

Understanding diversity and inclusion cross-platforms and cross-projects.

Do not necessarily know the implications.

Want to understand the implications of motivations; willingness of scientists to enable movement of communities--looking at the users not participants.

Psychological barrier of adoption.

Long term survivability of these efforts. Risk wasting volunteer effort. Degree of infrastructure important.

Community managers see improved success. Management of engagements is critical for project success.

- > what are the long term gains?

- > how to increase our own project sustainability : how to ... the infrastructure and support around that community and platform. Also do scientists have enough resources to support it?

E.g. a graduate student

- > Level of engagement between scientists vs users, how many projects they are involved in, short vs long term planning & sustainability.

From a metric standpoint this should be made clear. Funding strategies recommendations. E.g. have a funding org be able to say hey look at these and these metrics to keep in mind.

Value and interest for user vs scientist > sometimes scientist is done, and the publication is done. But the users want to keep working on it cuz they enjoy it

So then moving to the next project is important

Recommender systems of other projects (As an intervention between people who are getting tired)

Some projects dont have good/clear ending, so people dont know the scientific goals have been reached.

Ability to intervene where necessary for funding and sustainability.

Sustainability

How do you measure where people come from and where they go. How do you measure and facilitate that

What are people's motivations behind working on different and similar

Willingness of scientists to enable / move communities

- > owner vs user perspective. Psychological barrier to adopt any type of

Community can be more engaged than the research produces science.

How to move participants to new projects to offset community need for similar activity.

50% Zooniverse users are drive-bys

Are these questions rather than goals? Themes of interest rather than questions or goals?

For CS the market size / marketing is important. Zooniverse got big cuz big people mentioned it. Lots of Word or Mouth.

Marketing side is important. How do you establish your name in citz sci. Word of mouth? Need people with marketing experience. Work the network. Know the right people. Project champion with the social network that can push the project forward.

Literature: The Tipping Point book > why certain things take off and others dont.

Scientists have no idea how to promote.

Is increased participation a goal? There could be exceptions to that goal. For most the increased participation is a goal.

Interesting in the OS--what would be the flow through different projects

Lots of motivation literature within communities > because they want to improve recruitment and retention. Also what are you recruiting for and who? Simple vs advanced work users.

Anyone, anywhere vs. specific skills and participation.

Motivation = recruitment/retention. Recruiting for the masses or specific participants. Global approach to finding experienced participants.

Is it more valuable to get people in, or to get people to stay for a long time? Also different levels of dedication needed (E.g. hike 15 miles).

There is one project that turns people away (waitlist), but they connect and redirect them to different projects.

Where does the effort come from and go toward? Less a megaphone and more a razor. Waiting lists, other resources, other projects for participation.

Shifting protocol to engage more people and broader participation. (iNaturalist-style)

How do you track and identify | how do you get people in the right slot of participation. > how to select people in the right place? How do you measure people's skill level and progress? How do you filter people who are more advanced than others? Some tasks can be picked up  
> a paper saying people don't want to be taught about science > however, there are lots of  
They don't want to learn in a structured fashion. They do like to learn and get knowledge, but they don't realize they're learning > don't want to be schooled.  
> no one has done a discourse analysis on articulating what they learned.

How do you get the right person into the right research slot. Vetting criteria/filtering.

How do you measure skill level of participation. How do you differentiate

People don't necessarily want to be taught to science...adults don't want to be schooled in a structured setting. But project leaders want to teach. Learn--school--yuck? Learning is serendipitous. Study of participants regarding what they have learned.

Not sure metrics are survey results. Duration of engagement in a project. Number of projects. Measure--science terminology in a project.

Sophistication of language over time could be an interesting research topic--but the system is not set up for socialization. Exploration of participation, outside resources, exposure of participation to those resources and social engagement.

Scale of talus fields--how did you interpret categorical specificity.

Over time they answer the question more precisely.

Consistent recognition--degree of conformity

Is there a thing for creating a group to do something? : for example people getting together to go bird spotting in a certain region together, rather than individual contribution

- > this depends on the type of work; often work is a single task, a take it or leave it thing
- > different degrees of formalization
- > often people build structures
- > Wiki groups: some groups are good at one thing but not the other > might be their

focus and interest. Or is it a certain type of moderator etc, what causes this? Maybe its maturity level, size and how long they're active. Norms and values that are important and guide. Usually it's someone who decided to set up templates, in other groups that doesn't happen.

*?? how familiar are they with marketing and customer service literature? Cuz retention in that field is huugeee. And it sounds like they are working on re-inventing the wheel. Marketing funnel, etc.*

***I don't think they are very aware...It was something that was brought up a little bit ago...Scientist don't market well or how to market well.***

*Hmm, interesting. Well. Good thing we did sociology / business communitation :D seriously, the more I leave my bachelor, the more i see how and where it adds value. When i was in it I was like 'well, who would possibly need to know how to make slides? Psh. this is so basic'*

***RIGHT? I have found my calling for sure!***

*# retweet. Ok focus!*

Burritos, stickers, t-shirts etc. are gold to keep people in. Feebies and goodies.

Some wiki projects are super focused on engaging newcomers. Interesting to see how these cultures have been developed. Different levels of community maturity? Manifested in different norms or governance structures?

- > More informal and more about the topic.

- >Membership is also informal--a lot of people are on the list that don't participate, and a lot of people participate without being on the list.

Some projects force registration.

CitzSci projects are not all created equal. And engagement plays a role depending upon project need.

A lot of OS concepts can be applied to CitzSci, but not much has been done to look into it.

Social Network Theory--How did that social network happen? And this is happening throughout various citz sci projects.

Social network theory > denver zoo, ngo and scientists > > pike(r)? Monitoring process. One successful project inspires other people to do the same. Dont create a new protocol when you can re use one.

Following other protocols and metrics > some metrics keep showing up, snowballing effect. E.g. everyone is doing ph value

- >Organizational characteristics are needed for any project.

- >Are people learning from each other?

- >Normalization of protocols and platforms. Popularity of measurement (following the Jones');  
>Speed to success improving.

>What features are being adopted cross-platform and what is the degree of adoption and platform growth?

## **Goals**

Sustainability

Understand how people move between communities

## **Questions**

How are we defining the community? Platform or project. Looking at the organizational structure could influence community roles and degree of formalization.

Production and archive and dissemination of knowledge, discussion etc.

- Bringing in a librarian to organize the knowledge

- Criplean ? (andrea knows) > tools for people so they can highlight keywords in a comment/post whatever.

- Consider IT Tools that can be used to explore and tag content

- Community design; extra barrier in some project designs (Stack Overflow)

- Tagging, threading, live chat, forum etc. Not everyone wants to do this (Extra burden) but it would increase discourse analysis ability. > knowing and listening to your community and your community needs.

- Disqus (name of something) > aggregate forum and individual forum

- Decision making in community needs is difficult. Discoveries are happening in the Talk and Chat. Process is TOO Heavy right now for active talking/discussion.

## **Metrics**

How long do people stay involved in a project

Science terminology for a project > is people's language improving over time? And where are they learning it from. (how people learn from other's doing and speaking the work ? co-learning | group learning)

Certainty measurement ; people put in several habitats , while with experience they start honing in on what is asked of them, and they start picking the dominant habitat (could be cuz they learn more what is asked but also that they learn how to detect which habitat it is)

Degree of conformity with the protocol ; initially people dont get it quite right yet. In the first year people dont report negative data, but after that first year people start reporting 0 lists, suggesting that people start learning that negative data is valuable too.

Causality

Understanding norms within the platforms and projects at the meta level. Could this be a metric of overall community health?

Not a lot of built in/structured roles.

Speed to success

Development and adoption/implementation of new strategies, features, technologies,

Degree of growth of the platform > shows you how fast and how well new projects can be created and launched.

Demographics of participants--for funding, diversity/inclusion; barrier to engagement?

Clear and obvious payoff for both participant and research.

Metadata considerations--EU v US;

## **Diversity and inclusion**

If you wanted to measure it, how would you do that?

When do you get demo info?

At point of entry it might deter people, and you need to get it validates

> don't require it

> you can infer it from info that they

> incentives at 100% completion

> sample surveys

- also value for user; e.g. zip code will help customized alerts that are geographically. Age > can find fellow partners in crime. Query the platform to find similar people

Ties into the discussion on which people need more socialness than others > cuz those who would find friends would do this, while others wouldn't. > introduces bias into the data.