

# ELEUTHEROS — ISOLATION AND GENERALIZATION

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Eleutheros was designed to segregate problems and the sole purpose of doing this is to boost innovation like never before. The goal is to set the standard high and then smash it with highly innovative solutions. Moreover, this is not the first time a technology is all set to evolve into something that was barely thought to be achievable. A couple of decades ago, routers were pieces of software running in university computers.

Back then, the internet was difficult to access, had connectivity issues and its performance barely enough to run text-based applications. That has changed and now and with high-speed connectivity we can do everything from live web conferencing, binging on some of our favorite movies and even paying our bills in a secure manner.

All of this and more is going to be possible with the blockchain technology, which is exceptionally well-layered and far more advanced than previous networking technologies. Let us now briefly discuss the three levels of a blockchain and the problems associated with the blockchain technology.

### **1. The application level (level #3)**

This is where the creation and processing of block contents take place. Bitcoin-the-application is a successfully emulated<sup>23</sup> example of an excellent early-on blockchain application, much like email is an example of an excellent early-on application of Internet technology. However, in the world of blockchain, there is enormous scope for innovation and that goes beyond digital currency applications.

### **2. The network level (level #2)**

The network-level aspects include P2P networking, block collision management, etc... The seminal work that we have already discussed is the source of almost all trustless blockchains, often starting from the same code base<sup>24</sup>. Therefore, all that is required is the need to generalize, not to change or re-invent it.

### **3. The mining level (level #1)**

At this level, the concern is the deployment of secure, high-quality and reliable blockchain networks. As a matter of fact, the rewarded-mining

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<sup>23</sup> Essentially all existing digital currencies are either directly based on Bitcoin-the-application, or closely emulate much of its operation.

<sup>24</sup> With very significant differences. Eg the Ripple network is more fundamentally innovative than most existing blockchain networks.