Knowledge Aggregation & Propagation

Bryan Bishop

#CESSummit2019
Oct 6, 2019

Slide makers regret here. My perspective to bring here is a Bitcoin developer perspective. I work with Bitcoin Core developers and know this side of the ecosystem. But I also bring another perspective, the biotech side. Lots of garage engineering that I've been a part of. There are amazing advances available in science. Don't need to go to a university lab to do this science. Don't need to be on the manuscript treadmill or whatever.

Basically, this is an overview of resources from the Bitcoin community. Mostly I'll talk about transcripts. And continue to talk about how terrible academia is.

Conference Talk Transcript

In my opinion, all conferences should have transcripts. It's a good way to respect your audience. There are lots of logistics around conference talks. The economic cost of going to the cost is quite high. As an estimate, do [number of participants * $1000] to get the cost to come there. Food, travel, etc. It's not always easy to get to them.

I started transcripts all the way back to high school. Did live transcripts to prove that the content in high school was awful and not worth my time. Did that for four years. Turns out no one cares. That's how I felt about high school.

One thing I've noticed is how important timing is. I publish the transcript by the time the speaker sits down. But 2 days later if you publish it, no one cares.

Conference Coverage

I've done a bunch of transcripts. A lot of them are from the Bitcoin development community. There's arcane knowledge at conferences that isn't communicated ever. Not everyone can attend. Or for people who don't know to which talks to attend in the 1st place, so how would they even know? I've done Scaling Bitcoin, MIT Bitcoin Exp for 5 years. Bitcoin Edge Dev++ for many years too.

Transcripts are interesting. People seem to like them. It's very competitive in a funny way. People seem to like it. It's fun. I don't just do it for the knowledge. Jim Carey typing quickly is fun example. I've gotten lots of praise. Look, even the last image is recursive. It's art!

How Does It Work?

You type very quickly. Use markdown. Bookmarking with CLI. Rapid bookmarks with jotmuch/buku. Hard to remember urls, so use tag bookmarks and then do tag search.

Look at this search on Google. Searching for my site that hosts the transcripts excluding the sites that host the transcripts. Here's one about the FBI worried about random biohacking. Lots of Bitcoin folks reference this in formal memberships.

On scale: I've done this for over 10 years. 1.5M words. 10MB of text. 650 talks/transcripts.

So if you want to find it, it exists! If you have a question—have Bitcoin developers considered what will happen with no subsidy? The answer is yes. And lots of people have.

If I'm going to be at a conference anyway, I might as well type transcripts. But I can't be everywhere So I suggest we fund someone else that's not me to go. Court stenographers make a lot of money. About as much as software developers. We might be able to fund someone that doesn't need that salary. An interested student.

Why not do transcripts via machine learning? I tried this. Had a 20% error rate. Mozilla did something similar. But trained on audiobooks not conferences.

Conference Quality

Again, multiply the number of participants * $1000. We should be optimized more for conference quality. The number of conferences where there are surveys before and after is 2. I've been on various PCs. EasyChair is often used. EasyChair doesn't make sense. Should do more invited talks. If you know someone is doing something interesting, ask them to speak instead of hoping they submit something relevant.

Bridge for Academia

For bitcoin in particular, 3 resources. Bitcoin-dev mailing list. IRC logs #bitcoin-wizards, #bitcoin-core-dev. Bitcointalk.org. If you have an idea, look here. The issue is it won't be found on Google Scholar search. Search through or ask someone who was there at the time.

Look at proof-of-stake. We solved that problem years ago. It doesn't work. Proof-of-stake is reputation. It doesn't work. Proof-of-work is unforgeably costly.

Bookmarks

I lost 50k bookmarks a couple years ago in a tragic bookmarking accident. Back up your data . It's important.

Meetlog

One other thing to speculate about. In order to understand this ecosystem of advanced concepts, we should track them. Could track them on a personal level. As a rolodex or reminder system. Who did I speak to, what did we talk about? It's especially powerful in Bitcoin community. We have high bus factors (if hit by bus, bad). Try sharding that knowledge.

Academia Is Broken

Academia is broken. Should be destroyed. It is illegal.

But I haven't heard of a different option for this. Prediction markets, reputation tokens. I'm not sure how that actually changes anything. I don't know how a prediction market will fix academia. How can you fix academia? If you need to get funding, it's based on reputation.

SciHub is great. Brief story. I may have accidentally doxxed Alexandra in public at a Harvard venue in 2010. I like SciHub, but it has problems. I've been looking for 50TB dataset. No one has it. Theoretically this is what librarians should be doing, but they've sold out to a consortium. I also have a rant against libraries obviously.

Disconnect Between Academia and Bitcoin Developers

I encourage people working in blockchain to reach out to Bitcoin developers in particular. People have thought about it a lot. But it's kind of like folklore at this point.