

The Genomic Blockchain Consortium: A Call to Action

- David Koepsell

I grew up during wartime, and was a casualty as many in my generation were. Specifically, the Beta/VHS wars raged as video recording, home taping, and movie rental businesses grew. VHS survived, for a while, until DVDs came along. But the war hurt consumers, and didn't result in the best format prevailing at the time. Most of us who were involved in professional video recording (as I came to be for a while) used beta, and preferred it until digital formats came along. It was simply a better, higher quality format. Consumers preferred VHS, but early BetaMax adopters found their libraries eventually obsolete and inaccessible when their machines died.

We're living in exciting times, but the scent of war is in the wind. In late 2016, as the genesis of EncrypGen's Gene-Chain was being fleshed out, we assumed that a first mover advantage would allow us to define the standard for the up-and-coming genomic blockchain. Now, as a number of other companies begin to vie for the same or similar space, our initial concerns for the privacy of consumer data and advancing scientific research impel us to call for a joint effort to protect both aims, understanding that others in this space share these aims. The alternative, where competitors create blockchains that cannot ensure the protection of consumer data, and the interaction of chains to allow maximal use in scientific research, smacks of war, bloody war, with casualties among the stakeholders we hold most dear.

If consumers believe that the choices they make today for storing and sharing sensitive data may limit them in their connections to networks of similar data, as opposed to opening up a range of choices for transacting data, then they will be wary to move to blockchains while they wait for a clear "winner" to emerge. In the early days of automobiles, competing companies realized that by agreeing to certain standards they could ease adoption generally of the new technology, and make the lives of consumers better, as well as sell more cars in the process.

We have known that the genomic blockchain space would soon become crowded, and it is in the process of doing so. Competition is good, in general, to ensure progress, and time will tell which platforms will become best suited to the demands of the market, and which enjoy the largest consumer bases and market penetration. Meanwhile, it behooves those of us who share the goals of promoting individual ownership, benefit and control of genomic data, and advancing genomic science, to agree to develop mutually beneficial standards, platforms that can communicate with each other, and mechanisms for people to more easily move their assets among our competing platforms, to avoid the sorts of monopolies that cell phone carriers and cable companies have had to cede for the sake of customer freedom.

Consortia in science and technology, to create and advance standards, abound. The Gene Ontology Consortium is but one prominent example...



We propose, that in order to avoid the pitfalls discussed above, and enable the benefits that genomic blockchains promise, we should:

- 1.) Form a Consortium of Genomic Blockchains
- 2.) Organize as a separate not-for-profit entity this consortium
- 3.) Create a democratic governance structure
- 4.) Under the consortium, propose, vote on, and establish technical as well as ethical standards for the purposes of:
 - a) ensuring that consumers and their data are portable, safely preserved, and protected
 - b) creating some interoperability at some level to better serve the searching for, payment, and use of genomic data by platform customers
 - c) devising ethical guidelines to protect privacy of user data across platforms

We believe that we have a great opportunity now, before the wide adoption of any particular genomic blockchain, to create an environment that both fosters competition and helps advance the goals of consumer empowerment and scientific advancements, that we have all stated publicly, motivate our products and services.

We invite the management from all of those in this space to sign below and join us in moving the efforts forward to create an independent Genomic Blockchain Consortium.

Signed,

A handwritten signature in black ink, appearing to read 'David Koepsell', is written over a horizontal line.

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