

## Let's Share Links to Existing Standards and Specifications #12

TrevorFSmith started this conversation in General



TrevorFSmith on Apr 17, 2021

From the kickoff meetings and chats it seems like we ~all agree that we should use existing standards and specs when possible.

Let's use this discussion thread as a reference library of the metaverse-related standards and specs.

We won't use every single standard and spec listed here because we are doing something new. But, if we don't use a standard or spec then we should clearly know what the old work provided and why we don't want it. See Chesterton's fence.



## 7 comments · 2 replies

Oldest Newest Top

edited -



**TrevorFSmith** on Apr 17, 2021 (Author)



- Security Assertion Markup Language: SAML
- OAuth 2
- W3C permissions
- W3C trusted user interface
- W3C security context UI
- Khronos glTF
- FBX
- OBJ/MTL
- Khronos COLLADA
- Pixar USD

- Alembic Material Description Format
- Web3d standards: VRML, X3D, and HAnim
- A-Frame
- OWL time,
- Geodetic datums like WGS84 and GeoPose
- IPFS distributed storage
- WebDAV



0 replies



**TrevorFSmith** on Apr 19, 2021 Author



Hey, @dmitrizagidulin. @robertlong suggested that you might be a person with a good set of links to specifications and standards for distributed identity. Would you be willing to add them here so that the OMI effort has good referenes?





0 replies



**humbletim** on Apr 21, 2021 (Maintainer)

(note: bringing these over from the XR3ngine Response - Proposed OMI Interfaces Discussion)

- Decentralized Identifiers (DIDs)
- Web Bundles (.wbn)
- ActivityPub (decentralized social networking protocol)
  - ActivityStream (vocabulary used by ActivityPub)
    - JSON-LD (JSON-based Serialization for Linked Data)
    - JSON-LD-API (algorithms for programmatic transformations of JSON-LD)
- Credential Handler API (CHAPI)





0 replies



**humbletim** on Apr 24, 2021 (Maintainer)

edited -

(intrduced by Vytek in discord #omi-general)

- - MMOX (2009 IETF draft)
    - Federated/portable identity
    - Distributed Authorization
    - Service Discovery
    - Presence Protocols
    - Licensing/permissions/DRM
    - o data formats (e.g. LLSD)
    - world simulation protocols
  - MMOX Use Cases





2 replies



Vytek on Apr 24, 2021

http://faculty.nps.edu/brutzman/vrtp/ (virtual reality transfer protocol)



Vytek on Apr 24, 2021

https://www.web3d.org/x3d/what-x3d/ (X3D) https://tecfa.unige.ch/guides/vrml/vrml97/spec/ (VRML)



**robertlong** on Apr 26, 2021 (Maintainer)

A list I've had going for a bit:

- Main Topics
  - Authentication
    - Prior Work:
      - OAuth 2.0
        - https://tools.ietf.org/html/rfc6749
      - OpenID Connect
        - https://openid.net/specs/openid-connect-core-1\_0.html
      - Web Authentication
        - https://www.w3.org/TR/webauthn/
      - Decentralized Identifiers (DID)
        - https://arxiv.org/pdf/2006.04754.pdf
        - https://github.com/decentralized-identity/did-jwt
        - https://github.com/WebOfTrustInfo/rwot6-santabarbara/blob/master/finaldocuments/did-auth.pdf
  - Identity
    - Prior Work:
      - OpenID Connect
        - https://openid.net/specs/openid-connect-core-1\_0.html#Claims
      - ActivityPub
        - https://www.w3.org/TR/activitypub/#actor-objects

- Activity Streams
  - https://www.w3.org/TR/activitystreams-core/#actors
  - https://www.w3.org/TR/activitystreams-vocabulary/#actor-types
- Decentralized Identifiers (DID)
  - https://www.w3.org/TR/did-core/
  - https://www.w3.org/TR/did-use-cases/#messaging
  - https://www.w3.org/TR/did-spec-registries/
  - https://github.com/decentralized-identity/universal-resolver
  - https://github.com/decentralized-identity/ethr-did-resolver
  - https://github.com/decentralized-identity/web-did-resolver
- Self-Sovereign Identity

https://github.com/WebOfTrustInfo/rwot6-santabarbara/blob/master/final-documents/a-roadmap-for-ssi.pdf

- WebID
  - https://dvcs.w3.org/hg/WebID/raw-file/tip/spec/identity-respec.html
- WebFinger
  - https://tools.ietf.org/html/rfc7033
  - https://diaspora.github.io/diaspora\_federation/discovery/webfinger.html
- hCard
  - http://microformats.org/wiki/hcard
  - https://diaspora.github.io/diaspora\_federation/discovery/hcard.html
- Avatars
  - Prior Work:
    - VRM
      - https://vrm.dev/en/vrm/
      - https://github.com/vrm-c/vrm-specification/tree/master/specification/VRMC\_vrm-1.0\_draft
- Social Graph
  - Prior Work:
    - ActivityPub
      - https://www.w3.org/TR/activitypub/#followers
      - https://www.w3.org/TR/activitypub/#following
    - Activity Streams
      - https://www.w3.org/TR/activitystreams-vocabulary/#connections
    - Secure Scuttlebutt
      - https://scuttlebot.io/more/protocols/secure-scuttlebutt.html
    - Diaspora
      - https://diaspora.github.io/diaspora\_federation/
- Messaging / Notifications
  - Prior Work:
    - Matrix
      - https://matrix.org/docs/spec/
      - https://matrix.org/docs/spec/client\_server/r0.6.1
      - https://matrix.org/docs/spec/server\_server/r0.1.4
      - https://matrix.org/docs/spec/identity\_service/r0.3.0

- https://matrix.org/docs/spec/push\_gateway/r0.1.1
- Push API
  - https://developer.mozilla.org/en-US/docs/Web/API/Push API
- Notifications API
  - https://developer.mozilla.org/en-US/docs/Web/API/Notifications API
- Inventory
- Storage
  - IPFS
    - https://docs.ipfs.io/
  - Dat
    - https://www.datprotocol.com/
    - https://docs.dat.foundation/docs/intro
  - Solid
    - https://solidproject.org/about
    - https://solidproject.org/TR/protocol
- Ownership Verification
  - Prior Work:
    - Verifiable Credentials
      - https://www.w3.org/TR/vc-data-model/
      - https://www.w3.org/TR/vc-use-cases/
    - NFTs
- Implementation
  - o API Format
    - ISON-LD
      - https://www.w3.org/TR/json-ld11/
      - https://www.w3.org/TR/json-ld11-api/
    - CBOR-LD
      - https://digitalbazaar.github.io/cbor-ld-spec/
      - https://github.com/digitalbazaar/cborld
  - o 3D Content
    - glTF
      - https://github.com/KhronosGroup/glTF/blob/master/specification/2.0/README.md
    - VRM
      - https://vrm.dev/en/vrm/
      - https://github.com/vrm-c/vrm-specification/tree/master/specification/VRMC\_vrm-1.0\_draft
    - USD
      - https://graphics.pixar.com/usd/docs/index.html

**1** 

0 replies



mrmetaverse on May 6, 2021 (Maintainer)

Jin shared this: https://opensea.io/blog/guides/non-fungible-tokens/#ERC721

Important conversation:

https://discord.com/channels/770382203782692945/830454514682167356/839921790025334844



0 replies



dmitrizagidulin on May 6, 2021

Collaborator

Argh, how did I miss the notification for this:)

@robertlong that is a fantastic starting list! I will add to this shortly.





0 replies

## Category



General

Labels

None yet

## 6 participants











