

WEB 5.0

DECENTRALIZED SEMANTIC WEB

A vision for the next generation of the Web — decentralized, semantically structured and user-centric.

Data belongs to you. Identity is under your control.

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A vision for the next generation of the Web – decentralized, semantically structured and user-centric.

**DATA BELONGS TO YOU.
IDENTITY IS UNDER YOUR CONTROL.**

IDENTITY
YOU CONTROL

DATA
YOU OWN

MEANING
IS STRUCTURED

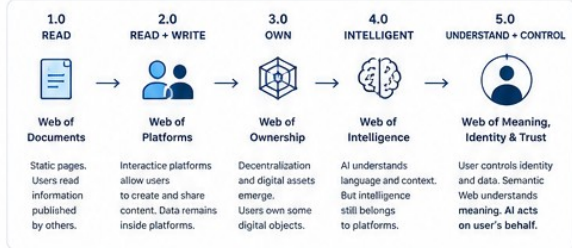
TRUST
IS VERIFIABLE

AI
ACTS FOR YOU

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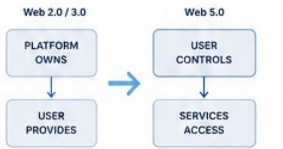
02 FROM WEB 1.0 TO WEB 5.0

The Web evolves by giving more power and control to the user.



**WEB 5.0 IS NOT JUST AN UPGRADE.
IT IS A PARADIGM SHIFT.**

From platform-centric ecosystems to human-centric digital environments.



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03 WHAT IS WEB 5.0?

WEB 5.0 is a decentralized semantic digital environment where the user is able to control:



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04 CORE LAYERS OF WEB 5.0

A modular architecture for a human-centric Web.

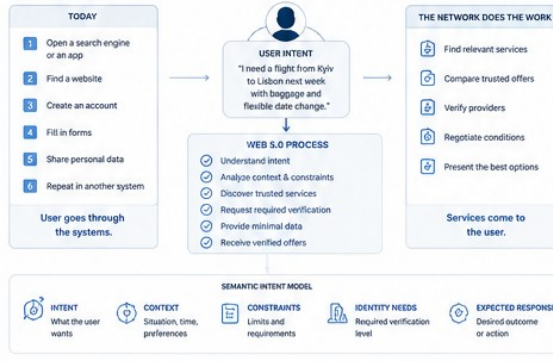


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05 FROM SEARCH TO INTENT

In Web 5.0 the user expresses intent – the network finds the right services.

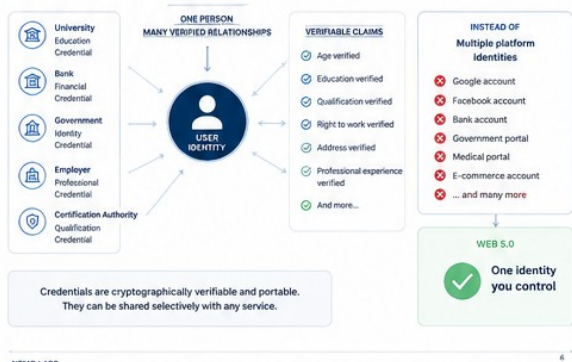


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06 SELF-SOVEREIGN IDENTITY

Identity belongs to the user, not to platforms.



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07 VISION: THE HUMAN-CENTRIC INTERNET

Web 5.0 creates a digital environment where humans, organizations and intelligent systems can interact based on meaning, trust and respect for personal sovereignty.



Web 5.0 is not a product. It is an open architecture, a set of principles and building blocks for a decentralized, semantic, trustworthy and human-centric digital world.

“ THE INTERNET CONNECTED COMPUTERS.
THE WEB CONNECTED INFORMATION.
WEB 5.0 CONNECTS IDENTITY,
KNOWLEDGE AND MEANING –
WITHOUT TAKING OWNERSHIP
AWAY FROM THE HUMAN. ”

BUILDING THE NEXT GENERATION OF THE WEB.
TOGETHER.

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v1.0

01. THE PROBLEM: TODAY'S WEB IS BUILT AROUND PLATFORMS, NOT PEOPLE

Today, users create enormous volumes of digital information, yet they have little control over the environment in which that information exists. Profiles live inside social networks, documents inside cloud services, activity histories inside platforms, contacts inside applications, and digital reputation inside closed systems.

Each platform creates its own version of the person. A bank knows one fragment, a social network another, a government service a third, and a healthcare system a fourth. These fragments do not form one coherent digital identity controlled by the user.

THE MODERN WEB GAVE PEOPLE ACCESS TO INFORMATION. IT DID NOT GIVE THEM FULL CONTROL OVER THEIR DIGITAL LIVES.

WEB 5.0 changes the center of the architecture. The human becomes the center of their own digital ecosystem, while platforms become services that receive limited, purpose-specific access.

02. FROM WEB 1.0 TO WEB 5.0

GENERATION	CORE IDEA	MODEL
WEB 1.0 — READ	Users primarily consume published information.	Web of Documents
WEB 2.0 — READ + WRITE	Users create content; data remains concentrated inside platforms.	Web of Platforms
WEB 3.0 — OWN	Decentralization and digital ownership emerge.	Web of Ownership
WEB 4.0 — INTELLIGENT	AI understands language and context, but intelligence largely belongs to platforms.	Web of Intelligence
WEB 5.0 — UNDERSTAND + CONTROL	Semantics, identity, AI, decentralization and user control converge.	Web of Meaning, Identity and Trust

WEB 5.0 IS NOT JUST AN UPGRADE. IT IS A PARADIGM SHIFT.

03. WHAT IS WEB 5.0?

WEB 5.0 is a decentralized semantic digital environment in which the user can control:

- Identity — who I am.
- Data — which data belongs to me.
- Access — who may use it and under what conditions.
- Context — how data may be interpreted.
- Trust — which actors and sources can be trusted.
- Meaning — how information is connected.

TODAY: USER → PLATFORM → DATA

WEB 5.0: USER → IDENTITY → PERSONAL DATA SPACE → SEMANTIC LAYER → SERVICES / AI / ORGANIZATIONS

The platform stops being the center of the user's digital world. It becomes a service to which the user grants limited access.

04. PERSONAL DATA SPACE

The Personal Data Space is not merely cloud storage. It is a managed digital environment controlled by the user and capable of holding identity, credentials, documents, professional information, preferences, permissions, digital assets, verified facts, relationships, personal Knowledge Units and trusted sources.

Example: age verification

A service requests confirmation that the user is over 18. WEB 5.0 can return VERIFIED: YES without disclosing the user's name, date of birth, document number, address or passport copy.

MINIMUM DATA. MAXIMUM VERIFIABILITY.

05. SELF-SOVEREIGN IDENTITY

In today's Web, identity is often mediated by platforms. WEB 5.0 proposes a different model: identity belongs to the user. A cryptographically verifiable identity can collect credentials issued by trusted parties.

- University → Education Credential
- Bank → Financial Credential
- Government → Identity Credential
- Employer → Professional Credential
- Certification Authority → Qualification Credential

ONE PERSON → MANY VERIFIED RELATIONSHIPS — NOT DOZENS OF PLATFORM IDENTITIES.

06. SEMANTIC WEB: THE INTERNET SHOULD UNDERSTAND RELATIONSHIPS

The Internet stores an enormous amount of information, but much of it still exists as pages, documents, records and APIs. WEB 5.0 adds a Semantic Layer in which relationships are represented explicitly.

Person → works at → Organization

Organization → develops → Technology

Technology → depends on → Component

Component → produced by → Manufacturer

Manufacturer → located in → Country

For people, these relationships are intuitive. For machine systems, they must be represented explicitly. WEB 5.0 increasingly treats the Web as a graph of meaning: not billions of isolated documents, but billions of interconnected knowledge objects.

07. FROM SEARCH TO INTENT

Today the user must know where to search, which application to open, which account to create and which forms to complete. WEB 5.0 changes the interaction model: the user expresses intent.

“I need a flight from Kyiv to Lisbon next week, with checked baggage and the ability to change the date.”

SIGNAL	INTERPRETATION
INTENT	Travel by air
CONTEXT	Dates, route and user
CONSTRAINTS	Baggage and flexible date
IDENTITY REQUIREMENTS	Only the data required for purchase
TRUST REQUIREMENTS	Verified providers
SERVICES COME TO THE USER'S INTENT.	

08. TRUST LAYER

Decentralization creates a fundamental question: if there is no single center, whom should the system trust? WEB 5.0 therefore requires a Trust Layer.

- IDENTITY — Who is this?
- AUTHORITY — Is the actor authorized to make this claim?
- PROVENANCE — Where did the information originate?
- INTEGRITY — Has it been altered?
- CONTEXT — Under what conditions is the claim valid?
- TRUST — Why should it be trusted?

09. AI IN WEB 5.0

Today AI largely exists inside individual services. In WEB 5.0, AI can become part of the user's personal digital environment.

PERSONAL AI AGENT

The agent acts not as the owner of the user's data, but as the user's representative. It can understand intent, discover services, evaluate trust, request permission, provide only the minimum necessary data, compare offers, interact with other AI agents and monitor fulfillment of agreed conditions.

USER → PERSONAL AI → SEMANTIC NETWORK → SERVICE AGENTS → VERIFIED OFFERS → USER DECISION

The Internet gradually evolves from a space of websites into a space of interacting intelligent actors.

10. WEB 5.0 ARCHITECTURE

LAYER	ROLE	CORE PRINCIPLE
06 — INTELLIGENCE	AI agents act on behalf of the user.	User-aligned intelligence
05 — TRUST	Provenance, authority, integrity and verification.	Explainable trust
04 — SEMANTIC	Meaning, relationships, context and knowledge graphs.	Machine-interpretable meaning
03 — PERMISSION	Who may access what, why and for how long.	Granular, revocable consent
02 — PERSONAL DATA	User-controlled data in a Personal Data Space.	Data ownership
01 — IDENTITY	Decentralized identity under user control.	Self-sovereign identity

Above these layers operate applications, services, organizations and AI systems. The key architectural change is that the application is no longer the center of the user's digital world. The user's own digital environment is.

11. WHAT THIS LOOKS LIKE IN PRACTICE

Consider a person applying for a job. Today, the applicant repeatedly creates accounts, completes profiles, uploads identity documents, diplomas and certificates, shares contact details and authorizes storage — then repeats the same process in the next system.

In WEB 5.0, the employer requests only the necessary verified claims:

- Identity verified?
- Education verified?
- Qualification verified?
- Right to work verified?

The user approves the request. The Personal Data Space provides the required proofs. The employer receives VERIFIED without receiving unnecessary personal data.

VERIFY WITHOUT SURRENDERING DATA.

12. WEB 5.0 + DATARA GENESIS

At this point, the projects form a NEMO ecosystem rather than a collection of isolated technologies.

COMPONENT	QUESTION IT ANSWERS
WEB 5.0	Where does knowledge exist, and who controls it?
DATARA Genesis	What available information can actually be supported as knowledge?
Semantic Layer	How is knowledge connected?

Trust Layer
Identity Layer
SemanticNet

Why can a source or claim be trusted?
To whom does an action, right or claim belong?
How can meaning move between nodes of the network?

IDENTITY → DATA → KNOWLEDGE → MEANING → TRUST → INTELLIGENCE

13. POSITIONING

WEB 5.0 is not a new browser. It is not a new social network, cryptocurrency, blockchain or simply another version of Web3.

WEB 5.0 IS AN ARCHITECTURAL MODEL OF THE INTERNET IN WHICH THE HUMAN BECOMES THE CENTER OF THEIR OWN DIGITAL ENVIRONMENT.

Data can remain under the user's control. Identity can be user-controlled. Permissions can be explicit and revocable. Information can carry machine-interpretable meaning. Trust can be verified. AI can act on behalf of the user rather than only on behalf of the platform owner.

WEB 5.0

DECENTRALIZED SEMANTIC WEB

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IDENTITY IS UNDER YOUR CONTROL.

KNOWLEDGE HAS STRUCTURE.

TRUST CAN BE VERIFIED.

AI ACTS ON YOUR BEHALF.

**THE INTERNET CONNECTED COMPUTERS.
THE WEB CONNECTED INFORMATION.**

**WEB 5.0 CONNECTS IDENTITY, KNOWLEDGE AND MEANING —
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BUILDING THE NEXT GENERATION OF THE WEB. TOGETHER.**