**ITCR Training and Outreach Working Group Meeting**

**Thursday, September 13, 2018**

**4:00 - 5:00 PM Eastern Time**

**Agenda**

1. Ideas for future meeting(s)
   1. Invite Jeremy Warner to discuss the possibility of another ITCR special issue with *JCO Cancer Informatics*
   2. Security considerations for open source software
2. Roundtable Discussion: “How do you support training and outreach, and who in your group does it? What is their background? How are you measuring the effectiveness of your approaches?”

Other questions to consider for this discussion (feel free to add your own):

* Who is your audience? Does it differ for training and outreach?
* Do you consider your training/outreach activities to be distinct from one another?
* What have your challenges been?
* What has been most effective? (if you have been able to measure effectiveness somehow)
* How would you define effectiveness?
* How do you conduct your training and outreach activities? What modalities do you use? How do you assess the effectiveness of your training and outreach?

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| **Webex Information:**  JOIN WEBEX MEETING  <https://cbiit.webex.com/cbiit/j.php?MTID=m90b62cf4b0ffc9b0c9e13b53425cc602>  Meeting number (access code): 733 094 302    JOIN BY PHONE  1-650-479-3207 Call-in toll number (US/Canada)    Global call-in numbers:  <https://cbiit.webex.com/cbiit/globalcallin.php?serviceType=MC&ED=574640482&tollFree=0> |

**Prior Meeting Notes:** [NCIP Hub](https://nciphub.org/groups/itcr/training_and_outreach_working_group_teleconference)

**Feedback about meeting or suggestions for future meetings:** [Anonymous Qualtrics Survey](https://umichumhs.qualtrics.com/jfe/form/SV_cIkVstbpgnbs4xT)

**Outreach Activities Since Last Meeting** (please fill in with new rows)

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| --- | --- | --- |
| Name | Tool | Description of Activity |
| David Hanauer | EMERSE | Teleconference with members of the Scottsdale Institute |
| Mike Ryan | CRAVAT | Created a new overview Youtube Video |

**Attendees, please sign in here:**

David Hanauer, U of Michigan

Juli Klemm, NCI

Mervi Heiskanen, NCI

Izumi Hinkson, NCI

Mike Ryan, JHU / MD Anderson

Bradley Broom, MD Anderson

Rao Divi, NCI

Mary Goldman, UC Santa Cruz

Brian Haas, Broad Institute

Brion Sarachan, GE

Rudi Pillich, UCSD

Michael Reich, UCSD

Hayley Dingerdissen, GW

Martin Morgan, Roswell Park

**Minutes (everyone feel free to contribute):**

David Hanauer, EMERSE

Outreach supported by David, extensive knowledge of the software, hard to transfer to someone else.

Website, documentation (installation instructions etc)

Outreach to medical centers, other end users

Webinars

No good measure for effectiveness of the outreach efforts

Not using social media but would be interested to understand how others are using it

Customer relationship management person/software might be useful

Bradley Broom, Next-Gen Clustered Heat Maps

Using twitter and Facebook, YouTube videos (some under contract)

Facebook - Need people interacting with the page for it to be featured to more people

Talks and posters at conferences

Answering questions on Quora <https://www.quora.com/>

Used to have a technical writer, was very helpful

No dedicated outreach person

Google analytics can help determine where hits come from but need to construct URLs

Appropriately

No customer relationship management software/person

Tweets increase traffic to the site, helps new groups of people find the tool. Effects of one tweet lasts for a few days.

YouTube: expensive to develop content (time, edits) 10-15 hours/video

Link to Udemy course on SEO: <https://www.udemy.com/learn-digital-marketing-course/learn/v4/overview>

Rudi - Suggests an ITCR booth at major computational biology meetings, e.g. ISMB,

RECOMB, AACR.Pacific Biocomputing Symposium.

An exhibitor booth at ISMB costs around $3000.

Juli asks if end users could be asked to tweet about the tools.

Brion Sarachan - THRIVE

Word of mouth the main way for outreach

Effort in documentation, GitHub site <https://github.com/thrive-itcr/thrive/blob/master/SETUP.md>

YouTube videos with Camtasia

Martin Morgan

* A recent example -- annual conference afternoon workshops coordinated into a book. Reproducible, significant resource, being re-used by the community -- <https://bioconductor.github.io/BiocWorkshops>
* Based on information that workshop leads needed to submit for the meeting. General interesting paradigm - use information collected for a meeting to create a longer term useful resource.
* Slack is beginning to replace the developers listserv. Some novel activities / outcomes. (1) a post-doc coordinated 8 groups to submit a collaborative grant (the grant was written in a public google doc). (2) particular voices are heard more as they engage in extended conversation about technical issues, rather than a few voices from those with confidence to post ‘answers’. (3) sub-groups develop and interact extensively in ways that are not immediately relevant to the larger group; one such group developed, over their slack interactions, an interactive tool for exploring RNA-seq data that has matured into the [iSEE](https://bioconductor.org/packages/iSEE) Bioconductor package.

Brian Haas - Trinity

* Emphasize the importance/utility of forums

Notes from David Hanauer (likely overlap from notes above):

MD Anderson - security concerns are good

their new policy is that no servers cannot directly connect

Is anyone using any customer relationship management (CRM) software? How are those interactions with potential user/customers.

Bradely Broom from MD Anderson:

Mike Ryan is also on the call and involved in the project.

Their outreach: has made a web site for next generation clustered heat maps.

Tweets, Facebook home page.

Written on Quora web site - site about answering questions on topics, like "what is a good piece of software for making a heat map"?

Have made series of youtube videos (describing feature of the systems, how to get it installed).

Have made presentation of conferences, talks and posters. Posters have QR codes to get them to the site.

Papers such as the joint issue.

Bradley does majority of the online things like Tweets.

Under Mike's team they have a contract youtube developer. They are a lot of work.

There is no dedicated outreach person. They did have a dedicated scientific writer, but she just retired so they now need a new one.

In terms of audience, it is clinicians and biological researchers, trying to sell the feature set.

Statisticians and analysts are also audience.

Also to several platforms such as Galaxy.

In terms of measurement, they have google analytics, but big learning curve to use it properly. Can track: did user come to site because of tweet or something else? Need to include information about the campaign to track the source. SEO (search engine optimization) has been important.

Google adwords has been useful about search terms (but unclear how expensive it may be).

No specific customer relationship manager.

With Facebook, they have a page and they got a huge number of likes, and they never interacted with anything. That is a negative, since is you post on FB and no one comments, and then it puts it lower and lower priority.

They do see an increase in traffic to the site, after a tweet or poster.

Facebook is good if someone has a relationship

Twitter is better for getting to new groups of people, without existing relationships.

Tweets get good usage for several days, then you need to put out a new one.

Youtube videos were taking 10-20 hours per video, and contract rate was $50-55/hour, so about $500 plus per video. They have professional voiceover, which means you need to write a good script.

They provide screen shots or instructions on how to run it on the web, and the text/script. The better script, the less revisions/editing.

Youtube seems to be a good investment.

Mervi: ITCR won't allow auto-generated subtitles, so if anyone makes a video, please try to manually add subtitles.

May need a protocol for how to add subtitles to videos

Human generated subtitles are OK.

For creating the subtitles, Google can auto-generate them, and then you can manually go in and fix them up. HHS won't approve anything that says "auto-generated" for subtitles.

Word of Mouth: It is very powerful way to raise awareness of tools. For 2 years in a row with the "index project" was to present at a conference in July, set up as exhibitor, set up their own booth. It was a good way to let a lot of people know about the tool, meet collaborators, and set up integration efforts. So a good step forward for all ITCR project, maybe from 2-3 major conferences per year and get a booth as exhibitors under umbrella of ITCR project. Have people "man" the booth with the project, as a way to showcase what ITCR is doing and for developers to talk to people. So this would allow more interactions than 5 minutes at the end of a presentation. Need to "Sell" the product to users to let them know what we do.

There was something at ISMB in April. They proposed an ITCR session that was not accepted. But maybe a booth on its own even without a session would still be valuable. ISMB, AACR, ASCO, or others?

How much does it cost to rent a booth? If there was general interest it is possible even the NCI could pay the booth charge and the participants could go.

Might be about $1000 per meeting, but all depends on the size. There may also be academic rates.

Often they require that the booth be manned for the entire meeting, so if 5 days x 8 days that could be a challenge unless we had enough people who could be there the whole time.

Brian from GE. Software system called THRIVE. Analytics for tumor heterogeneity. For microscopy images, working with U Pitt. Word of mouth has been their main way to get the word out. They do already have connections at different institutions who do pathology research.

At the last ITCR annual meeting there was interest from an NIH intramural proteomics lab, and they have interacted during the meeting as well as afterwards. Used software to do some analytics.

In terms of how they do outreach they take approach to minimize effort that goes into it, and try to make it as self-service as possible and create good documentation.

Github site has a getting started page. Web page tells people who to get it set up, trying to make instructions as easy as possible. They ask people to let them know when they have issues but to start themselves. Most issues people have are local issues such as firewall settings, etc. Other than that the setup is meant to be easy and automated, and it works smoothly.

They do have a few youtube videos, but not doing anything to make them pop up for people, but mainly for people who know about the tool.

They have made the youtube videos themselves, using Camtasia, not free but works well.

Martin: They do not encourage people to tweet or comment on software, but when it does happen they try to capture it on their website, and retweet it etc.

Galaxy may have professional outreach positions to foster a community.

He made a link in the notes at a recent annual conference, they tried to make workshops available in a more coordinated way, and made a book through a GitHub repository since it is very consistent in structure across chapters. Very comprehensive. The workshops worked: individuals from the community worked on the workshop, and they were all provided a template to use markdown for a specific GitHub repository, and then the documents get processed. From their site it was "Easy" to orchestrate it. The developers had just enough guidance to do things in the same way. They all had to fill out the template in the same way.

Maybe something similar should be done with ITCR meetings, like videos or connectivity maps.

Another comments: Google Forums, seems to be a great way to communicate with user base. They have different tools within their Trinity Toolkit. Each tool has its own google forum. Bioconductor has long had a mailing list/forums. Is it better to have one combined forum or separate forums for each tool.

The way that Bioconductor has work has changed. Used to be one for developers one for users. The user one has been replaced with a support forum (like stack overflow). This is useful from a user perspective because you need to have a certain level of activity in a support forum. So if it is busy it keeps people interested. Many packages in bioconducter so often there are multiple concurrent themes in the support forum.

They have a developer mailing list, but is seems to be replaced by the developer community to a Slack Community, which has worked well.