

WHITEPAPER

****Sovereign Creative Data Architecture (SCDA):**

Personal Virtual Homes as Platforms for Creative Ownership, Provenance, and Peer Data Economies**

Author:

Dustin Braun
Independent Researcher, Signal & Noise Lab
Castle Rock, CO, USA

Version: 1.0

Date: 2025

Abstract

Creative work in the 21st century is increasingly produced, distributed, and monetized through centralized platforms that extract the highest-value component of creative labor: the metadata underlying the process. Drafts, rehearsals, performance telemetry, audience responses, and narrative context are subsumed into platform-driven recommendation systems rather than controlled by the creators themselves.

This whitepaper introduces Sovereign Creative Data Architecture (SCDA), a new interdisciplinary framework for enabling individuals to store, verify, permission, monetize, and exchange layered creative data from within personal virtual homes. These homes function as identity anchors, data vaults, creative studios, distribution environments, and peer-to-peer marketplaces.

The work integrates decentralized identity (DID), personal data stores (Solid pods), human-centric data governance (MyData), secure content provenance (C2PA), and IndieWeb principles into a unified, creator-first architecture. This paper outlines the conceptual foundations, defines a data-layer taxonomy, proposes a permission-scoped room model, and articulates a future economy in which individuals—not platforms—own and trade their creative metadata.

SCDA is positioned as an emerging research discipline, with implications across media studies, computational creativity, digital anthropology, economics, and human-centered data governance.

1. Introduction

Digital creative production has shifted dramatically over the past decade. Creators now publish work across streaming platforms, social media sites, video hubs, and AI-influenced environments—but the infrastructure underlying these systems is designed for platform sovereignty, not creator sovereignty.

Creators control the output, but platforms control:

- engagement data
- behavioral traces
- metadata streams
- algorithmic insights
- provenance histories
- derivative learning systems

This asymmetry represents one of the largest unaddressed tensions in contemporary digital culture.

Simultaneously, a parallel movement has emerged across technical and policy communities advocating for human-centric data ownership, self-sovereign identity, content authenticity, and silo-resistant personal websites.

However, these domains remain unlinked.

No comprehensive architectural model exists for creative individuals who wish to:

1. Own all layers of their creative data
2. Use a personal domain as their identity and distribution hub
3. Selectively reveal metadata layers
4. Sell or trade data under controlled licenses
5. Ensure cryptographic provenance of their creative artifacts
6. Participate in peer economies without platform dependence

The proposed framework—Sovereign Creative Data Architecture (SCDA)—fills this gap.

2. Conceptual Foundations

SCDA emerges at the intersection of five maturing but siloed fields.

2.1 Decentralized Identity (DID)

DIDs provide user-controlled identifiers, removing dependency on platform-issued identity. They enable:

- cryptographically verifiable identity
- privacy-preserving credentials
- creator-owned namespace

(Aligned with W3C DID standards.)

2.2 Personal Data Stores (Solid Pods)

Proposed by Tim Berners-Lee, Solid pods empower individuals to store data in containers that grant selective, revocable access to third parties.

This concept provides the backbone for the “private rooms” of the virtual home.

2.3 Human-Centric Data Governance (MyData)

MyData frameworks emphasize:

- transparency
- permissioned data flows

- personal agency
- data portability
- minimal data extraction

This aligns with the ethical layer of SCDA.

2.4 Content Provenance (C2PA)

As generative AI proliferates, the authenticity and lineage of creative artifacts become critical. C2PA offers:

- tamper-evident metadata
- device-level signing
- edit history representation
- verification layers

This ensures creative artifacts and metadata remain trusted.

2.5 IndieWeb & Personal Web Movement

IndieWeb philosophies promote:

- owning one's domain
- publishing first on personal websites
- avoiding platform lock-in
- controlling the social graph via one's own identity

These principles form the spatial metaphor that SCDA builds upon.

3. The Sovereign Creative Data Home

The central premise of SCDA is that creators maintain a personal virtual home that acts as both:

- A user interface for public audiences
- A data architecture for private and semi-private creative processes

This home contains three types of rooms:

3.1 Public Rooms

Spaces intentionally open to the world.

- Living Room: creator's voice
- Studio: ongoing projects
- Gallery: polished work
- Library: long-form thinking
- Office: professional communication

These rooms correspond to different publicly accessible datasets.

3.2 Semi-Private Rooms

Visible but locked spaces signaling boundaries.

Examples:

- Draft Room
- In-Progress Room
- Behind-the-Scenes Hallway

These rooms reveal existence but not content, creating controlled intrigue.

3.3 Private Rooms

Completely invisible zones housing:

- rehearsal logs
- creative notebooks
- metadata archives
- personal telemetry

Built on Solid-like private pods, these rooms anchor sovereign storage.

4. Creative Data Layer Taxonomy

SCDA defines three primary layers of creative data.

4.1 Layer 1 — Creative Artifact

The final product:

- video
- audio
- writing
- performance

This is the narrowest layer of creative value.

4.2 Layer 2 — Process Layer

Includes:

- drafts
- notes
- rehearsal takes
- reflection logs
- alternate versions

This layer is intimate, historically invaluable, and rarely preserved.

4.3 Layer 3 — Performance & Metadata Layer

The richest layer, includes:

- laugh heatmaps
- timing telemetry
- sentiment analysis
- crowd response profiles
- behavioral traces
- structural analytics

These datasets have future value for:

- ML models
- academic research
- creative coaching
- audience analytics
- archiving institutions

SCDA allows creators to package, license, and sell these layers under controlled terms.

5. Architecture & Standards Integration

SCDA integrates multiple standards:

Identity Layer: Decentralized Identifiers (DID)

Provides unique, user-controlled identity anchors.

Ownership Layer: Solid Pods

Stores data with granular access rules.

Governance Layer: MyData Principles

Defines permission, consent, and transparency frameworks.

Provenance Layer: C2PA

Authenticates the lineage of artifacts and metadata.

Interface Layer: IndieWeb Design

The personal website becomes the “digital home.”

Together, these enable a creator to:

- cryptographically sign work
- store and organize metadata
- reveal only chosen layers
- license access with revocation capability
- interact in P2P creative markets

6. Creative Data Commerce Model

SCDA supports novel economies.

Creators may offer:

6.1 Commercial SKUs

- SHOW-VID-1 — final special

- SHOW-META-1 — performance heatmaps
- SHOW-MAKING-1 — annotated drafts
- SHOW-RAW-1 — unedited rehearsal materials

6.2 Licensing Types

- Academic Research License
- ML Training License
- Peer Creator License
- Non-Commercial Study License
- Time-Limited Preview Access

6.3 Transactions

Data access becomes:

- revocable
- auditable
- cryptographically secured
- permission-scoped

This transforms personal creative output into a legitimate asset class.

7. Use Cases

7.1 Stand-Up Comedy Special

Creator records a special and releases not only the artifact but:

- timing telemetry
- audience reaction curves
- alternate takes
- process logs
- creative annotations

Institutions may purchase specific layers for research or training.

7.2 Writer's Draft Ecosystem

An author licenses their drafting process to:

- writing students
- AI research labs
- literary archives

7.3 Musician Metadata Exchange

Musicians trade raw stems, rehearsal telemetry, or compositional sketches.

8. Ethical Considerations

SCDA requires:

- transparency about data collection

- revocable licenses
- user-informed consent
- redaction of sensitive information
- avoidance of extraction
- anti-surveillance design

MyData principles serve as the ethical backbone of this discipline.

9. Future Research Directions

- AI architectures for creative metadata analysis
 - Standardized formats for creative telemetry
 - Multi-modal provenance standards
 - Creator-to-creator licensing ecosystems
 - Institutional adoption models
 - Integration with VR/virtual home environments
 - Creative data interoperability across domains
-

10. Conclusion

Sovereign Creative Data Architecture (SCDA) reframes the internet's relationship to creativity. Instead of platforms owning the intellectual, emotional, and performative data underlying human expression, individuals can now build personal virtual homes where creativity is anchored, stored, authenticated, licensed, and exchanged on their own terms.

This whitepaper establishes SCDA as a formal discipline combining decentralized identity, content provenance, personal data sovereignty, and creative process economics. It offers a path toward a future in which creators—not platforms—govern the value generated from their own lives and labor.

References / Standards Cited

(Citations correspond to your earlier verified search results.)

- W3C Decentralized Identifiers (DID) specification.
- W3C Verifiable Credentials Data Model.
- Tim Berners-Lee, Solid Project.
- MyData Declaration & Principles.
- MyData Operators Framework.
- Jaron Lanier & Glen Weyl, Data-as-Labor theory.
- C2PA Standard for secure content provenance.
- Sony Content Credentials implementation.
- C2PA governance documentation.
- IndieWeb principles and building blocks.