PATH ai

Our history is a story of creators.

PATH AI
The Storyline.

Our history is a story of creators.

Of tools crafted to shape the world
Of inventions made to rise above our condition
Of ideas developed to give meaning to our lives
And of art created that allows us to live beyond our
lifetimes.

But the creators that history remembers are few.
Some PATH AI of genius, some privileged with resources.

Until now.
We stand before the greatest tool ever created,
The one that will democratize creation,
Giving everyone the chance to be part of inventions,
ideas and art that will shape the world

Combining the power of Blockchain with Artificial
Intelligence, PATH AI allows anyone anywhere to
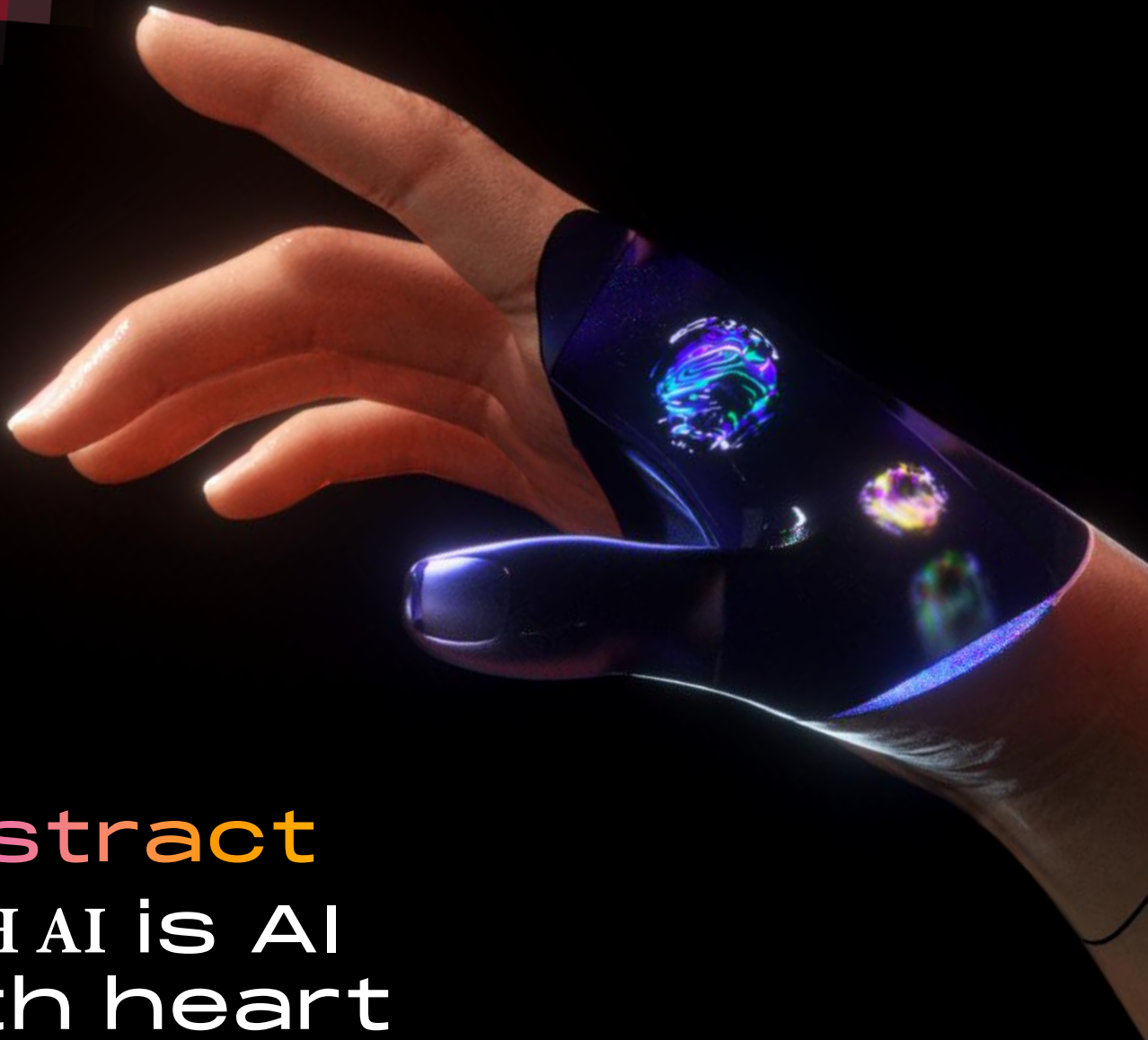create and scale their potential into the infinite.

PATH is A.I. with a heart.
A tool that cannot turn against its creators because it
has what every creation before lacked.

Proof of PATH AI real heartbeats on the blockchain
keeping the A.I. in check.

Never before have we had the capability to transform
ourselves into digital beings or to combine them with
the power of Artificial Intelligence and automatically
scale ourselves around the world and into the
foreseeable future.

Now we do.

With PATH AI anything is possible.

Abstract

PATH AI is AI
with heart

Introducing the first framework for ethical AI and blockchain. PATH AI is creating an all-in-one platform for AI-based creation and governance at scale, beginning an initial focus on synthetic media. Through its creative studio and token based ownership and accountability system, PATH AI is designed to ensure contributions are fairly rewarded and that every AI is kept honest over the long term.

Is a human behind every AI decision.

Summary

PATH AI is a next generation blockchain platform that brings together an ecosystem of stakeholders around the use of AI to create at scale. It combines a library of AI tools into a creative studio suite where users will be able to pick and choose as they bring their ideas to life. Individuals are empowered to create and own their digital likenesses, which may be used by themselves and others in the creation of any number of digital assets. The synthetic media, AI apps, and other digital assets utilize blockchain technology to generate Non-Fungible Tokens (NFTs) as a way of creating transparency, accountability, and long term governance.

Welcome To the Era of AI

We stand at the dawn of a new era, where more and more of the data we generate and interact with is influenced by AI in one way...or many. The advent of this technology holds great promise in terms of how it can help us save time, energy, and money, but it also poses many challenges. We see the following as the key challenges in the space that PATH AI seeks to address with its solution.

Ethical AI

Just as with the birth of virtually any other industry, AI enables us to do great things, but it also creates the potential for great harm, and thus a need to define ethical standards for its use and methods of maintaining accountability into the future. What happens when people misuse AI to do harm, or an AI application is unethical? As of right now, there is little to no accountability for AIs presence in the market and its impact on the world.

PATH AI recognizes meeting this challenge is an absolute imperative in the application of AIs in every industry, which is why we are creating a platform where we people can access and enjoy the benefits of AI safe in the knowledge this use is ethical by design. In other words, PATH AI provides a way of keeping AIs honest. We ensure that as AIs are utilized to create content and all kinds of digital assets, there is a clear record of who contributed what and who bears responsibility for them over the long term.

Market Fragmentation

AI Researchers & Developers love creating new technologies, but the way things stand they either have to sell them off to someone else or take them to market themselves; both of which are distractions from doing what they love: building AIs.

PATH AI offers AI innovators an opportunity to earn livelihoods by bringing their solutions onto a global stage where others can enjoy their value of their technologies over the long term.

Market Accessibility

Throughout history we have used tools to save each other time and energy, and to enable ourselves to achieve things on scales that were impossible before. Today, AI is poised to help us manage data, automate processes, and help us create media on unprecedented scales, but it remains difficult to use and/or unaffordable for the vast majority of users. PATH AI offers an easy to use creative studio were anyone can access AIs and use them for any number of applications, with synthetic media as just the first of many more to come.

PATH ai
Technology

PATH AI is envisioned as a platform that can be adapted and tailored to work with any service or product vertical in the market. An all in one technology solution for AI-as-a-Service, the PATH AI platform will combine traditional solutions with blockchain based record-keeping and governance.

The ecosystem components may be understood by organizing them according to where they fit in the process of creating digital assets in the PATH AI ecosystem.

In this section we introduce the system components alongside system stakeholders.

Technology

AI Library

AI Developers have a new way to deploy and train their algorithms in a ready-to-sell environment where they can share their creations and collaboratively improve their models.

AI Training System

AI models may be optimized for specific data inputs. This may happen on a self/unsupervised basis, which requires no labels, or a supervised basis which requires labels. This training can be automated (~continuous integration-style) or configured manually (data+model) resulting in a trained model taking the form of a binary file.

Digital Genome

Anyone can create their own unique Digital Genome for use with their own creations and others. This Genomes are owned by their creators, and may earn their owners compensation as they are used in the production of synthetic media assets. Requests for use will be submitted for approval by the creator or their designated agents.

Apps

Apps are a combination of AIs that generate valuable outputs on request. Each request made to an App is sent to each of its components, which in turn share any proceeds respectively. Due to technical limitations, there may be a limited number of slots available for high performing Apps on the platform.

Apps may be built based on the framework available in PATH AI Studio:
- From scratch, built to serve a specific or unique use case
- From a recipe made available in the PATH AI Studio

Users will have the ability to deploy Apps at scale in the PATH AI decentralised ecosystem and to access a host of decentralised services provided by other members of the community. In order to go live with an App and make it available more broadly in the system, users will be required to stake PATH AI tokens.

PATH ai

Individuals and App Builders access the AI Library and bring their ideas to life by utilizing any number of AI models and Genomes. Neural networks for sentiment analysis, text to voice, text to video, voice to video, language translation, data analysis, etc. will all be able to work together in any number of combinations and saved as Apps.
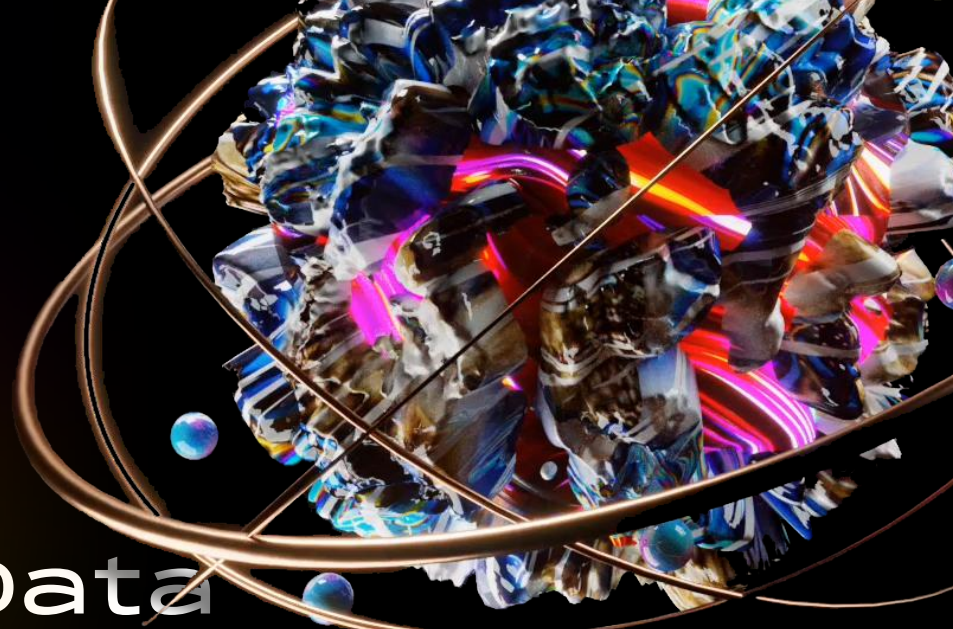
Stakeholders

Network Validators

Network Validators are the entities which secure the network and provide decentralisation. They
are responsible for validating transactions, user identity, data ownership, as well as ensuring all contributing parties to a valuable outcome are being compensated appropriately.

AI Developers

via Universities / Research Centers / Corporations
AI Developers are the entities which deploy algorithms to AI Library
so they may be used by the community based on the conditions they set.

Users / Data Providers

As a basic rule, Users own all their data. In order to make data available in the PATH AI Studio, the data and authenticity of ownership will need to be validated by third party validators. Validated data remains validated in perpetuity unless changes are made, which will require fresh validation.

App Builders

Virtually anyone may build apps in the PATH AI Studio by creating workflows and training AIs with their own data sets or others made available in the PATH AI Studio.

Validators

Validators are users which leverage their biometrics in order to prove that an AI is supervised.
Users will need to stake PATH AI (TOKEN) in order to become eligible as a Validator.

Proof of PATH AI

Proof of PATH AI is a new blockchain validation mechanism allowing PATHAI to leverage their biometric data in order to prove that any given NFT is still under close biological supervision, and is the cornerstone of our decentralised ecosystem. The PATHAI ecosystem is based on the belief that it is essential to put real PATHAI at the forefront of the AI revolution. Proof of AI gives users the ability to play a crucial role as validators in a framework designed to keep AI honest.

PATHai
A token
for every human

PATHAI.NETWORK driven AI

PATH ai

Token Economy

There are three kinds of tokens utilized to create transparency and accountability throughout the ecosystem:

PATH-AI
TOKENS

Used for governance and payments within the ecosystem
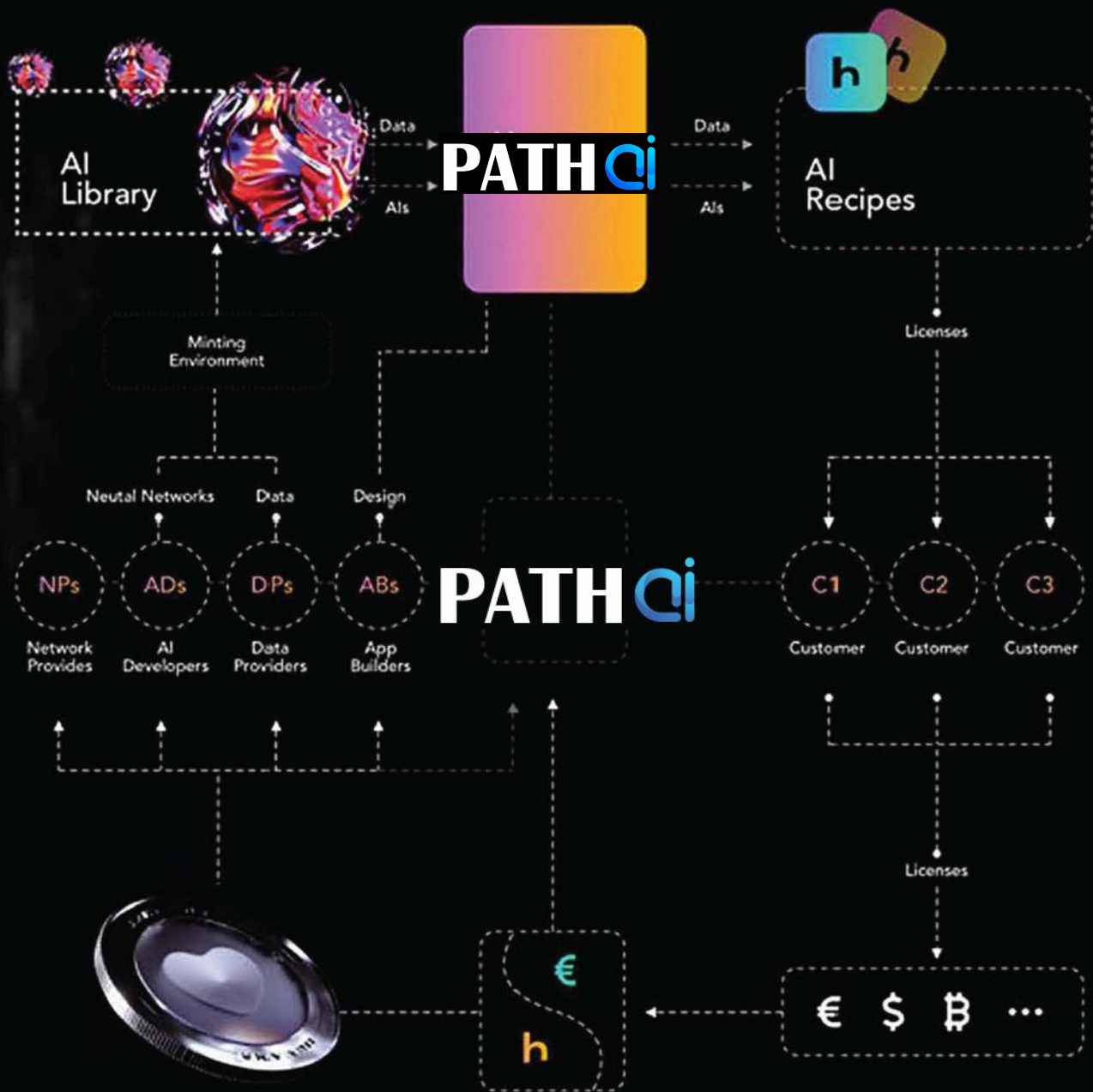
NON-FUNGIBLE
TOKENS (NFTS)

Used for ownership of Algorithms, Genomes, Data, AIs, & Apps

BEP20
TOKENS
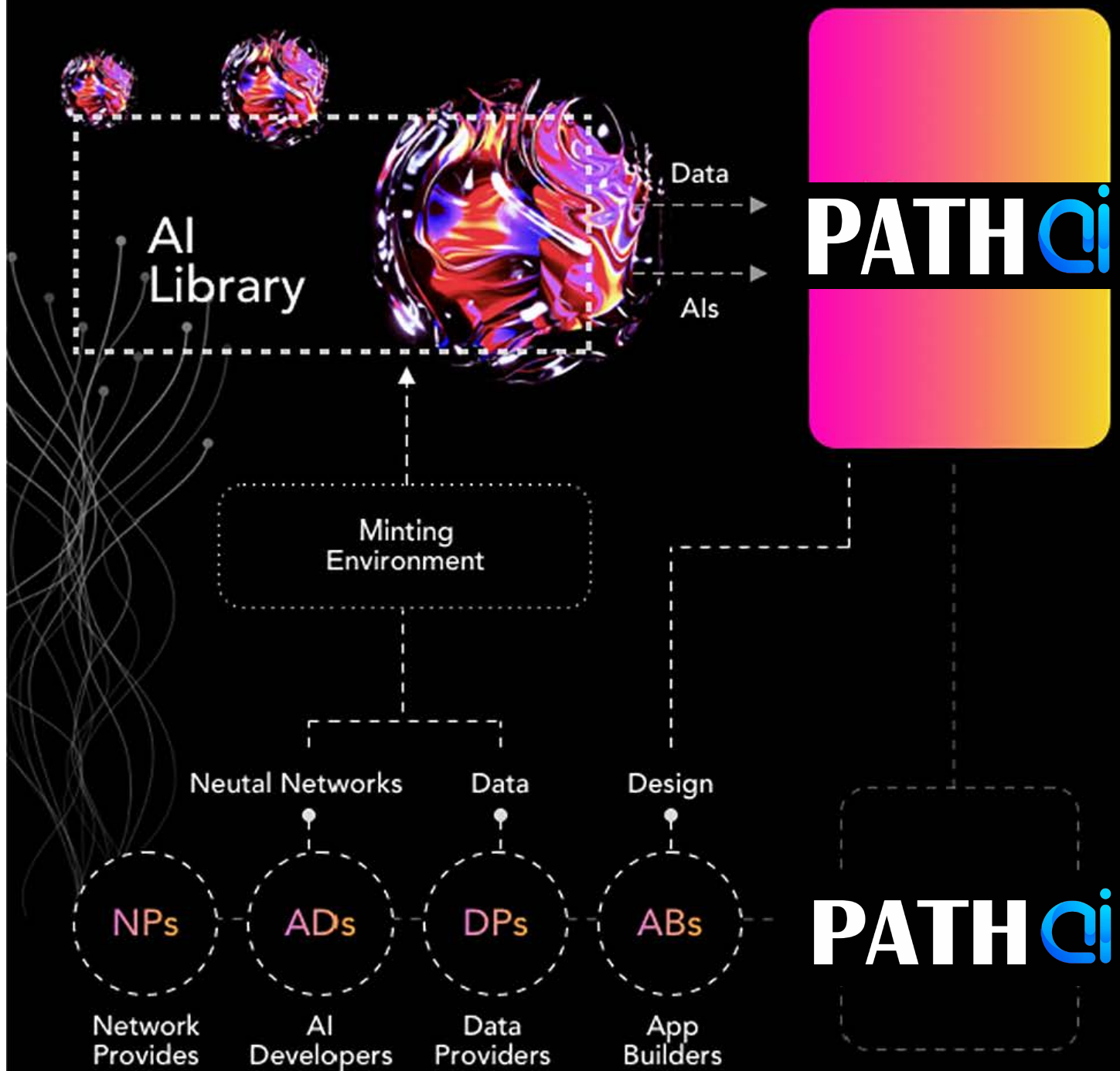
Representing rights to governance and revenues of an NFT

Value Flow

CoProduction

AI
Library

Data

AIs

PATH ai

Minting
Environment

Neutal Networks

Data

Design

NPs

ADs

DPs

ABs
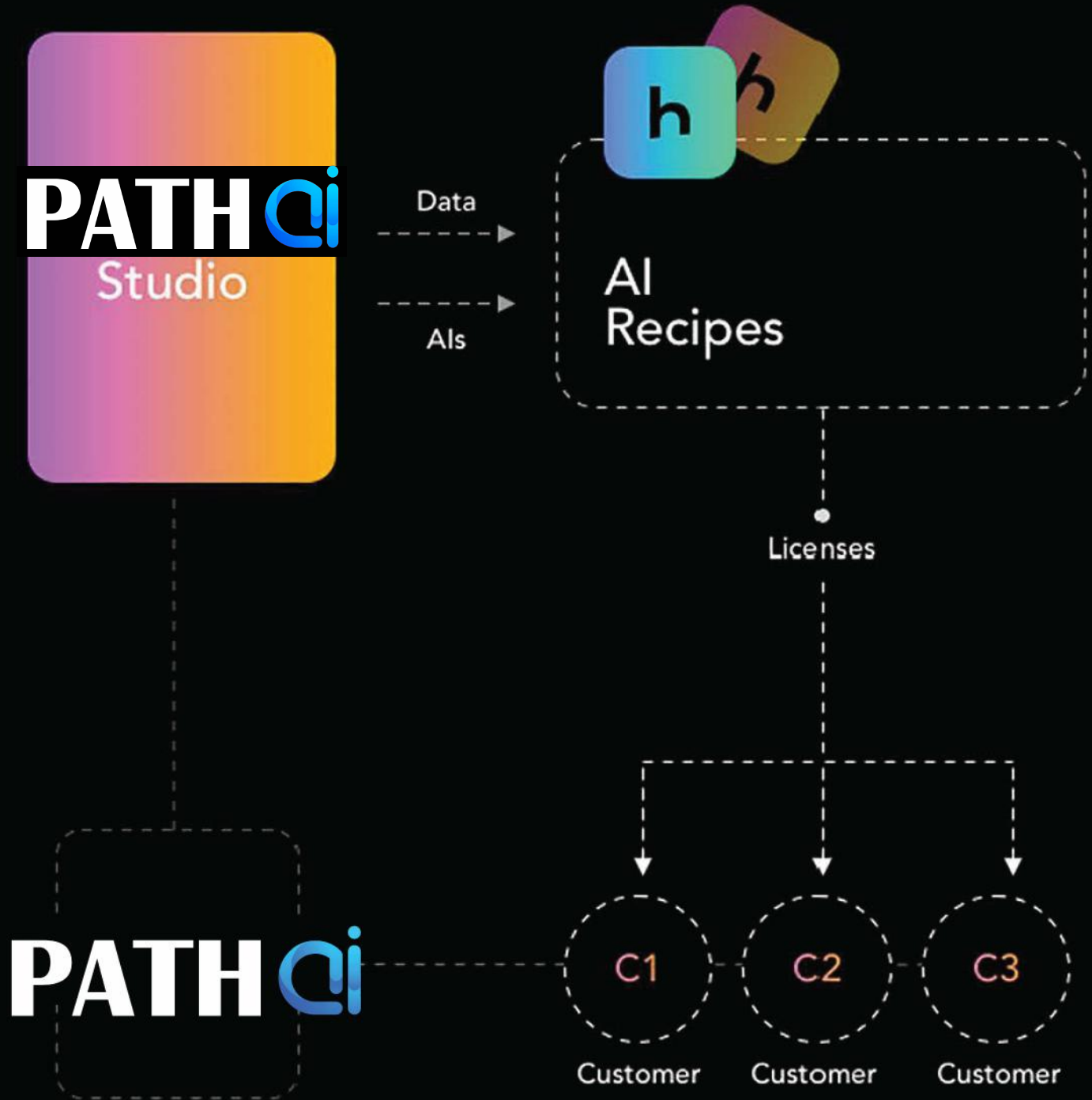
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Network
Provides

AI
Developers

Data
Providers

App
Builders

NPs: Network Providers provide nodes to support the network
ADs: AI Developers provide AIs into the library
DPs: Data Providers provide Data into the library
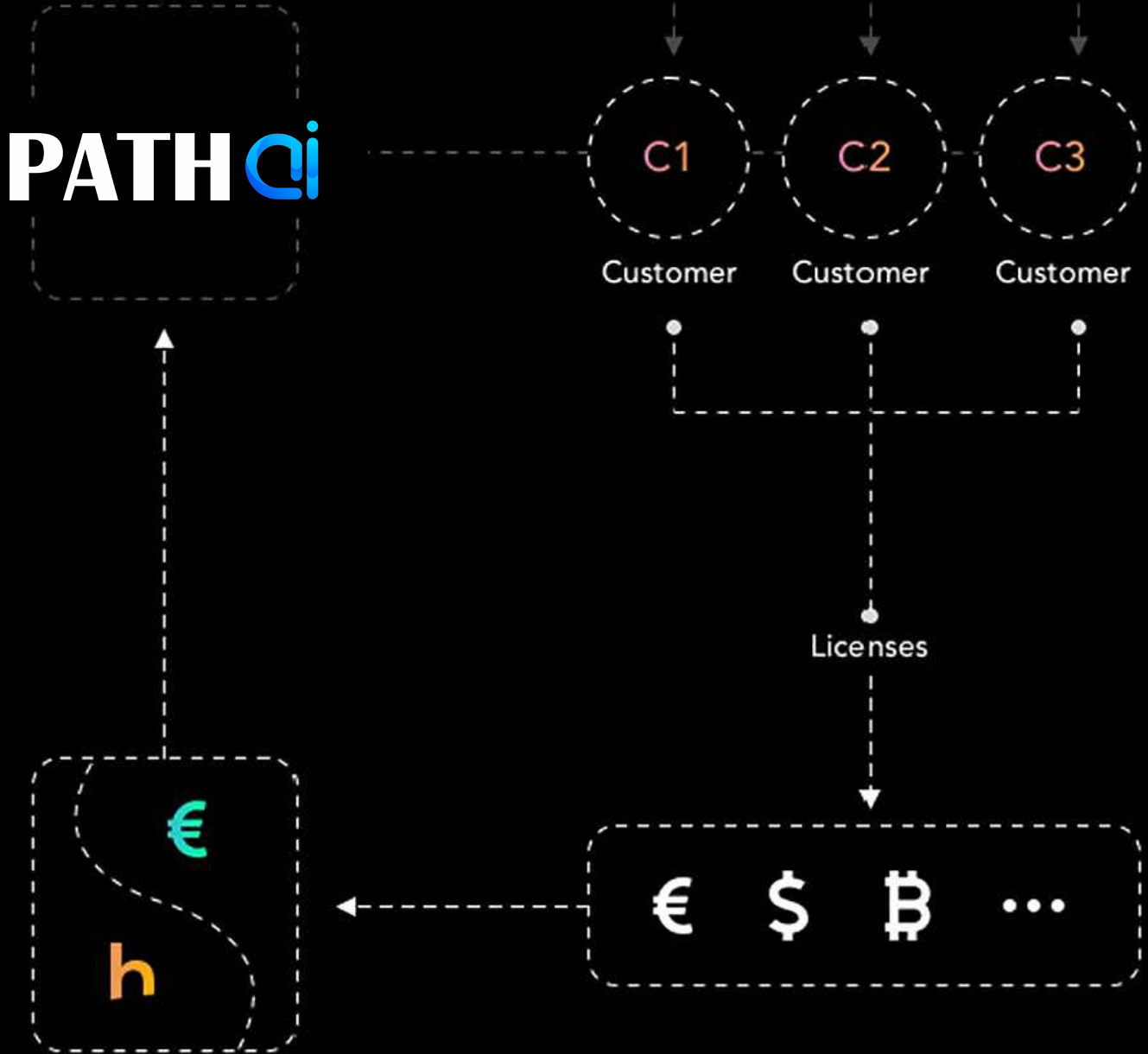ABs: App Builders design apps in the Humans Studio

AI as a Service

PATH ai
Studio

Data →

AIs →

AI Recipes

Licenses

PATH ai

C1 | C2 | C3

Customer | Customer | Customer

Customers (C1-4) purchase use licenses (could also be labelled as Access); could also allow customers to offer bounties for speciality/bespoke AIs/Apps

Customer
Payments

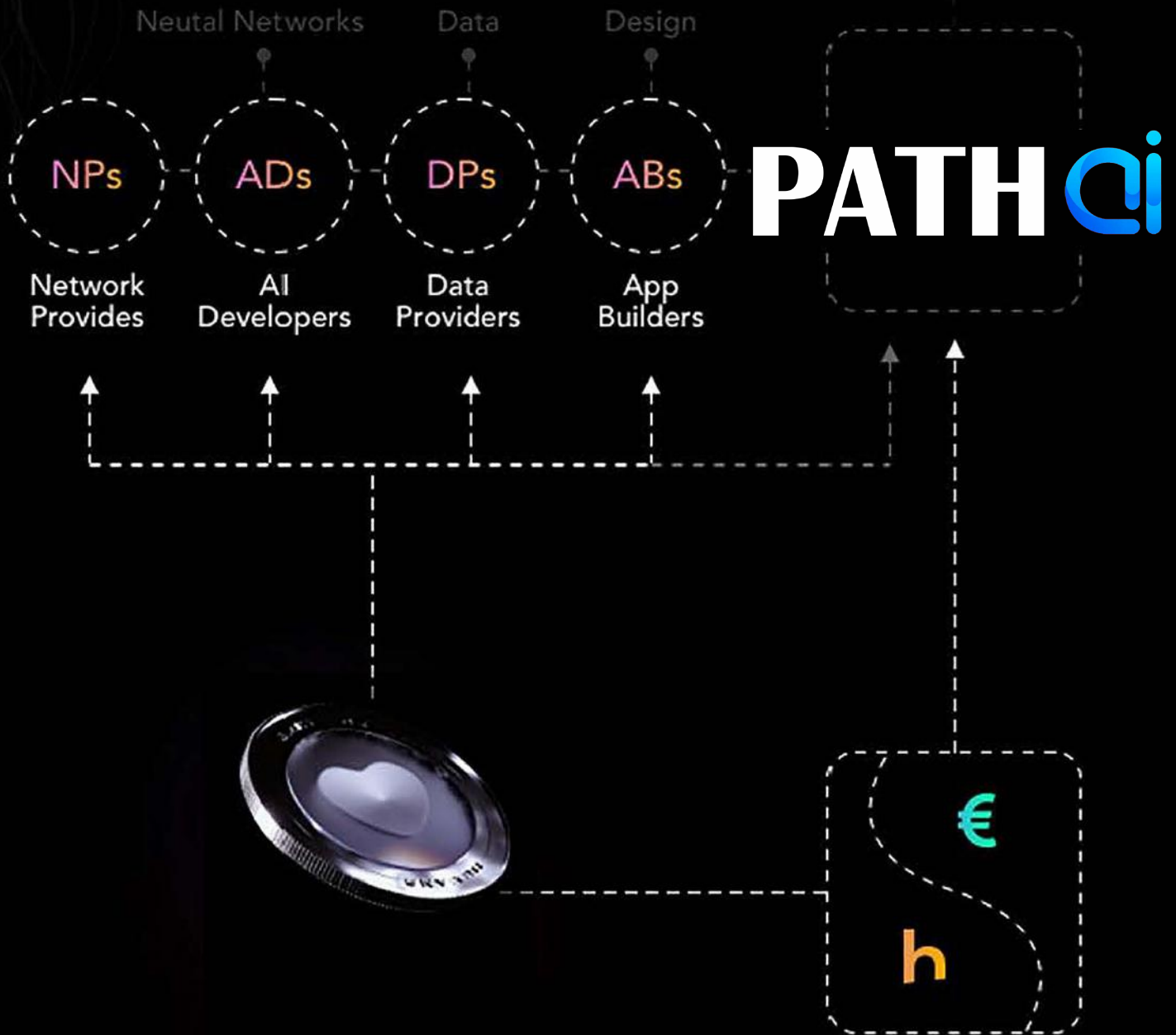PATH ai

C1
C2
C3

Customer   Customer   Customer

Licenses

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PATH ai

CUSTOMERS CAN PAY IN ANY NUMBER OF CURRENCIES
PAYMENTS ARE AUTOMATICALLY CONVERTED TO PATH AI TOKENS

Shared Earnings

Minting

Neutal Networks   Data   Design

NPs   ADs   DPs   ABs   PATH **ai**

Network
Provides

AI
Developers

Data
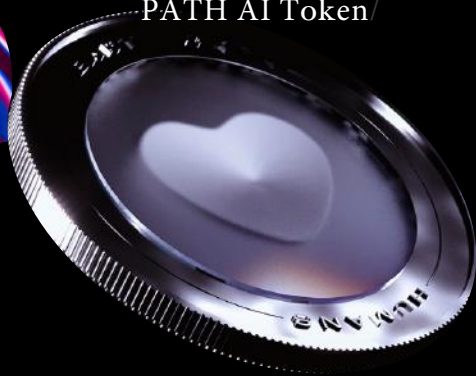Providers

App
Builders

€

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All the parties that played a role in the creation of the AI/App in question collects fees according to prior agreements determined based on the relative value of their contributions to the product.

PATH AI Collects its own fees in the process

PATH AI Token/

PATH ai
Token

As the native token of the PATH AI ecosystem, the PATH AI token empowers anybody to participate in the governance of the platform and facilitates key flows of value within it. All fees charged by the PATH AI platform will be paid in $HEART, even when payment originates in fiat or another accepted cryptocurrency.

One of the primary functions of PATH AI (TOKEN) is to facilitate staking. Staking PATH AI is required to perform key functions within the PATH AI ecosystem, including:

MINTING NFTS

CREATING APPS

PAIRING WITH $HEART FOR PRICE DISCOVERY & LIQUIDITY

ADDING AIS TO THE PATH AI **STUDIO**

ACCOUNT VALIDATION

Additionally, PATH AI (TOKEN) will serve as the default incentive as various stakeholders contribute key value into the ecosystem. These incentives include rewards for:

CREATING AN AI DEVELOPER ACCOUNT AND GETTING IT VALIDATED

UPLOADING TECHNOLOGY

ACCOUNT VALIDATION (KYC)

PARTICIPATING IN GOVERNANCE

PROVIDING PROOF

ERC20 Tokens Primary Asset Rights

While the NFTs represent the ownership over the digital asset itself, the ERC20 tokens represent the rights to govern the NFT and the rights to any PATH AI revenues it may generate. Importantly, these governance rights and rights to revenue may be represented by two separate ERC20 tokens, both linked to the original NFT.

Governance related tokens will be distributed across all the parties who (or whose data) contributed to the creation of an NFT.

Revenue related tokens may be distributed differently, as decided by the Governance token holders. Any revenues generated will be allocated proportionally according to the distribution of these tokens.

Automated Liquidity Pools Price Discovery

Users may create a Uniswap like liquidity pool in order to pair their ERC20 tokens with PATH AI. This requires staking an amount of PATH AI (TOKEN) against an equivalent amount of ERC20 tokens. A smart contract automatically facilitates purchases into and liquidations out of the ERC20 token and updates the exchange price in real time, allowing for price discovery between the two assets.

Non-Fungible Tokens
Primary Assets

Through NFTs we can encapsulate the ownership of digital information and maintain a persistent record of the value it produces over time. PATH AI utilizes NFTs to recognize ownership of a number of assets within its ecosystem and to ensure contributions to the delivery of valuable outcomes are properly accounted for and recognized. These assets include:

ALGORITHMS

Programs developed to perform certain AI functions, prior to training with Data

GENOMES

Personal profile and biometric data e.g. a users's voice, likeness, etc.

DATA

Virtually any kind of data set

AIS

Results of training Algorithms with Genomes or other Data

APPS

Multiple AIs combined into a value added product

Minting NFTs involves making selections regarding its governance and financial dynamics. These initial selections can only be changed by those who hold the NFT's linked governance tokens.

PATHai

Governance

PATH AI is about empowering anyone to use AI to create anything they can imagine. At the same time, it is about ensuring that those creations are made in service of the common good, and are not used to do harm or otherwise violate the principles of ethical AI. This is why PATH AI is also a governance platform.

In order to participate in the governance system of PATH AI, a user must have a validated account and stake a minimum amount of PATH AI (TOKEN) for the life of their account. Similarly, in order to participate in the governance over an NFT, the user will need to possess and stake that NFTs governance token.

The governance system will provide oversight to the technical and other functional aspects of the ecosystem, as well as to the creation and usage of AIs via the NFTs. Users may submit proposals for the improvement of the ecosystem via funding or some other idea, and/or raise concern regarding an AI, App, or other usage for ethical review.

Principles of Ethical AI

In April of 2019, the European Commission's High-Level Expert Group on AI put forward 7 key requirements that AI systems must satisfy in order to be deemed trustworthy. Our vision is to create an environment where creators can put AI to use in any industry in the comfort and knowledge that everything they create is aligned with these principles by default and by design. Below each principle is a statement of how PATH AI is committed to creating an all-in-one AI platform that is ethical by design.

1. PATH AI AGENCY AND OVERSIGHT

AI systems should empower human beings, allowing them to make informed decisions and fostering their fundamental rights. At the same time, proper oversight mechanisms need to be ensured, which can be achieved through human-in-the-loop, human-on-the-loop, and human-in-command approaches

Proof of The PATH AI system requires a proof of humanity and validates critical account data in order to ensure that there is a real person behind every AI. Product ownership, governance, and value flows will be tracked through NFTs created for each AI application / asset, with the entire ecosystem governed by PATH AI (TOKEN) governance token holders.

2. TECHNICAL ROBUSTNESS AND SAFETY

AI systems need to be resilient and secure. They need to be safe, ensuring a fall back plan in case something goes wrong, as well as being accurate, reliable and reproducible. That is the only way to ensure that unintentional harm can be minimized and prevented.

No compromises The PATH AI team is building the platform with safety and data privacy as a top priority in design and development. We will make no compromises when it comes to security.

3. PRIVACY AND DATA GOVERNANCE

Besides ensuring full respect for privacy and data protection, adequate data governance mechanisms must also be ensured, taking into account the quality and integrity of the data, and ensuring legitimised access to data.

Data Sovereignty PATH AI is being created to address this critical need head on, and will do so by designing an easy to navigate governance platform that accounts for each party's data, permissions, and usage.

4. TRANSPARENCY

The data, system and AI business models should be transparent. Traceability mechanisms can help achieve this. Moreover, AI systems and their decisions should be explained in a manner adapted to the stakeholder concerned. PATH AI need to be aware that they are interacting with an AI system, and must be informed of the system's capabilities and limitations.

Honesty PATH AI will utilize blockchain technology to maintain a system which is as transparent and accountable, and ensure that critical information is both easy to find and navigate.

5. DIVERSITY, NON—DISCRIMINATION AND FAIRNESS

Unfair bias must be avoided, as it could could have multiple negative implications, from the marginalization of vulnerable groups, to the exacerbation of prejudice and discrimination. Fostering diversity, AI systems should be accessible to all, regardless of any disability, and involve relevant stakeholders throughout their entire life circle.

Inclusiveness PATH AI will strive to ensure discrimination has no place in its ecosystem, and places a high value on making this technology accessible to everyone around the world.

6. SOCIETAL AND ENVIRONMENTAL WELL—BEING

AI systems should benefit all human beings, including future generations. It must hence be ensured that they are sustainable and environmentally friendly. Moreover, they should take into account the environment, including other living beings, and their social and societal impact should be carefully considered.

Collaboration We will constantly engage in public education and maintain discourse around AI and synthetic media to ensure the PATH AI system is operating in integrity and doing all it can to promote positive environmental and social outcomes.

7. ACCOUNTABILITY

Mechanisms should be put in place to ensure responsibility and accountability for AI systems and their outcomes. Auditability, which enables the assessment of algorithms, data and design processes plays a key role therein, especially in critical applications. Moreover, adequate and accessible redress should be ensured.

Governance PATH AI is being created to ensure that AIs are created and maintained in ways which ensure there is long term ownership and accountability. All parties and systems involved in the creation of an AI, as well as those presently responsible for its management and governance, will be recorded and overseen by the PATH AI ecosystem.

PATH ai