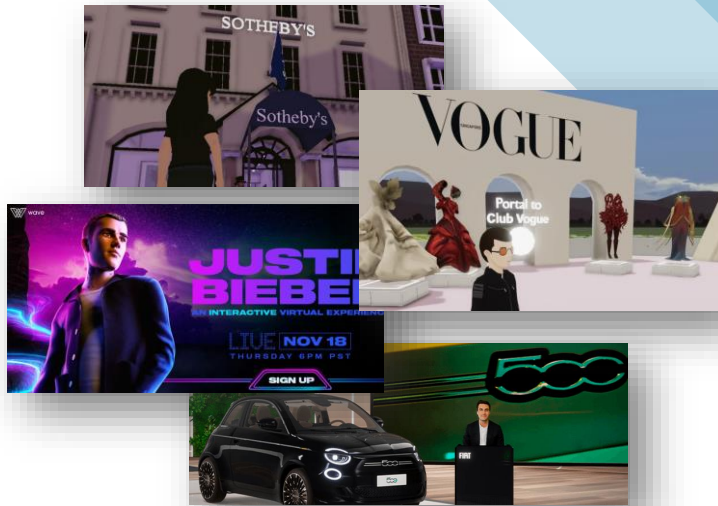# The Data Ownership Revolution

## Web3 is coming, and it will power individual health data ownership

Presented by David Lindstrom
Chief Innovation Officer, M Corp
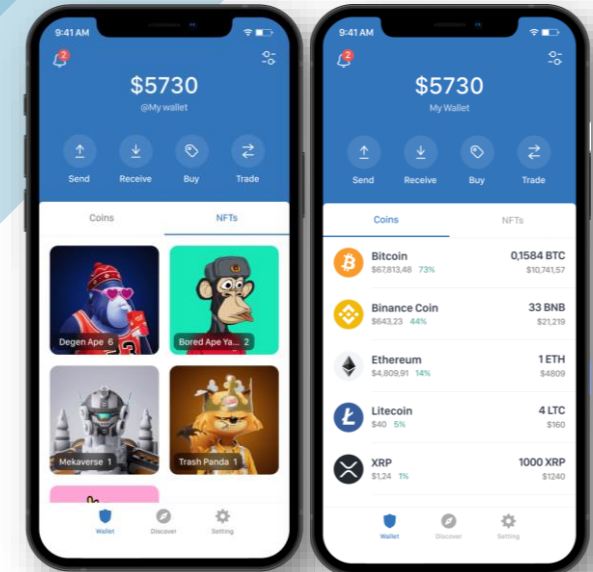
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# Web3 is coming



**Immersive retail & entertainment experiences**

**Gaming platforms and digital worlds where users vote, build, and interact**

**Ownership of digital assets, property, and currency**

# just follow the money to see it...

## $300 m

revenue of Nike in 2022 from Web3 products and royalties

*Source: Covalent*

**Immersive retail & entertainment experiences**

## $2.2 bn

revenue of Roblox in 2022

*Source: Roblox*

**Gaming platforms and digital worlds where users vote, build, and interact**
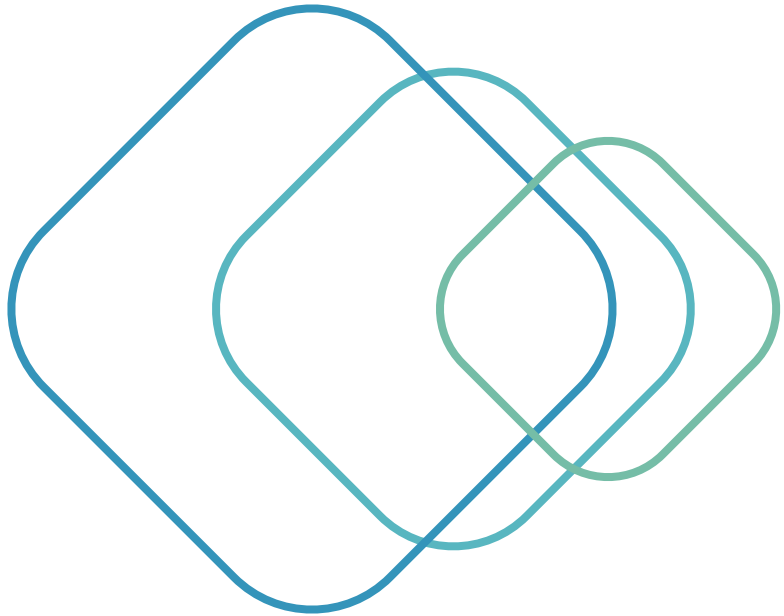
## $1.3 tn

current digital currencies mkt cap

*Source: Yahoo Finance*

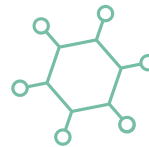**Ownership of digital assets, property, and currency**

# What is Web3?

An ecosystem of technologies that support decentralized, transparent and secure peer-to-peer transactions, enabling new possibilities for personal data ownership online.

**Supported By**

Blockchain

Decentralized Networks

Smart Contracts

Digital Tokens (including NFTs)

Digital Wallets

Asymmetric Encryption

Cryptographic Proofs

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# Web3 is coming to Healthcare

"Solve.Care Unveils Web3.0 Development for Healthcare"
Bloomberg – December 2022

"World's First Medical Metaverse Consultation Ever Performed in the Aimedis Avalon Metaverse"
Yahoo – September 2022

"New app [Innerworld] brings mental healthcare into the metaverse"
NBC – February 2023

"authorize a county recorder to…issue a certified copy of a birth, death, or marriage record … using blockchain technology …"
California Senate Bill 786 - September 2022

# Immunization data will be managed differently

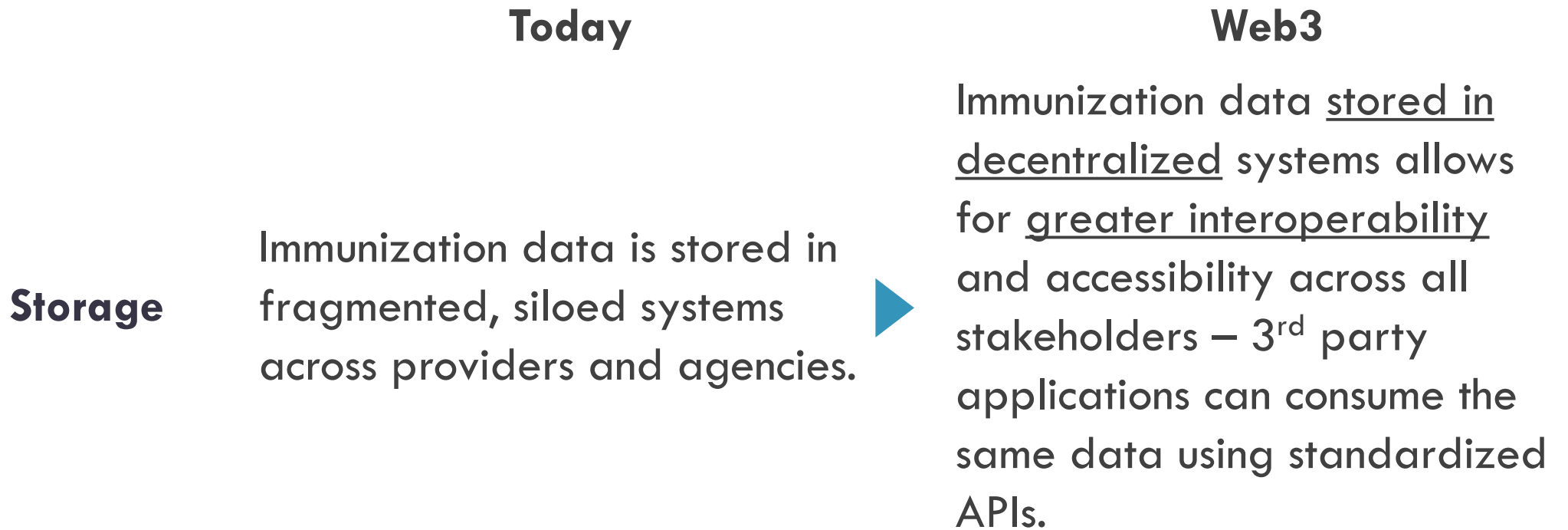**Today**

**Web3**

**User Access & Transparency**

Individuals have limited visibility into their vaccination history – some only have it captured on a hand-written card; Individuals can request a copy of their immunization records.

Individuals can <u>access their immunization record at any time</u>; new immunization records are <u>available instantly</u>; full <u>visibility into what is collected, stored, and shared</u>.

# Immunization data will be managed differently

**Today**

**Web3**

**Storage**

Immunization data is stored in fragmented, siloed systems across providers and agencies.

▶

Immunization data <u>stored in decentralized</u> systems allows for <u>greater interoperability</u> and accessibility across all stakeholders – 3rd party applications can consume the same data using standardized APIs.

# Immunization data will be managed differently

**Today**

**Web3**

**Privacy & Security**

Inconsistent encryption of data; centralized data creates prime target/single point of failure for cyberattacks.

Encrypted, decentralized immunization data using cryptographic keys minimize the need for sensitive data sharing and nearly eliminate cyber threats.

# How might a Web3 experience look to a provider?

**1** A Provider scans a QR code that a new Patient displays from the mobile health pass on their phone. This shares their encrypted Protected Health Information from other providers that they consented to sharing (e.g., health history, vaccination record, etc.).

**2** The Patient's information is read and saved by the Provider's medical health record system.

**3** The Provider administers a vaccine to the Patient and confirms the dose and other details in their system.

**4** The Provider sends this certified, encrypted record to both the state's immunization registry and to a decentralized network for the Patient's health pass to be updated.
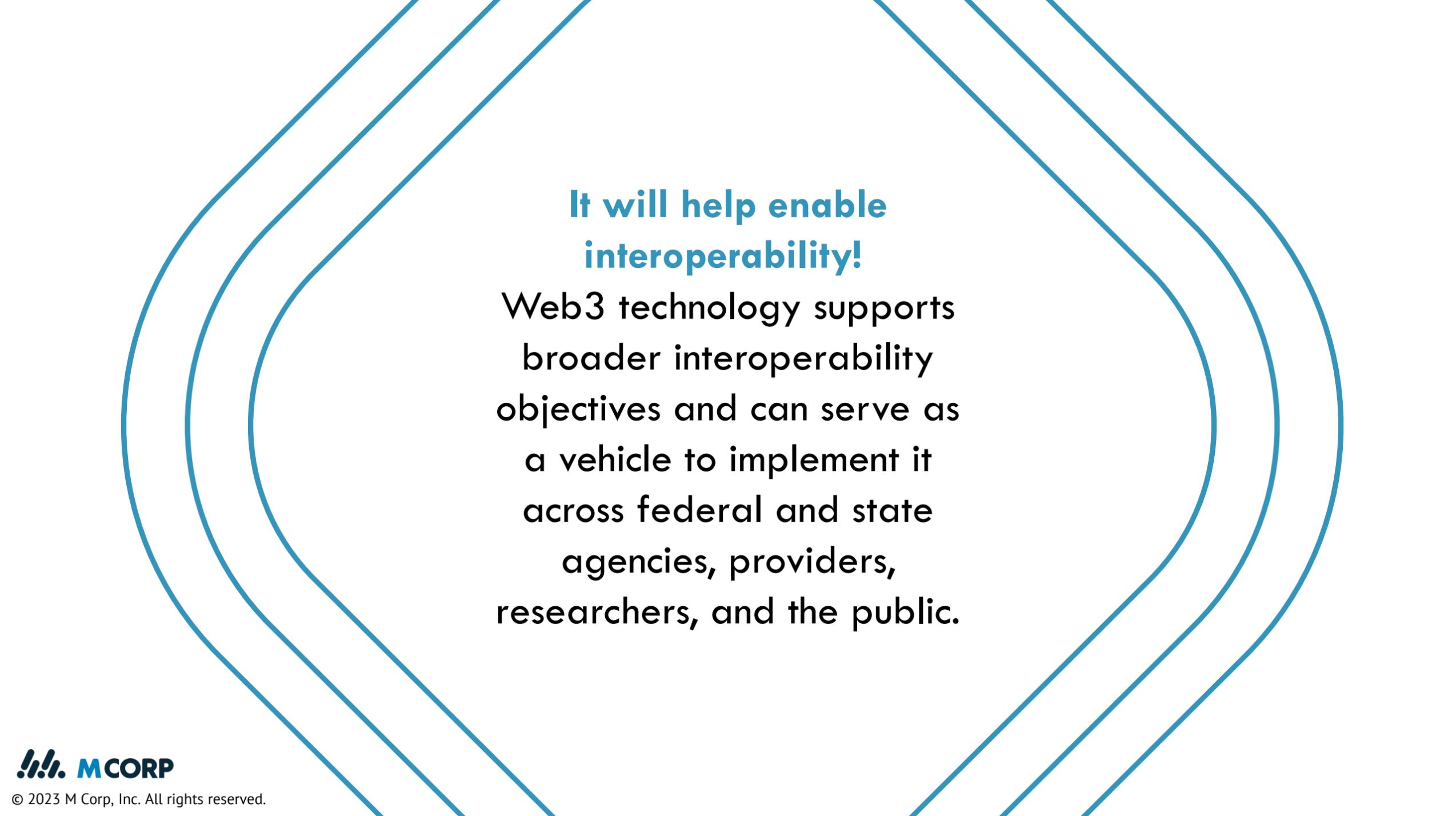
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# How might a Web3 experience look to an <u>individual</u>?

**1** The new Patient displays their mobile health pass to her Immunization Provider, immediately identifying her and sharing her health data.

**2** The Patient receives their vaccine dose.

**3** Before leaving the Provider's office, the Patient confirms their new vaccine dose in their mobile health pass.

**4** The Patient can share their complete vaccination history with other health providers, researchers, and even other state immunization registries with ease.

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# What does Web3 mean for you?

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**It will help enable interoperability!**

Web3 technology supports broader interoperability objectives and can serve as a vehicle to implement it across federal and state agencies, providers, researchers, and the public.

**It allows for better data!**
No more matching or duplicate reconciliation for immunization records. Individuals' health passes use public/private keys as unique identifiers.
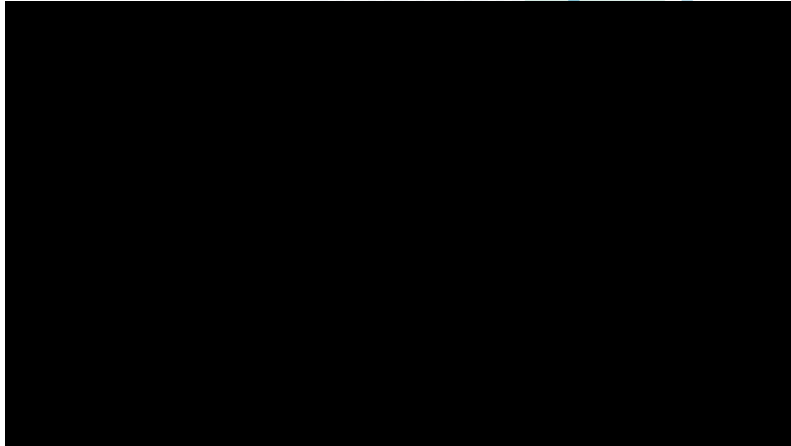
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**It will significantly reduce constituent requests** for immunization data because the public will have anytime, anywhere access to their state-sanctioned data.

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**It will make validating Guardian/Child and other custodial relationships is easier.** Real-world legal relationships can be mirrored and validated using encryption key associations.

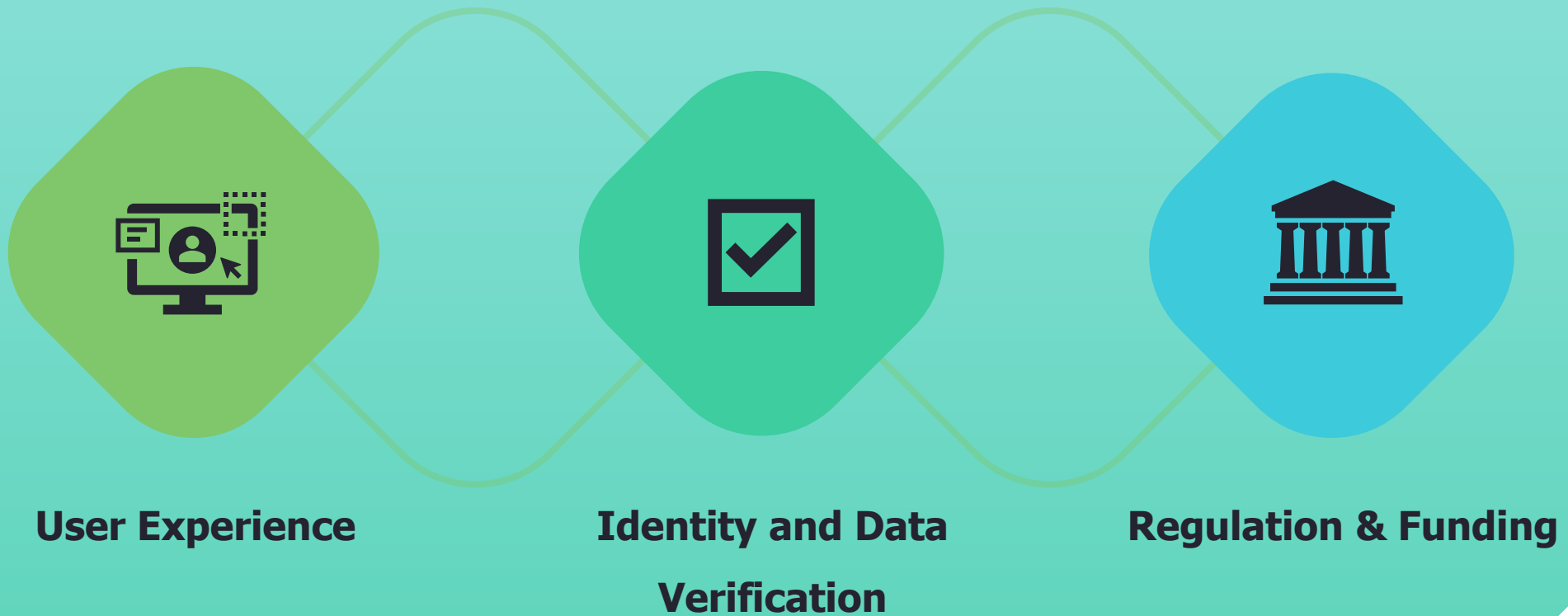# Can we leverage existing Web3 tech to achieve this vision?

Our prototype demonstrating some of these concepts with immunization data transactions on a decentralized network.

# So, what are we waiting for?

# There are still some hurdles to overcome…

**User Experience**

**Identity and Data Verification**

**Regulation & Funding**

# Despite these Challenges

**The Web3 Revolution *is* coming to Healthcare and Public Health...**

it will support greater interoperability between public health agencies, health service providers, and researchers, all while enabling individuals to own their personal health data!

**Your takeaways.**

1. Younger generations are adopting Web3 because of the ownership and privacy benefits as well as the freedoms it enables - They will soon demand Web3-based solutions across every aspect of their lives, especially sensitive data.

# Despite these Challenges

**The Web3 Revolution *is* coming to Healthcare and Public Health...**

it will support greater interoperability between public health agencies, health service providers, and researchers, all while enabling individuals to own their personal health data!

**Your takeaways.**

2. Healthcare and Public Sector organizations are already exploring solutions using Web3-based technologies, like blockchain. Don't fall behind - make Web3 part of the discussion with your partners and peers.

# Despite these Challenges

**The Web3 Revolution *is* coming to Healthcare and Public Health...**

it will support greater interoperability between public health agencies, health service providers, and researchers, all while enabling individuals to own their personal health data!
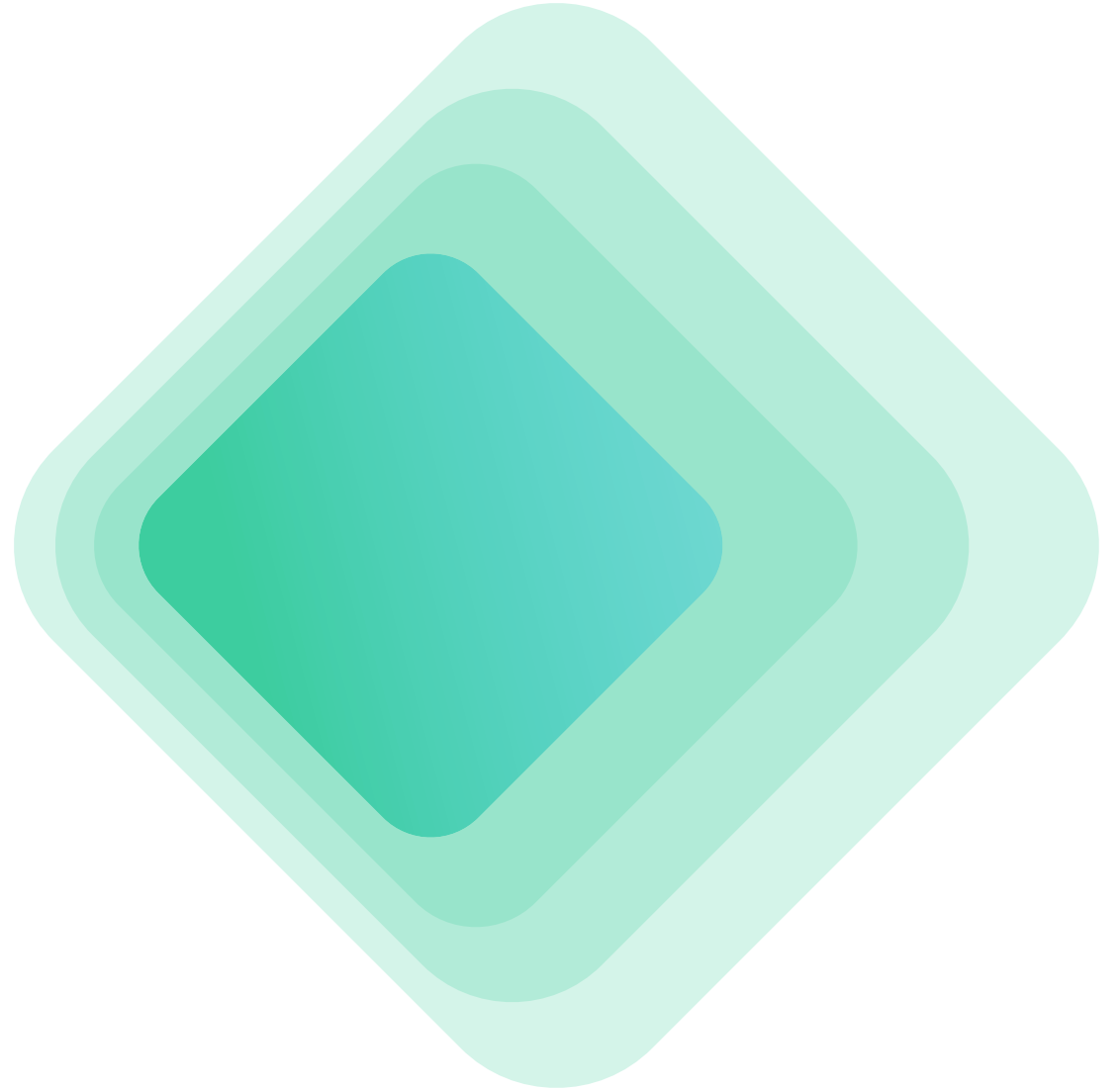
**Your takeaways.**

3. Stay curious about Web3 and how it can benefit your organization!
   To start, join us at the M Corp table to continue the conversation – we'd love to partner with you on helping your organization prepare for a future in Web3!

# Thank You!

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**M Corp, Chief Innovation Officer**

**David.Lindstrom@the-mcorp.com**

# Sources

| Slide # | Type | Information |
|---|---|---|
| 2 | Screenshot of Interactive Media | Sotheby's Decentraland Screenshot taken by M Corp employee in Decentraland on 4/6/23 |
| 2 | Image | Justin Bieber Concert Flyer  https://www.xrtoday.com/virtual-reality/wave-to-host-justin-bieber-metaverse-concert/ accessed 4/5/23 |
| 2 | Image | Vogue Fashion Week Booth https://www.theverge.com/23668846/decentraland-metaverse-fashion-week-2023 |
| 2 | Image | Fiat 500 metaverse showroom  https://dappradar.com/blog/virtual-worlds-soar-record-land-sales-generate-311m accessed on 4/5/23 |
| 2 | Image | Roblox Character "try buy" https://www.roblox.com/games/7041939546/Catalog-Avatar-Creator accessed on 4/5/23 |
| 2 | Image | The Sandbox "Minecraft" https://www.nintendo.com/store/products/minecraft-switch/ accessed on 4/5/23 |
| 2 | Image | Meta "horizons world" https://en.wikipedia.org/wiki/Horizon_Worlds#/media/File:Horizon_Worlds_logo.jpg uploaded January 30, 2022 |
| 2 | Image | Digital wallet images from https://trustwallet.com accessed on 3/23/23 |
| 9, 10 | Images | Provider and individual images from MSFT stock images, cutout people |

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