive and per diem runs out quickly.”

“I like being near or at a natural history museum of some sort, especially if that could include a curator-led tour. Lodge at a park? Field station? Cities like Boston or New York would be great, but can be expensive unless public transport is used to stay out in the suburbs.”

“Any venue at a large TCN, with the TCN staff giving demonstration of workflows and techniques. The Smithsonian Institution would be good, they have many collections: give presentations at collections (our tax dollars at work).”

Three respondents suggest access to nature should be considered when choose a locale, but another observed that the appeal of the location (whether a city or a more isolated area) matters little as they get to spend so little time outside of the meeting venue. Given resistance in past years to extending the length of the Summit, it is unlikely that many participants have the ability to take additional time to explore any location.

It also is worth considering whether the selection of Chattanooga for this year’s Summit was related to the lower than expected turnout. While several people commented that they were surprised by how much they liked Chattanooga, others may have decided that the trip to a smaller city without a natural history museum was not worth their time.

Adding value. In the future, Summit participants are likely to be required to pay at least part of their cost of attending; consequently, we asked participants for ways we could add value to the Summit that would encourage their continued participation. Nearly all who responded noted that trainings and workshops would significantly add value, especially if the workshops were hands-on or required face-to-face interaction. Workshop topics mentioned multiple times include georeferencing, workflows, imaging techniques, and tools and skills that would facilitate research use of data (e.g., Data and Software Carpentry, data cleaning tools). Hackathons also appealed to some, but not others. Other suggestions included adding field trips, and attaching the Summit to a larger meeting. Another suggestion was to have host institutions cover some of the costs in exchange for expertise or the opportunity to showcase their research:

“Have host institutions pay for access to expertise that iDigBio provides by providing a venue and travel costs. So, for instance, University of X hosts the iDigBio Summit and gets a day part of the Summit to either promote their research or do workshops tailed to local challenges.”