



## Wood Wide Web - Litepaper v1

### Introduction

The \$WWW is the first-ever digital vegetation powered by on-chain activity, creating a dynamic, real-time 3D simulation of an oak tree's growth, mirroring its real-world biological processes.

\$WWW token represents a groundbreaking convergence of ecological awareness and blockchain decentralization through immersive 3D artistry. Hosted at [wwwweb.io](http://wwwweb.io), \$WWW introduces the Wood Wide Web, a decentralized ecosystem that uses real oak/tree growth models to create a living, evolving representation of environmental and transactional synergy.

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### Vision

Our vision is to create a digital ecosystem that mirrors the intricate connections of nature, where every component—from towering trees to hidden networks underground—collaborates to sustain growth. By leveraging blockchain's decentralized and autonomous capabilities, \$WWW establishes a new paradigm: interactive, autonomous digital lifeforms powered by human activity.

While \$WWW focuses on above-ground growth, visualizing trees thriving through user transactions, the coming project \$ROOT will extend this vision underground. Inspired by the fungi neural network, \$ROOT will simulate the hidden networks that help trees communicate and exchange resources. Together, \$WWW and \$ROOT will form a complete digital biome, showcasing the power of interconnected systems. *\$ROOT and its governance token still in the experimental phase. Only trust our official channels regarding its launch.*

## Key Features

### 1. Dynamic Oak Tree Growth:

- Every transaction (buy/sell) triggers the oak tree's growth in a real-time 3D simulation.
- The growth mirrors the biological processes of an oak tree, including branching, leafing, and seasonal changes.

### 2. Powered by the Solana Blockchain:

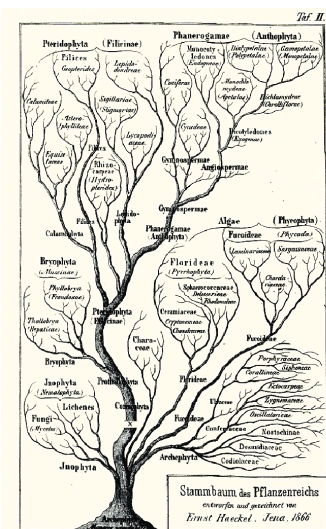
- Leveraging Solana's speed and efficiency, \$WWW ensures a seamless and cost-effective user experience.
- Transactions are processed in seconds, ensuring immediate updates to the tree.

### 3. Scientific Growth Modeling:

- The 3D rendering is based on real oak growth data, incorporating:
  - Branching angles (30°-60°) and growth
  - Different levels for branch growth and quantity
  - Leaf growth
  - Trunk radius growth
  - Root expansion proportional to canopy width.

### 4. First Digital Vegetation:

- \$WWW pioneers digital vegetation as an asset, turning blockchain activity into a visual, interactive experience.
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## **How It Works**

### 1. Blockchain Transactions Drive Growth

- Buys/Sells: Increase branch levels, sizes, trunk, bark and leaf growth.

### 2. Real-Time 3D Rendering

- Built on the EZ-Tree procedural tree generator and Three.js, the simulation updates instantly with every blockchain interaction.
- Participants can view the tree's transformation in real-time on [wwwweb.io](http://wwwweb.io).

### 3. Scientific Accuracy



- Growth patterns replicate actual oak biology, including:
  - Phototropism: Branches grow toward light sources.
  - Average leaf-to-branch ratio
  - Root Spread: Expands proportionally to canopy width.

### 4. Ownership and Contribution

- Each transaction is a contribution to the tree's evolution, making every participant a part of its growth story.

## **Technology Stack**

1. Blockchain:
    - Solana: High-speed, low-cost transactions power seamless real-time updates.
  2. Rendering:
    - Procedural tree generator for realistic vegetation modeling.
    - Three.js: Browser-based 3D rendering.
  3. Back-End:
    - Node.js: For handling transaction events and triggering growth logic.
    - WebSocket API: For real-time updates from blockchain events.
  4. Front-End:
    - React.js: Interactive user interface for visualizing the tree.
    - WebGL Integration: Enables smooth rendering of the 3D tree on all devices.
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## **Conclusion**

\$WWW is more than a token—it's a movement to redefine the intersection of nature and technology. By visualizing blockchain activity as a living, evolving tree, \$WWW inspires ecological awareness, fosters community engagement, and showcases the limitless potential of blockchain-powered innovation.

Join the Wood Wide Web, where every transaction nurtures digital vegetation and bridges the gap between economy and ecology.

Visit [wwweb.io](https://www.wwweb.io) to witness the on-chain revolution today.