Proposal: The Everipedia Network and Blockchain

Larry Sanger (@lsanger, yo.larrysanger@gmail.com)
Drafted October 2017, updated December 2017

For longform discussion of this and other documents, please use the Everipedia subreddit. For more ephemeral blockchain-related chat, you could use the Everipedia Telegram channel.

Please discuss this! This is not the Everipedia white paper. If you want to edit this document, ask Larry (I'll need to know something about you). It is not official. It does not necessarily reflect the views of Everipedia's principals or of future partners. None of the document is something that we have decided to build or implement. We're just gathering data.

This document proposes one vision of some very general architecture and policy for the encyclopedia blockchain that Everipedia is starting. Everything here is tentative, and there is little argumentation or evidence presented, though there is a lot of thought behind most points here.

Names

1. **Name of the blockchain network.** The name of the blockchain network we're starting (including the blockchain itself, nodes that host it, publishers who use it, possibly an independent nonprofit to hold relevant IP, etc.) is the Everipedia Network.
2. **Name of our website.** In this document, when I want to refer to the Everipedia *website* that you can visit today, I will write "Everipedia.org".
3. **These are different things.** We want the Everipedia Network to include information from reference sources of all types, of which Everipedia.org will be just one.

Scope

4. **Union set of encyclopedias.** Our goal with the Everipedia Network is to build not just another encyclopedia, but, insofar as this is possible, the union set of all encyclopedias and encyclopedia articles.
5. **Larger than Everipedia.org (the website).** Therefore, the encyclopedia network we mean is not Everipedia.org, the website, as it is today but all the world's encyclopedic information, either included in the blockchain itself or linked from it.

6. **Aim: *all* encyclopedia articles.** We're not just a compendium of all encyclopedia articles on the Everipedia Network. We're a compendium of all encyclopedia articles, period.
7. **Unlimited scope.** Like Everipedia.org itself, the Everipedia Network will permit articles about everything—unlike Wikipedia, it will have no network-wide "notability" requirement.
8. **Limited to encyclopedia articles.** But articles must actually be *encyclopedia* articles, as opposed to various other things that might be confused with encyclopedia articles.
9. **Content.** The data in the Everipedia Network might consist of: articles; other content assets (e.g., image, video, and sound files); meta-data about content (URIs, authors, sources, date published, timestamp, licenses, etc.); information about individuals (both contributors as well as raters); ratings and comments by individuals; and information about groups, and particularly about membership in groups.

Management

10. **Location/hosting.** As with any blockchain, the Everipedia Network will be located/hosted at many different nodes, with no node being specially privileged.
11. **Decisionmaking by a charter-based democracy.** Similarly, after its inception, decisions about the Everipedia Network will be made through a non-hierarchical democratic process of its member-contributors according to a community charter.
12. **Membership determined by labor on the blockchain.** There would be no concept of membership in the Everipedia Network other than that of contribution to the blockchain.
13. **Decentralized management.** The latter point entails that management would always be decentralized and not correspond to any entity legally constituted (as of 2017) as a membership organization. The Everipedia.org company will take pains to clarify and ensure that management becomes and stays decentralized.
14. **Everipedia.org's role.** Everipedia.org's role is organizer or initial instigator. In other words, Everipedia.org will launch the project; manage the first (and, only to that extent, "official") project website; and own the Github account for the software repo that runs the blockchain.
15. **Everipedia.org, one publisher.** Everipedia.org is committed to running a complete the Everipedia Network node (edit this) and to publishing all open content articles and media contributed to the Everipedia Network.

16. **Other publishers encouraged.** As with any content blockchain, the Everipedia Network will be available for publishing and use, in whole or in part, by any other website.
17. **Secure and uncensorable.** As with any blockchain, the Everipedia Network's information cannot be censored. While publishers will be able to select (and omit) articles, all nodes will be required to share the same contents.
18. **Immutable.** Insofar as the Everipedia Network is, or supports, a publisher of content, it cannot be redacted.
19. **Individuals on the Everipedia Network.** Individuals may determine and publish on the Everipedia Network what tags/categories apply to themselves, and in this way they may constitute themselves as ad hoc groups.
20. **Groups on the Everipedia Network.** In addition, groups may identify and publish lists of their members to the Everipedia Network, as well as other metadata.
21. **No privileged individuals.** With respect to the Everipedia Network itself, no individual, regardless of qualifications (or lack thereof), will enjoy any encoded rights (other than ownership rights) not shared by all others.
22. **No privileged groups.** With respect to the Everipedia Network itself, no group, whether business, non-profit, academic, or government, will enjoy any sort of rights or authority not shared by all others.
23. **Software and API.** Everipedia.org will begin a software project that will not only initiate the blockchain, it will also create an API so that those interested in using and adding to the blockchain's content. We will use IPFS to do that.

Ownership

24. **Ownership of whole.** As with any blockchain, the Everipedia Network will lack an owner.
25. **Blockchain software ownership.** The software, data structures, and protocols that run the project will be available under free licenses such as the MIT License and GNU GPL. Any necessary IP that is beneficial to all might eventually be owned by an independent nonprofit (as opposed to Everipedia.org).
26. **Freedom.** As with any blockchain, the Everipedia Network is institutionally committed to the freedom (of both *gratis* and *libre* varieties) of its content. In other words, the content will be cost-free as well as open to read and republish (both directly, via an API, and indirectly, via various publishers).
27. **Proprietary articles permitted.** Individual articles listed by the Everipedia Network may continue to have owners and even to require payment to view. So, for example, if *Encyclopedia Britannica* or an academic publisher wished to

register an article behind a paywall on the blockchain, it would be able to do so. What remains free is the metadata about those articles.

28. **Copies must be included for purposes of vetting.** The full text and media of all articles must be included in the blockchain. While proprietary articles *can* be included, their full text and media must be included in the blockchain, perhaps encrypted, so that Everipedia Network contributors could programmatically check data about them.
29. **Proprietary content not compensated as highly.** While a publisher might earn tokens for uploading metadata about its articles, it would not be compensated as much if the articles themselves were not uploaded.

Basic charter

30. **Rules and charter, why. the Everipedia Network** must, both because it is a blockchain and because it is a repository of encyclopedic content, have rules that determine what data it may and may not include. The body of rules will be called the Everipedia Network "charter."
31. **Privacy.** The Everipedia Network will adopt procedures, enforced in an objective and fair way by all nodes, to prevent the inclusion of private information not allowed to be made public, such as credit card and government ID numbers. Stiff penalties including removal as a node must be enforced for violation.
32. **Automatization of enforcement.** To the maximum extent possible, the Everipedia Network software community is committed to building software needed to vet submissions of all sorts.
33. **Human labor.** Because the data collected and characterized by the Everipedia Network is content, some decision-making, with regard to what may be included in the Everipedia Network, must be performed by human beings. Short of truly sophisticated artificial intelligence, such as does not exist as of 2017, there is no way to automate certain important decision-making.
34. **Rules, training, and certification.** The crucial importance of helping fallible human beings to make correct decisions is such that the Everipedia Network community will need to publish rules as well as train and certify node operators (or their representatives) in their use.
35. **Dispute resolution and democratic decision-making.** There will not, of course, be unanimous agreement about many issues. As a result, a fair, speedy process will be established according to which particular issues are decided. The results of this decision-making will determine whether some data is included in the Everipedia Network.
36. **Automated identification of bad actors in the system.** It can be predicted with near certainty that some people will test and attempt to expose any weaknesses

in the system. This behavior, as well as the cruder vandal and "trolling" behavior that it resembles, will be exposed to the greatest extent by software (through patterns of extremely nonconforming judgments on cases) and, if that is not possible, then through a democratic system mediated again to the maximum extent by software.

37. **Staking for proposing changes.** Every change made to the Everipedia Network (including whole articles, edits, ratings, other metadata, etc.) is allowed only by staking some small amount of tokens, which are not redeemed if the nodes reject the addition.
38. **Software to support human labor.** Again, to the maximum extent possible, the Everipedia Network software community is committed to building tools needed, for example, to publish questions to decide, collec answers, and fairly calculate and report the results.
39. **No Avoidance of bureaucracy and unnecessary complexity.** While the above might suggest layers upon layers of management, in fact we wish all processes always to be only as complex as necessary, and no more. Therefore, all rules and procedures will have to undergo stringent tests before acceptance.
40. **Only minimal editorial quality standards.** There is no need for, and extremely strong reasons to want to avoid, the vetting of articles for *quality.* The minimum standards regard a variety of issues: privacy; that an article is in fact an encyclopedia article; that it is not an exact duplicate of another article already represented on the blockchain; that an article does not merely plagiarize its sources, without attribution; and other principles that have little or nothing to do with any controversial judgments of quality.
41. **Competing versions of open content articles.**The Everipedia Network will feature rules and procedures for accepting, and objectively characterizing, the interrelations (e.g., being in "threads" of related articles) and the differences between, versions of open content articles. This is particularly important considering that Wikipedia is constantly being updated, and that other resources have their own versions of Wikipedia articles.
42. **English not the only language.** Although the project will be launched in English**,** the Everipedia Network will when feasible go to great lengths to ensure that the blockchain is language-neutral. Among other things, this means that there would be translations, or support for translations, for all tags, a protocol for deciding that articles in different languages are about the same topic, and other such matters.

Monetization/tokenization

43. **What work tokens stand for.** Previous points described a great deal of work done on the part of many people: authors, moderators, coders, and more. People at work on those steps needed to authenticate articles and information about them.
44. **Baked-in record-keeping.** That some work with regard to some content—for example, that an article of a certain name really can be found at a certain URL—was done by some individual will be required in order for data to be accepted into the Everipedia Network. Every piece of data in the Everipedia Network will have an author and timestamp. This means a trail of documentation about every article will be available.
45. **How authors might be paid.** Article authors and editors might be rewarded in tokens based on an average word count of submissions that have over a certain number of ratings, with a multiplier based on some sort of average ranking and perhaps reported traffic.
46. **Various activities compensated by tokens.** Everipedia Network tokens (in varying amounts, depending on the nature of the task) will be awarded to users according to various work they do on the system—not just the original uploading of an article.