

[podcastnotes.org /2019/09/10/balaji/](https://podcastnotes.org/2019/09/10/balaji/)

# Balaji Srinivasan: Virtual Worlds, AI and Politics - What Bitcoin Did (Part I) - Podcast Notes

About The Author MMiller

9-11 minutes

[Home](#) [What Bitcoin Did](#) Balaji Srinivasan: Virtual Worlds, AI and Politics – What Bitcoin Did (Part I)

September 10, 2019

Check out the What Bitcoin Did [Episode Page & Show Notes](#)

## Key Takeaways

- **“I think VR will be to crypto what the iPhone was to the internet”**
  - Virtual reality and virtual currency is an obvious marriage
- **Combining telepresence [Beam robots](#) and [Boston Dynamics robots](#) will allow for a new type of remote work**
  - Any type of physical labor would be able to be completed remotely
- **The internet is going to catalyze a gigantic wave of mass migrations into towns/cities/republics, each with its own set of specific preferences**
- **“Cloud formations” is the term Balaji uses for a group of people who meet online and join forces in the real-world**
  - In the future, we’ll have cloud cities and cloud countries
- **Governments run by engineers will embrace crypto**

## Intro

- Host – Peter McCormack ([@PeterMcCormack](#))
- [Balaji Srinivasan](#) is the CTO of [Coinbase](#)
  - Check out the [Podcast Notes](#) from his chat with Naval Ravikant on the Venture Stories podcast

## The Voice vs. Exit Problem Solving Framework

- **Voice is choosing to change the current system, exit is choosing to leave it**
- Examples:
  - Voice is voting for change, exit is emigration
  - Voice is submitting a bug report, exit is forking
  - Voice is trying to fix the problems within a company, exit is leaving to start your own company

## Virtual Worlds

- Games like [Minecraft](#) and [Fortnite](#) are virtual worlds, just without the headset
- **“I think VR will be to crypto what the iPhone was to the internet”**
  - **Everything about the internet became more useful when you could use it in a mobile fashion with apps, email, etc.**
    - **“Mobile was useful because humans are mobile”**
  - **“Virtual reality (VR) and virtual currency (VC) go hand in glove”**
    - **VR and VC is an obvious marriage where proof points already exist**
      - Since the early 2000s, people have been buying and selling World of Warcraft Gold (WOW Gold)
      - Another example – frequent flyer miles

- A VR product that gets 10s of millions of people to use VR has not yet been invented (maybe the [Oculus Quest](#) will do the job)
  - Once that happens, you get a virtual economy
- In summary – “**We aren’t yet fully there yet in terms of what we can do over the internet**”

### The Future of Remote Work

- With remote work, people are essentially crafting pleasing configurations of electrons (AKA sculptures) with their keyboards/mice that are then sent over an internet connection to computers all across the worlds
- **We currently have telepresent** [Beam robots](#)
  - If you hook one of these up to a [Boston Dynamics robot](#), which can walk around, you get a “telepresent humanoid”
    - **Taking it further – this would allow for a “migrant worker” to work without actually having to leave their family or home country**
      - “This isn’t far off”
    - **This combination will allow for many more jobs to be done remotely. A few examples:**
      - Miners
      - Farmers
      - Plumbers
      - **Any type of physical labor – “Huge chunks of the economy would then be amenable to digital work”**

### Non-player Characters (NPCs)

- This is a concept from video games – anyone you interact with that’s computerized is an NPC
  - Ex. – A shopkeeper in Grand Theft Auto
- Taking this to real-life:
  - The people you walk by on the street are essentially NPCs to you, and you to them
  - You are essentially an NPC to a cashier, and they to you. Both parties are following a script
  - Why does this matter?
  - **A virtual world would seem pretty realistic if only a handful of humans were playing as long as there were a ton of NPCs present**

### VR Worlds Will Make Everyone a Celebrity

- “What VR, AI, and this NPC thing would do is hyper-deflate the experience of being a celebrity”
  - **In a VR environment, where people don’t really know who’s real and who’s fake – everyone can be a winner and feel popular**
    - When this happens, the VR environment becomes superior to the offline environment
  - “**VR... every woman a queen, every man a king**”

### But won’t a VR world always feel fake?

- Balaji gives the following example:
  - When Twitter first started, people only tweeted basic thoughts/comments (like what they were having for breakfast)
    - **“The idea that Twitter could start a nuclear war 12 years later, that every politician would be on it in every country and every language.... that people would routinely get fired for what they tweeted, that people would care so much about it that the venue of politics would shift from offline to this public war zone we can’t seem to escape from... all of that would seem IMPOSSIBLE. But, that’s what happened.”**

### The Internet Increases Variance

- Meaning: **It always results in both more upside and more downside**
  - For example:
    - With Uber, you have both extremely long rides and extremely short pickups
    - Someone with a 9-5 job can go on to make a killing with crypto

- Content consumption ranges from 10-second GIFs to 10-hour Netflix binges

## Balaji's Use of Twitter

- Balaji uses Twitter as a tool to learn
  - **"I actually spend most of my time on Twitter in read-only mode. I learn about geophysics, I learn about the politics of some country I've never visited... You can learn about history. All types of stuff. It's like a library... combined with a civil war."**

## The Internet Will Bring About a Wave of Mass Migrations

- **"What I think we are doing, not just with Twitter, but Facebook and all these other things, is we are unbundling and will eventually rebundle the nation-state"**
  - This is the most important consequence of VR, crypto, smartphones, the internet, etc.
  - Balaji refers to this as "Tiebout sorting"
- He explains:
  - If people have perfect information, can move anywhere, and migration costs are low... folks can move between jurisdictions to the area that best suits their preferences
    - For example – you have your vector of preferences (preferred tax rate, gun policy, gay marriage policy, etc.) which is then treated as a search query
      - Based on the results, you'd migrate to that area
  - This happens online already with the way you curate who you follow on Twitter and choose which Facebook groups to join
  - **"That aspect of folks finding their ideological compatriots in the cloud and then migrating physically is the story of the century. That's the big thing the internet is going to catalyze – a gigantic wave of mass migrations."**
    - Balaji wrote more about this in his article – [Software is Reorganizing the World](#)
  - **"If you can find your compatriots and move to them, your movement cost is zero, and you can work from the new place without disrupting your income, then, no matter how mixed up the initial world is, you will get this rapid sorting of people into the Republic of X, town of Y, and city of Z that represent their respective beliefs"**

## Cloud Formations

- **Folks are meeting online and joining forces in the real world (Balaji calls these "cloud formations")**
  - Examples:
    - 2 people who met on LinkedIn connecting over coffee
    - 2 people meeting on Tinder and going on a date
    - 70-100k people coming together for a week at Burning Man
- **"There's no upper limit to the scale and duration of these cloud formations"**
  - In theory, you could take 100s of thousands of people from the cloud and have them live together for 5-10 years (AKA a cloud city)
    - Eventually, we'll have cloud countries

## Smart Governments Are Run by Engineers

- **"Not all governments are dumb. Some of them are smart. Some of them are run by engineers. Those governments will embrace crypto in different ways."**
  - Estonia, Israel, Singapore, and China are all run by engineers
  - Balaji brings up something China did:
    - "The great firewall they implemented in the early 2000s as an instrument of policy seemed pretty far ahead... How many people in the U.S. government even know what a firewall is? Not too many."
    - "It was pretty smart for China to deplatform Twitter before Twitter deplatformed China"
  - Balaji thinks the Chinese government will roll out their own cryptocurrency
  - **"Lots of small governments in this century which are run by engineers will embrace crypto"**

## Software CEOs as Heads of State

- **“I think lots of software CEOs will eventually start becoming effectively de facto heads of state”**
  - As an example, imagine what Mark Zuckerberg has the potential to do:
    - He could place a push notification at the very top of 2 billion Facebook feeds
    - He could make every single person read his point of view
    - He could start a Facebook newspaper like Twitter moments
    - “There are like a thousand things he could do. He has more distribution than any newspapers or nation-state.”
  - **“Other future software CEOs will probably more consciously think of themselves as building countries”**
    - You could easily build a country in the crowd and materialize it in physical space – “I think that’s where the future is”

### Additional Notes

- **“I was a maximalist before Bitcoin maximalism occurred... I call myself a Bitcoin nationalist”**
- Check out [Facebook Avatars](#)
- This new Chinese app, [Zao](#), allows one to superimpose their face on another within any video clip
- Balaji recalls a quote from [Jim Barksdale](#) – **“The only two ways I know how to make money in business are unbundling and bundling”**
  - The mp3 unbundles albums and Spotify rebundles them into playlists
  - The internet unbundled news and Twitter rebundles it into feeds, hashtags, etc.