



The Distributed Library

M Ryan Hess
Digital Initiatives Manager
Palo Alto City Library

Talk Overview

- What is Web3?
- Libraries & Web3
- The Distributed Library & BiblioCommons

What is Web3?

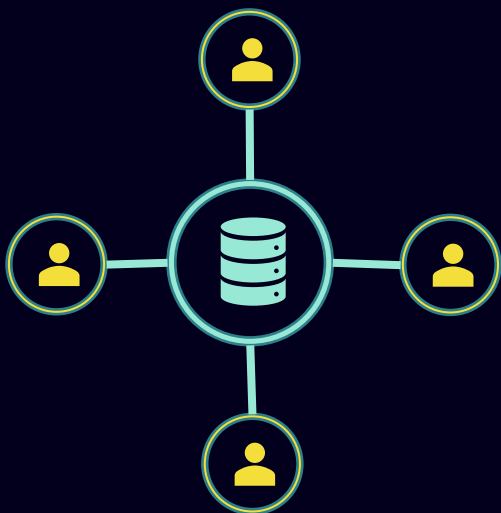


Web3 Technologies

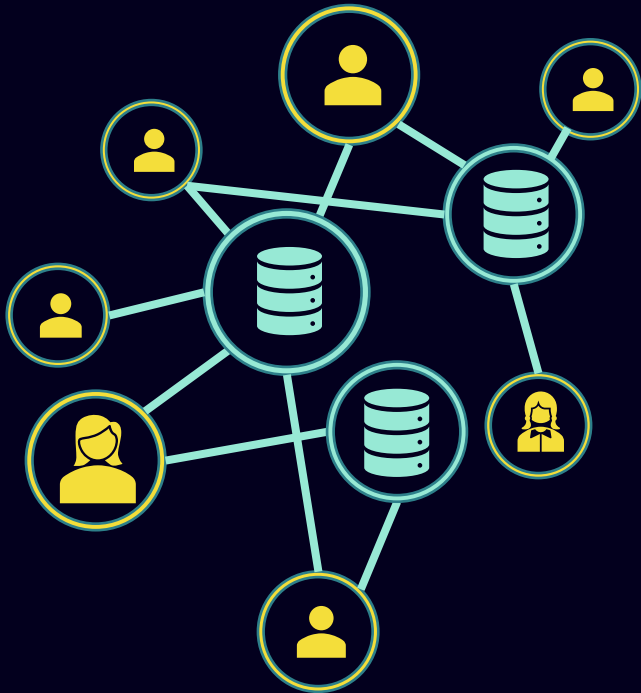
A network diagram with glowing nodes and connecting lines on a blue background. The nodes are represented by small circles, some of which are brightly lit with a white or yellow glow. The lines connecting the nodes are thin and have a slight glow, with colors ranging from light blue to green. The overall effect is a sense of a dynamic, interconnected digital network.

- Distributed Web
- Decentralized Data and Applications
- Blockchains, DAOs & NFTs

The Distributed Web



Web 1

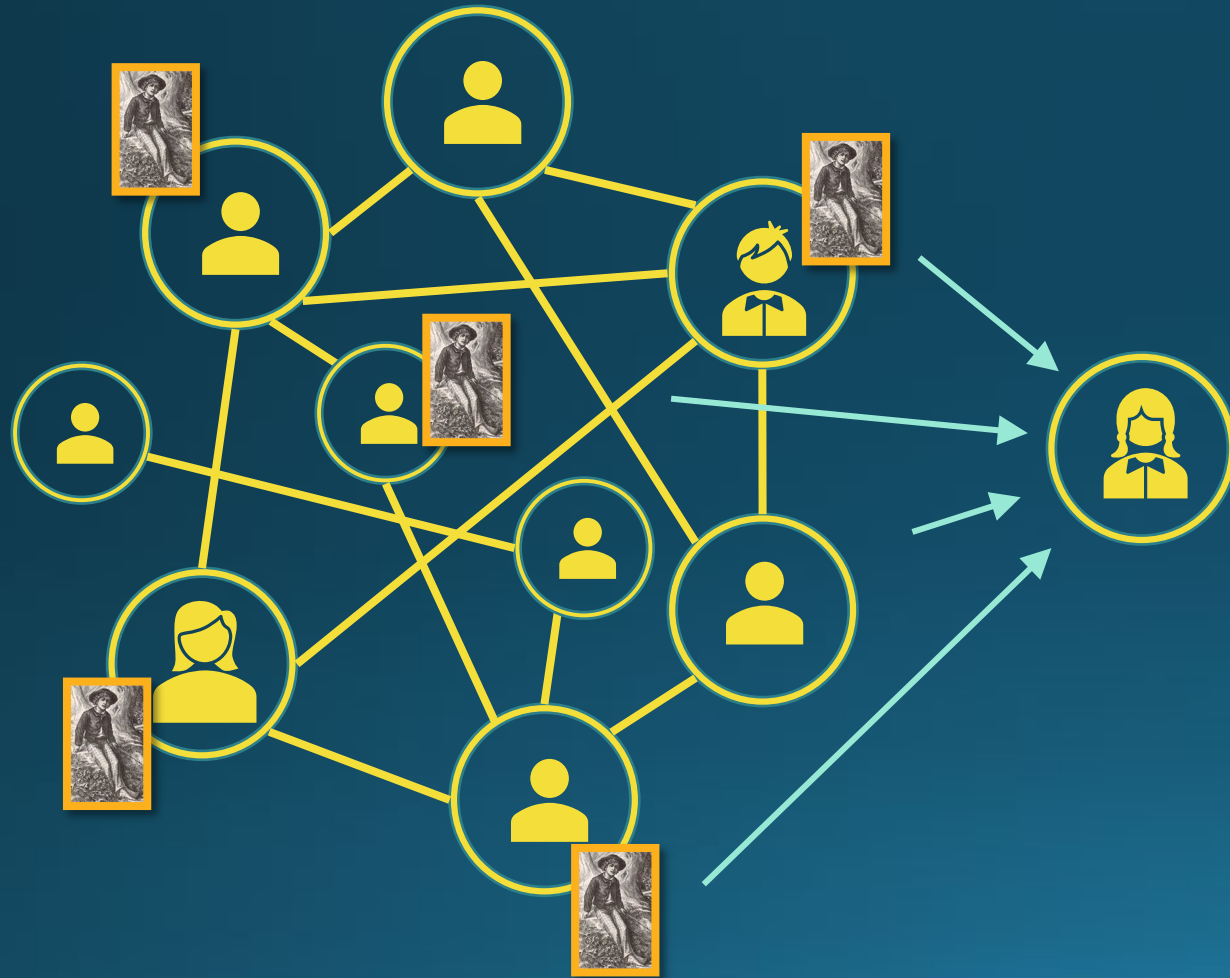


Web 2



Web 3

Interplanetary Tom Sawyer



Web3 Features

A network diagram with glowing nodes and connecting lines on a dark blue background. The nodes are represented by small circles, some of which are brightly lit with a white glow. The lines connecting the nodes are thin and have a slight glow, creating a complex web of connections. The overall aesthetic is futuristic and technological.

- Trust and Privacy
- Decentralized Identity and Anonymous Authentication
- Peer to peer Publishing
- Public Transactions but also Private
- Permanence & Resiliency



Blockchain \neq Bitcoin

Blockchain

A Distributed Ledger

- Trust
- Programmable
- Privacy
- Transparency
- Durability
- Security

Blockchain

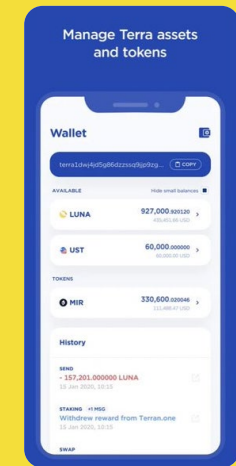
Unique Identifiers (Hashes)

terra10sulxxxxhuhbfdj4tez3h26sf6qa7va3yyzx44

Passphrase (Private Key)

sun flower mega store school delta moon tiger

HASH Calculator: <https://xorbin.com/tools/sha256-hash-calculator>

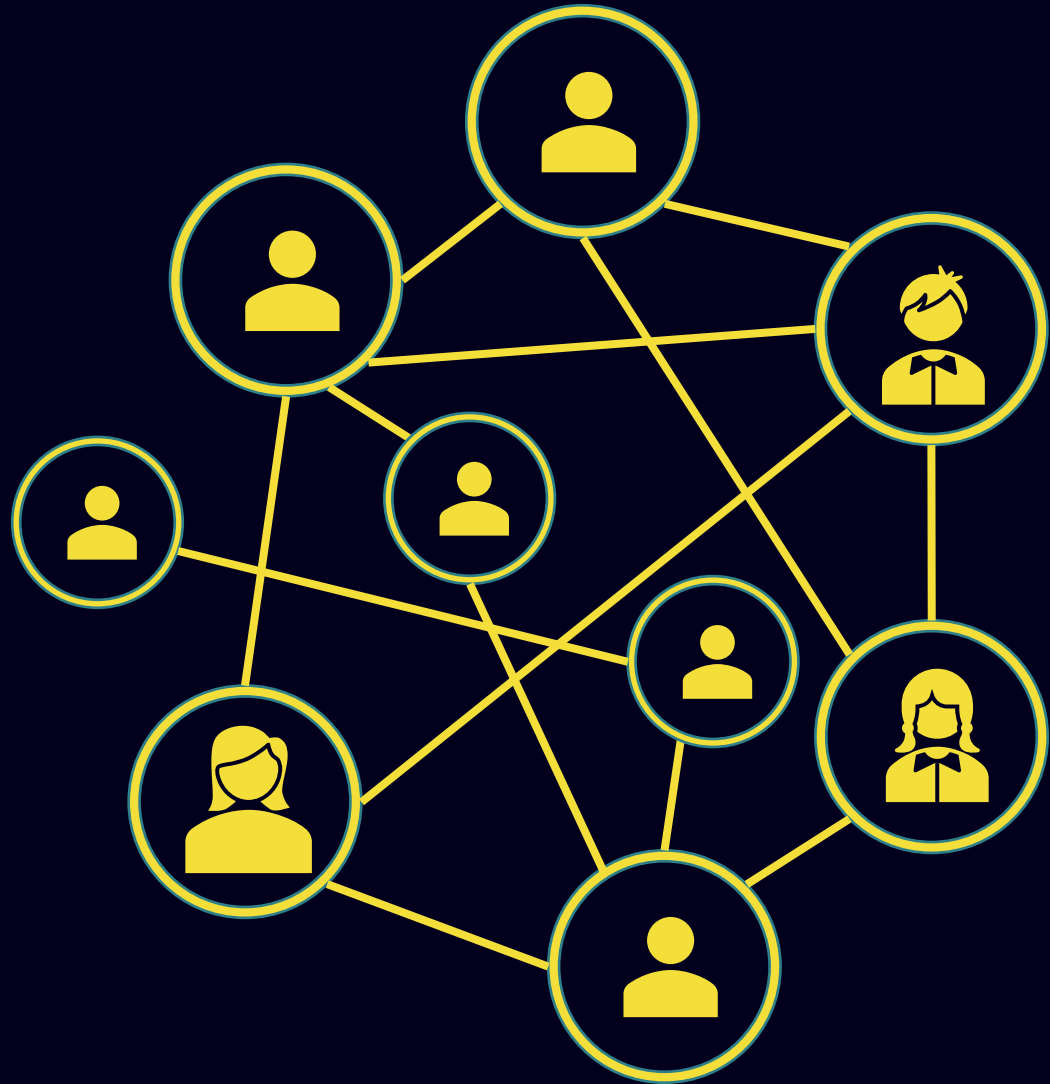


Bottom Line

An abstract network diagram with glowing nodes and connecting lines on a blue background. The nodes are represented by small circles, some of which are brightly lit with a white or light blue glow. The lines connecting the nodes are thin and have various colors, including white, light blue, green, and purple. The overall effect is a complex, interconnected web of nodes and lines, suggesting a network or a system of relationships.

A technology imbued
with library values.

Impacts on Society



Overturning *Everything*

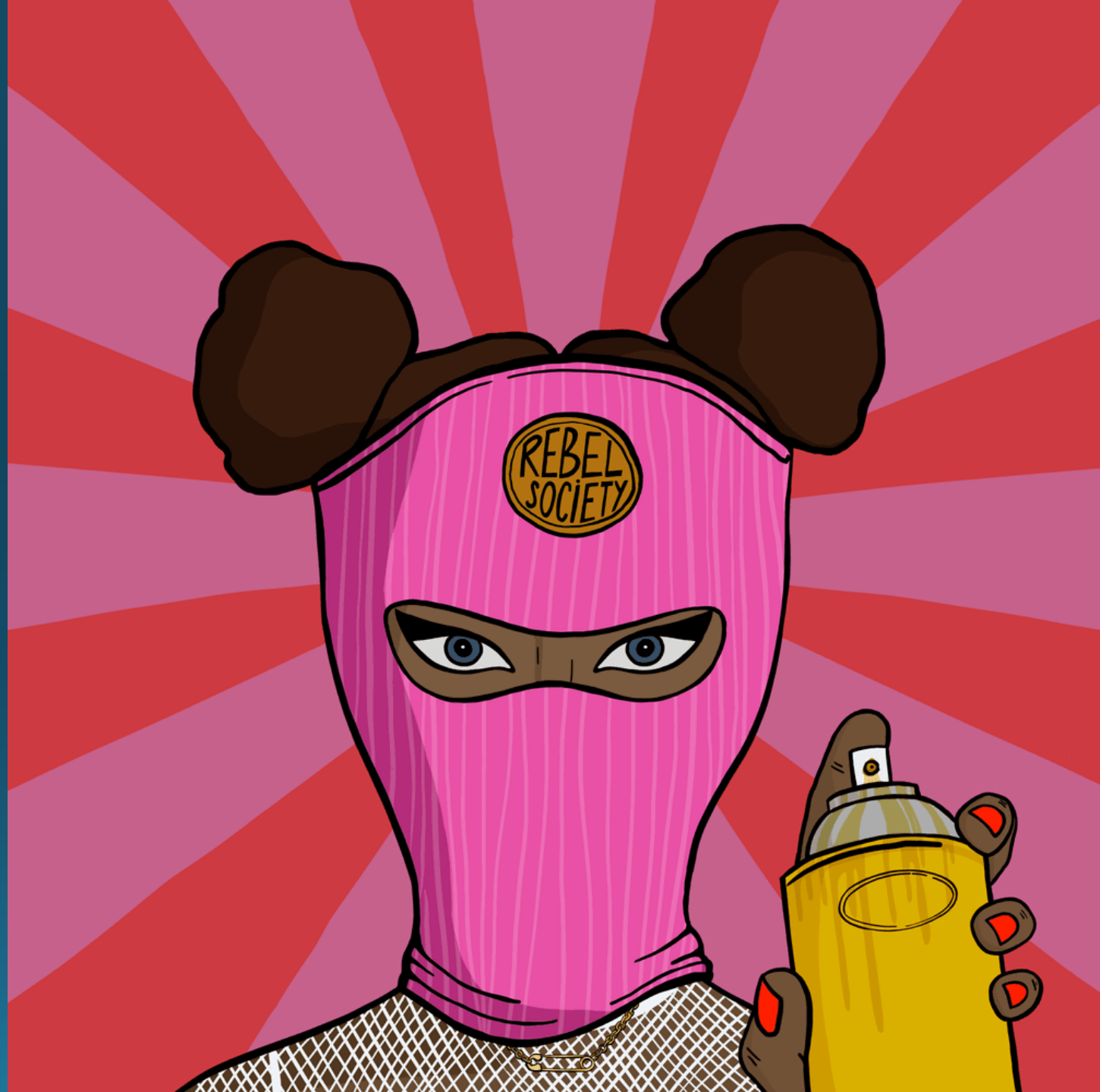
Finance

Political power

Copyright & Publishing

Speech

Privacy



Libraries & Web3?



Web3 | Risks & Threats

Risks

- Requires radical overhaul of conservative institutions
- Development costs
- Open questions on government regulation
- Web3 identity remains a work in progress

Threats

- Publishers are exploring blockchain to safeguard their businesses
- Potential for new paywalls
- Tokenization may lure academics/authors away from Open Access

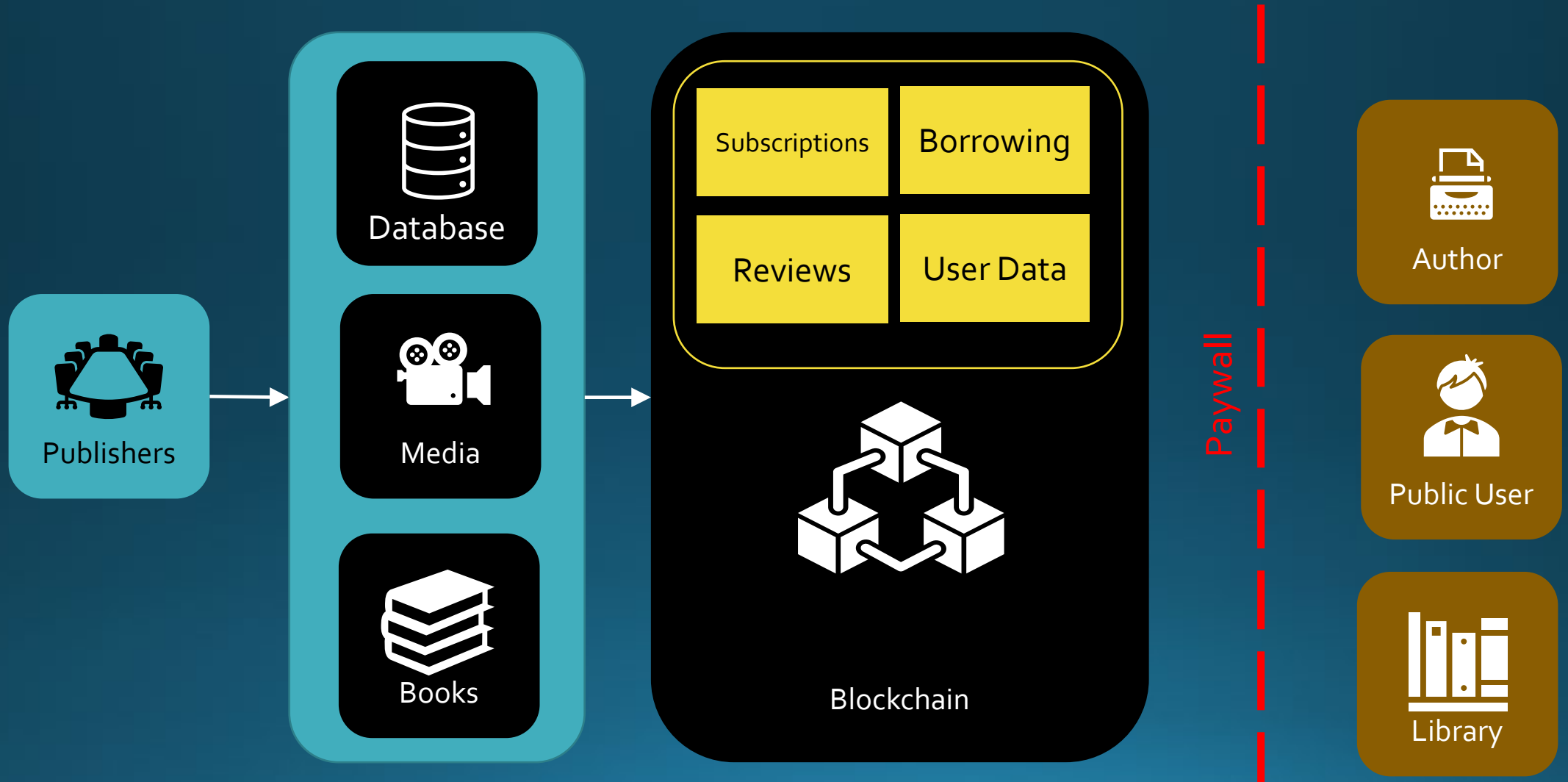
Web3 | Opportunities for Libraries

- Automated (mostly)
- Metadata Support
- Open Access
 - Verifiable data
 - Widest audience
- Redundancy (LOCKSS)

Web3 - Library Applications

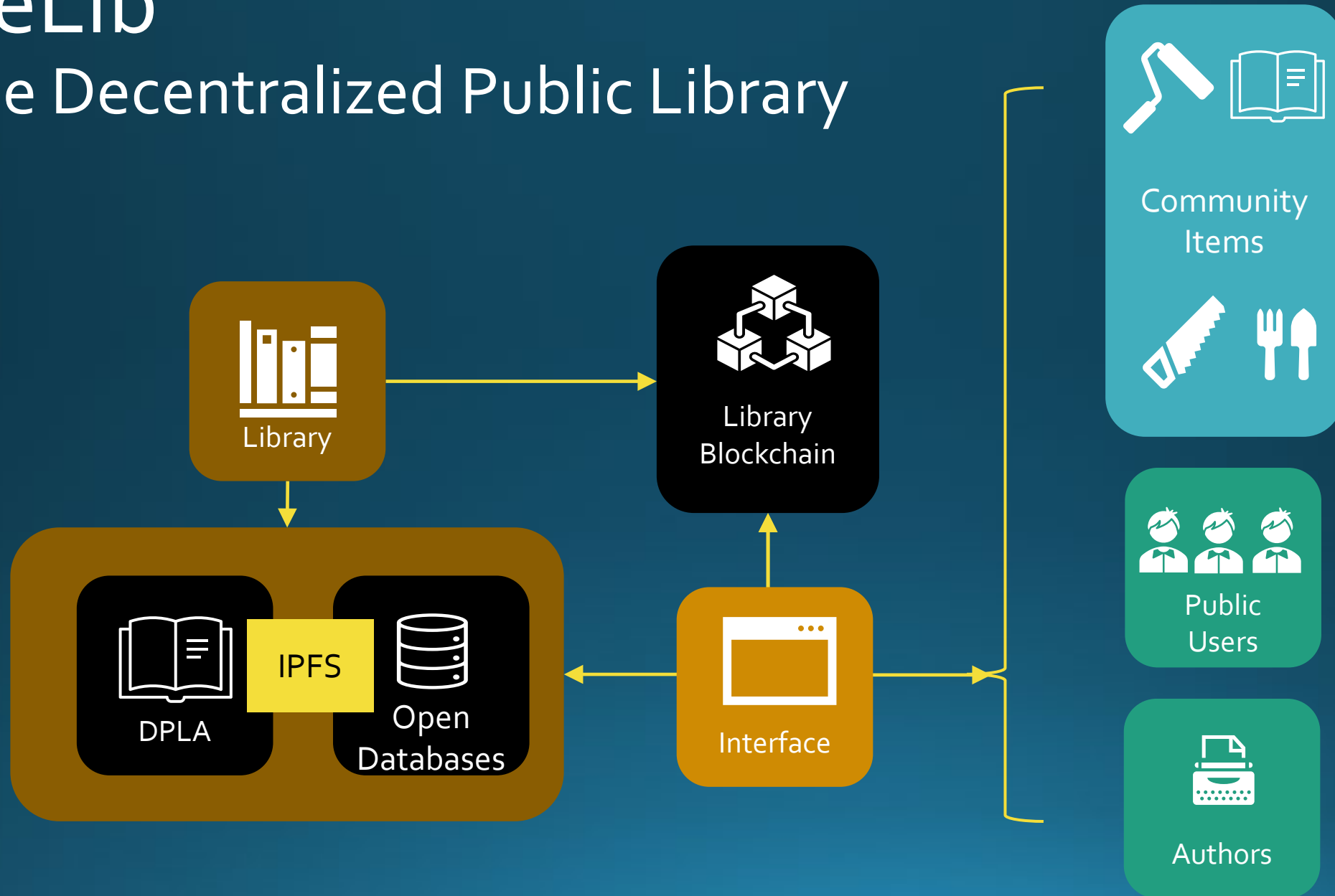
- Universal item records
- Universal library cards
- Permanent, Secure Digital Collections
- Open-repositories of eContent

Web3 Publisher Model



DeLib

The Decentralized Public Library



Decentralized
Libraries
&
BiblioCommons



Thanks!

M Ryan Hess
Digital Initiatives Manager
Palo Alto City Library
ryan.hess@cityofpaloalto.org

