

OpenBoard, an ErgoHack VI proposal

Motivation

Authoritarian regimes suppress free expression as much as possible to cling on to power. In the past, this was easily done by controlling the press, and nowadays the CCP in China has to maintain a large internet censorship firewall. However, the internet has centralized around a few key entities, becoming much easier for a state to control.

In contrast, fully censoring a public blockchain with thousands of distributed validators is much harder. Ergo, with its Proof-of-Work (PoW) consensus, expressiveness, and privacy capabilities, lends itself perfectly for an open "pin board", untargetable by autocracies.

Core Idea

OpenBoard's core idea is letting authors *pin* a few boxes of text, publicly available on the blockchain, and uncensorable unless all Ergo node's IP addresses are blacklisted. It would consist of an app fetching available pins from an Ergo node to display locally, and an easy way to update one's own pins with a transaction.

The components of OpenBoard are planned to be roughly as follows:

- **Author tag:** is minted as a token, with the OpenBoard policyID and its own unique ID.
- **Pins:** The output box of the author tag uses the additional registers as the posted content, the pins.
- **Update a pin:** By sending the author tag to oneself, the register boxes (pins) can be updated with new text.
- **View pins:** A local client scans the blockchain for author tags, and displays them by chronological order.
- **Unique author IDs:** authors could be followed/blocked individually by following/blocking certain author IDs from the local OpenBoard app.

Key features

Anonymous authors

With PoW, one could quickly fund a completely pseudonymous wallet, and create pins without any links to their real world identity. Mixers built on Ergo are an alternative way of funding an author wallet protected against dangerous states.

Self-moderation

As a public decentralized forum, traditional content moderation is inherently not possible. For this reason it's crucial that the OpenBoard app lets users easily block certain authors if needed. It may be more of a "bug" than a "feature" in certain situations...

Piggyback Ergo's P2P

Similar non-blockchain social media projects exist, but are too easily taken down by a state with resources. By piggybacking on Ergo's network, OpenBoard doesn't rely on volunteers hosting infrastructure, but relies on Ergo's validators instead. Blacklisting every Ergo peer and continuously updating that list is the only way to prevent people from accessing its content.

Tipping

Tipping authors could be done very easily by simply sending ERG to their on-chain wallet. Anonymous authors should use mixers if sending the tips to addresses linked to their identity.

Future ideas

Replies

Reply to a pin by referencing its ID in a separate pin. The viewer app could then organise reply threads.

Topic tags

The content shown by one's local viewer could be filtered if authors additionally add topic tags to their pins.