USPTO filing US-19/362,415

This patent application was filed on Oct. 19th, 2025 with a priority to USPTO Provisional Application No, 63/709,462 filed October 20th, 2024, all of which are incorporated herein.

I believe this application covers the bank deposit and hypothecation of any physical or digital asset (RWA), and issuing tokenized loans to represent the hypothecation. This patent also covers enabling a tokenized bank through AI as agentic commerce, or AI Agents for payments or any other bank service, including issuance and management of tokenized loans as peer-to-peer or bank issued loans. This patent also covers bank tokenized derivatives and RWA issuance. This patent also covers reinvestment of bank reserves as tokenized investments into existing businesses to produce additional yield for minting and staking services, as well as utilizing carbon accounting to produce additional yield.

In this filing, I mentioned this **"Artificial Intelligence (AI) Agent software was initially coined as a concept in 2024, and has since become the preferred software framework pattern for AI systems. This disclosure describes an AI Agent based banking system that involves input from Digital MRV systems, IoT systems, and Internet sources being fed into a RAG/LLM AI system to train the platform ongoing, and then to utilize an AI Agent architecture to map all 17 Sustainable Development Goals to an AI Agent for scoring and driving financial operations in a tokenized banking system on blockchain. This system can have an AI Agent drop into any corporate network to provide a fully autonomous banking system for services that include tokenized deposits, withdrawals, payments, transfers, personal and commercial loans, and staking services based on loan yields.**

The AI Agent banking software can utilize SDGs to analyze and guide tokenization of associated assets that include carbon, water, mineral, land, other natural resources, contracts, securities, commodities, and other assets or property of value. The AI Agents can be trained to handle specific workflows during operation to handle corporate tasks, pay bills, transfer funds, and perform other financial and banking services. Over time, this AI Agent architecture can fully automate a corporate or other legal entity's financial operations."

I further explain this **"Bank not only maps the most legitimate Web3 tokenization model (RWAs) to the most profitable component in Web2 banking (lending), but we do so such that the profit mechanism becomes a fully transparent, smart contract-driven, and Basel IV compliant Web4 financial archetype. This financial alchemy allows Bank to become the first and only regulated and fully decentralized Web4 banking platform. Alternative pledged assets could include fiat, physical property such as land, a corporate legal entity, a mining operation, or any other asset that can be tokenized. Deposited assets could include stablecoins, deposit tokens, cryptocurrency, tokenized assets, tokenized business entities, tokenized land, minerals, rights of any sort, or any tokenized property or contract. Onboarded assets may undergo AI Agent based KYC/AML background checks, valuation assessments, title validation and ownership confirmation, as well as any other analysis or screening before accepted as a deposit in the tokenized Bank. Non-tokenized assets such as contracts, loan agreements, fiat, CDs, Treasury notes, bills or bonds can also be accepted as deposits.**

This application is a tokenized financial system that provides all the standard banking services present in Web2 online banking systems, but in a Web3 tokenized format. The bank application has 5 main services, which are Deposit, Withdraw, No-Fee Payment/Transfer, Personal (Point to point) Interest-Free Loans, and Commercial Interest-Free Loans. This application is comprised of one or more stablecoins, utility tokens, RWA tokens, or other forms of collateral. To further describe the banking application, there will be 3 RWA tokens utilized in the following example. The three tokens, each with an accompanying native token that can be used to pay dividends, yield, or provide governance services for the tokens."

I also state the following aspects of integrating AI Agent architecture into a tokenization model that includes carbon accounting:

"This AI Agent framework can also aid in generating reports for GHG/SDG/ESG compliance like TCFD, IPCC, and GHG Protocol assessments for government and corporate reporting. Other AI system designs can utilize this SDG scoring system, and potentially measure and score the digital MVR and IoT data and network design to provide further scoring options, as well as provide data and information for registering projects or tokenized assets with both compliance and voluntary markets, as well as blockchain implementations involving cryptocurrency as well as Non-Fungible Tokens. This system can facilitate DeFi, ReFi and other blockchain based financial services such as payment systems and banking facilities, such as the one described next."

I further explain how to build a commodity-backed decentralized monetary system by **"Incorporating the PARYS Carbon RWA as the primary deposit token allows Bank to remove physical custody, and more importantly, physical delivery pains associated with all other commodities suitable for asset-backing a decentralized monetary system."**

I define the overall basic processes that allow the bank to use RWAs to provide tokenized loans based on deposit hypothecation, and the network effect of repaying in other tokens to magnify credit creation in the system. This also defines the use of 3 tokens to fulfill banking services; deposit tokens, loan tokens (first definition of), and payment tokens:

"Bank employs 3 primary process strategies into both personal and commercial lending models, targeting profitability while reducing interest rates:

1) **RWA Specific Accounting Methodologies.**
2) **Proxy-Tokenized Hypothecation.**
3) **Web4 Network Effect.**

Bank consists of 6 core banking services: Deposit, Withdraw, Payment, Transfer / Swap, Personal Loans, and Commercial Loans. Bank utilizes 3 token categories to implement these core banking services; PARYS Carbon RWA as the primary deposit token, REMIT as the primary loan token, and REPAY as the primary payment token. Additional deposit tokens can include any Customer issued RWA, including PARYS Water RWA, PARYS Mineral RWA, PARYS Land RWA, PARYS Stablecoin, or Tether Stablecoins USD₮ and USA₮. The Bank base currency, or store of wealth, is the PARYS Carbon RWA as the primary deposit token. REMIT is issued to loan recipients with full network liquidity, like a stablecoin, but provides additional services to Bank to be able to manage loans more efficiently and reduce fraud. REPAY serves as a means of exchange and transfer of value for Bank customers. Each of the three primary tokens have a native token associated that can be used to govern, pay dividends, or provide fundraising services for Bank.

Bank can also take advantage of the PARYS Carbon RWA proprietary carbon accounting methodology based on GHG Protocol to provide significant value for participants across all banking service tiers. PARYS Carbon RWA has a total of 5 yield inputs, 3 of which are circular by design, targeting 20-40% APY for all Bank depositors. In addition, the Commercial Loan Service leverages the Proxy-Tokenized Hypothecation and rehypothecation, and Web4 Network Effect strategies to achieve yield or interest for Bank".

I also define a tokenized Quantitative Easing model which follows our existing QE but adds a 3rd step in the process to bail out banks by issuing tokenized loans to a Treasury, far superior than Treasury Bond issuance to reduce inflation: "**To manage loan risk across multiple jurisdictions, Bank implements the 3-phase QE governance model described below:**

Bank QE1 (mostly associated with inflation and market bubbles) - The Bank L1 bank purchases back a given threshold of bad or non-performing loans within Bank L2 banks to realign the banking system balance sheets overall to a safe operational level. Since this would be transactions within the banking system, it doesn't create additional new credit (i.e. mint more tokens), or create additional inflation within Bank. This would simply transfer bad loans from the Bank L2 balance sheet to the healthy Bank L1 balance sheet to be dealt with through legal means, or simply written off by the Bank L1 bank after Bank L1 internal review.

Bank QE2 (mostly associated with deflation and increased unemployment) - The Bank L1 bank creates credit for a failing Bank L2 bank or banks by purchasing assets outside of the banking system, which creates credit and hence mints tokens for the system. This has the ability to realign Bank L2 bank balance sheets systemically, or potentially target specific Bank L2 banks by purchasing assets that can facilitate the asset seller becoming a client of the Bank L2 bank.

Bank QE3 (referred to here as Country level Treasury QE, where the Treasury issues bonds with dramatic rate increases) - The Treasury could request that the Bank L1 bank provide a low-interest loan based on Customer RWA production and Bank commercial lending practices to facilitate core public interests. This would be far better than the Treasury issuing high-rate bonds, which are far less liquid and far less beneficial."

I define a Pledging Structure that allows for risk-free deposits into the bank, but does one simple measure that ensures assets for customers that no bank currently offers:

"II. BACKGROUND AND TRANSACTION STRUCTURE

Under the 2016 NY Law VM CSA, the Pledgor delivers eligible assets as collateral to the secured party, creating a security interest while retaining beneficial ownership. In the Program, the Pledgor delivers assets to Pledgee as Custodian. Pledgee accepts these assets as pledged collateral to secure its performance obligations to deliver APY or RWA-linked yield or dividend payouts. Pledgors have no payment obligations and therefore cannot default. A Credit Support Default under Section 5(a)(iii) may occur only if Pledgee fails to perform under this pledge agreement.

III. LEGAL CHARACTERIZATION UNDER NY AND ENGLISH LAW

A. Security Financial Collateral Arrangement

The 2016 NY Law VM CSA and English Law CSD are recognized as security financial collateral arrangements, where the secured party holds collateral under a security interest, not ownership. Under 2016 NY Law VM CSA, the act of Pledging allows the Pledgor to retain beneficial ownership, consistent with UCC Article 9 and EU Directive 2002/47/EC. Thus, the Program structure fits within this framework, allowing full Pledgor control and exit rights under an approved unlock schedule.

B. Trust-Like Effect of Pledge Arrangement

The arrangement functions like a private trust: the Pledgor is both Trustor and Beneficiary, and Pledgee acts as Trustee and Custodian. The pledged assets are segregated, perfected, and insulated from third-party claims, ensuring maximum protection for the Pledgor.

C. Full Waiver of Right to Title Transfer Custodied Collateral

Under this Agreement, the Custodian and any other Counterparties involved waive full right to transfer title of the collateral being pledged for any reason, including but not limited to, bankruptcy or insolvency.

VIII. CONCLUSION AND OPINION

1. The Parisii™ Pledge Structure qualifies as a security financial collateral arrangement under NY law, per the 2016 ISDA VM CSA Framework.

2. Beneficial ownership remains with the Pledgor.

3. Parisii's interest is limited to a contractual security interest securing its performance obligations.

4. Credit Support Default arises only from Parisii's non-performance.

5. Liability is limited to return of pledged collateral.

6. The structure is legally sound, enforceable, and investor-favorable."

I also explained the PARYS RWA 6 yield input design:

“The inspiration was for the PARYS RWA architecture, it wasn't stablecoins (although that turned out to be the best implementation model in Web3 for what we are doing). It was actually Special Drawing Rights:

https://www.imf.org/en/About/Factsheets/Sheets/2023/special-drawing-rights-sdr

whereby the IMF designed SDRs as a "basket of currencies" containing the 5 most issued fiat currencies. The SDR price index is an average price of all 5 in the basket. Customer is doing the same with PARYS Carbon RWA, but with four carbon asset types (EUAs, JCOs, ITMOs, and CBAMs) as the "basket of carbon", and the PCRWA price index being a weighted averaging of the value of assets.

That was the origin. From there I applied reinvestment into Sustainability projects since we could capture profits and carbon asset generation for additional input value into the basket. Then I applied the carbon accounting via GHG Protocol to further inflate the Treasury price over time as a multiplier. The latest enhancement was the addition of the Staking program, growing the PARYS Carbon RWA into the 6-yield input design it is today.

There simply is no more circular or compounding financial instrument on the planet, not even close. And it is tax free, fully secured under US law, and fully audited by a big 5 accounting firm quarterly for transparency.”

I provide details on how we use some of the hypothecated value to issue RWAs and loan tokens, as well as provide liquidity on ledgers for the RWAs and loan tokens we mint through the process of loan issuance:

“5) Both the Treasury value and the RWA value can be used for loans, so even if we only do 10x per, it collectively represents a 20x mint of PARYS Carbon RWA and a 20x mint of REMIT loan tokens overall initially, half from Treasury and half from RWA staking from the customer.

6) Both are put on Uniswap as a trading pair for full liquidity. However, since the 20x PARYS Carbon RWA is held by BANK for liquidity, it is a 20x asset for the bank. The REMIT loan tokens are then issued for loans, which will be repaid as PARYS Carbon RWAs, REPAY payment tokens, or PARYS stablecoins, purchased separately by the loan recipient. The full transaction puts 20x REMIT on the exchange for long-term

circulation at 30-50% APY. The payback also produces 20x in additional tokens, which will be converted to PARYS Carbon RWA for BANK as additional profit."

I explain how we normalize both GAAP and IFRS accounting standards as part of our tokenized bank to handle accounting in both US and internationally as an automated process:

"To first build a fully tokenized bank, we normalized both GAAP and IFRS accounting standards from a banking standpoint, and then built in a third set of data elements to represent all similar banking transactions as tokenized entries via approved digital assets. If you look at the two attached spreadsheets ("Normalized US GAAP & IFRS Accounting Standards - Q4 2025.pdf" and "Bank eon - Chart of Accounts - Q4 2025.xlsx"), they show not only the normalized GAAP and IFRS accounting standards from a banking perspective, but you can see where we have mapped in digital asset entries alongside to fully map our tokenized banking system, Bank, to both accounting systems in use. Bank can produce accounting reports for all jurisdictions worldwide (US and international) but also map all those transactions to crypto as digital asset entries. This is the first and only such attempt to do so for the banking sector that Customer is aware of."

I explain the onboarding process of physical and digital assets into the bank as deposits for use, by obtaining a Loan-to-Value through a custodied auditing mechanism specific to this tokenized bank model for achieving liquidity across participating ledgers:

"This invention is a new process for structuring real world asset tokenization as a primary/spot market software implementation. It encompasses asset valuation, tokenization, and price recognition of the asset not by exchange-driven price discovery, but through a structured process and methodology-based auditing mechanism. This process will allow collateral owners to pledge their collateral to a tokenization process involving a custody provider, as well as a licensed accounting entity for ongoing auditing of the asset class and reserves, to drive the price discovery based on audited valuation of the underlying collateral in combination with market demand. This process bypasses the current requirement of raising fiat and submitting it into the system to realize the audited valuation of collateralized assets in an RWA issuance. Instead, it works with regulated assessment providers to initiate the value

as a token, and then works to audit and assess the RWA issuance to provide a pricing mechanism not derived from TVL or trading pair liquidity. Existing RWA token issuances require the collateral provider to transfer/blindly title their collateral into a custody provider, and then have the token issuer raise funds in fiat or crypto in order to provide liquidity for the RWA issuance. The fatal flaw in this is that the existing crypto exchanges don't acknowledge the inherent price determined to the underlying collateral. Instead, the RWA token issuer has to not only purchase the collateral, but then pay for marketing the asset. All while being undercut by the "first RWA" as stablecoin.

Consider a new market design whereby advancements are introduced. This not only is fully unique in process flow and market design, but removes most of the problems in Web3 RWA issuance and benefit today.

1) **RWA tokenomics and valuation are based on IFRS/GAAP Accounting standards.**
2) **Once the collateral provider assigns their collateral to the service, it is deposited into custody, and then assessed in authenticity and value.**
3) **From there, a token can be issued to represent the collateral in custody as valid, and doesn't need any further fiat purchasing to maintain price, bind to a trading pair for swap, and/or other trading activities.**
4) **The fallacy of all non-fiat backed RWAs issued to date is that once they provide full collateralization upon deposit, the crypto/Web3 exchange designs require any RWA tokens to be fully fiat-matched for liquidity while in use. That makes no sense for any RWAs other than stablecoins, which are expected to be immediately redeemable for fiat. All other RWAs shouldn't be considered or positioned as stablecoins, as the latter are simply proxies for US T-bond yield.**

The design flaws mentioned earlier and again in number 4 above confirm that the only way to legitimize a non-fiat associated RWA issuance in blockchain-based exchanges today, is that it literally has to be double-collateralized due to the immaturity of the RWA market."

I also included a taxation or fee per transaction model in the RWA implementation: **"This RWA application begins with a definition of the digital asset/property that the RWA will represent. The digital asset/property can be assessed for overall value in USD or another monetary denomination, and an NFT can be minted to represent the digital asset/property on the blockchain. The asset can be represented by any custody**

mechanism integrated into a Web3/blockchain ledger technology. The NFT of one or more digital assets/properties can also be used in a custodied or non-custodied collateral pool. Based on the value of the property in the collateral pool, crypto tokens can be issued as RWAs representing fractional or whole value representations of the collateral associated with the RWA. The collateral can be any real-world property including natural resources like land/real estate, minerals or their mining rights/ownership, oil, coal, energy, gold, silver, uranium, commodity or any other property that can be represented digitally through an NFT or crypto tokenization issuance. Once the RWA tokens are minted and in circulation, the smart contracts associated with the RWA or software that the RWA is constructed with can include logic that will serve to tax the use of the RWA on network across any potential decentralized ledger technology by sending a fee back to a tax collection software service on the network or accessible on the Internet. The fee or tax will be paid when the payable or transfer functions are called on the smart contract or software implementing the token itself.

This RWA transaction application should support paying a tax or fee per transaction from the token smart contract or token software during the transaction in which the RWA tokens are being transferred. For instance, if the tokens are issued to a wallet upon minting, then whenever the tokens are transferred to another wallet, they should assess a fee and transfer it to a wallet for tax collection. The transaction can calculate the fee based on a percentage of the overall transaction, or a set fee based on the tax collection service. The tax collection service should be a server or application at a specified IP address or blockchain address, and may be simply a digital wallet used for collection of taxes from the use of the RWA on the blockchain network. The fee/tax assessment can be restricted or assessed based on blacklisting or whitelisting the sending or receiving party, and the lists can be based on either IP addresses or wallet addresses of the parties involved. One or more fees or taxes can be paid during a transaction with this application.

The RWA application should work in the following manner:

Identify the collateral (digital asset representing gold, silver, carbon, coal, oil, timber, or any other real-world property) that will be used to asset back the RWA issuance and assess its value, currently as well as on a cyclical basis in the future. For a mining, oil and gas, or forestry operation, it could be estimated annual or quarterly production from the facility.

Determine the collateral's value, and mint an NFT on blockchain to represent the collateral, and confirm the value associated with the collateral in USD or some other monetary instrument of measure.

Determine the tokenomics for the RWA including total number of tokens issued, who will own initial issuance and to what percentage, as well as how many will be sold long term to customers and investors with an unlock schedule for all tokens.

Issue the tokens and release some to the public on blockchain for purchase.

Once purchased, if the tokens are transferred to another wallet or owner, have the smart contract of software code that control and make up the RWA token contact the tax or fee collection service on the network (blockchain or Internet based) and have the tax or fee be calculated for the transfer of the RWA tokens between owners based on the value and size of the transfer.

Once the fee is calculated and sent back to the smart contract or invoking software, the fee or tax can then be removed from the sender's wallet and sent to the fee or tax collection service. The transfer of the RWAs initially requested can then be forwarded to the recipient to complete the transaction.

This will serve to collect a fee or transaction from the sending party for use of the RWA on the network as a store of wealth or medium of transfer / payment on the network.

The collateral can also be provided to a money market fund as collateral to generate an APY for the collateral held by the RWA provider, which may or may not be the tax collection service.

This RWA application can use the following software framework describing a RWA on blockchain software tokenization application as the basis for the taxable RWA tokenization application described above."

I detail how the hypothecated loan tokenization model works: **"Hypothecation in banking is a practice where a borrower pledges an asset as collateral for a loan while retaining ownership and possession of the asset. The lender has a security interest in the asset, allowing them to seize and sell it to recover the loan amount if the borrower defaults on the loan.**

This practice is commonly used in secured lending, such as car loans and margin trading in securities markets. In car loans, for example, the borrower retains possession of the car but the bank has the right to seize it if the borrower fails to Primary Payment token the loan.

Hypothecation allows borrowers to use their assets as collateral to obtain financing, making it easier for them to secure loans. However, it also involves risks, as the lender can take possession of the collateral in case of default.

In some cases, lenders may engage in rehypothecation, where they use the collateral as security for their own obligations, potentially leading to a chain reaction of security sales if one borrower defaults.

One primary aspect of this banking application is the ability to issue new tokens through the loan issuance process so that the tokens can be hypothecated based on the available collateral, whether that collateral is any of the commodities listed herein, or another cryptocurrency, or another fiat currency, or any other accepted collateral. When the loan is issued, not only will the collateral for that loan be locked in custody by the bank, but additional tokens will be issued as needed and can be loaned out in a hypothecation mechanism. So, if one loan is taken out and one RWA or other collateral is put in custody to secure the loan, the bank will use hypothecation to issue additional tokens within legal banking standards, which may be a 3x to 10x hypothecation mechanism where additional tokens will be issued for additional loans like a traditional loan does. The hypothecated tokens can then be issued as new loans to other customers than the one that initiated the loan that locked up collateral for the life of the loan.

Another primary aspect of the banking application is the loans have to be paid back in any currency or means of payment other than the token types issued to the loan recipient. In other words, if the loan recipient receives LOAN TOKENS as part of a loan, the loan has to be repaid in any other form of currency other than LOAN TOKENS, preferably currency issued by another entity besides this bank application to create a network effect to issuing tokens on the network. This will force the LOAN TOKENS to get used by the loan recipient and another type of token will need to be paid back to the bank application to service the loan repayment. This will allow for more bank application tokens to enter and stay in circulation. The bank reserves the right to not accept any of the tokens the application issues as a form of repayment of a loan, and may use this rule as a standard operating rule."

I included a "Arabian Banking" model for regions that comply with Sharia Law:

"A cryptocurrency may be considered usable and correct in the Middle East if:

1. **It is used as a medium of exchange or store of value—not gambling.**

PRIMARY RWA TOKEN and the entire Bank Financial System can be used as a medium of exchange and store of value. We do not participate in any gambling venues.

2. It is acquired lawfully and not used for haram purposes.

The underlying collateral is acquired lawfully, and profits will be reinvested in large part into sustainability programs worldwide.

3. Trading is done without riba (no interest-bearing loans or futures).

Bank will never provide interest-bearing loans in association with our financial services. Bank only participates in spot trading of our crypto assets, and doesn't participate in any futures trading directly.

4. There is no deceptive practice or excessive uncertainty.

Bank doesn't participate in any deceptive loan programs or excessive leveraging of assets for any financial services. All financial services are being provided under government regulated financial bodies.

I included utilizing all 17 Sustainable Development Goals (SDGs) into building yield for RWAs, as both GAAP and IFRS carbon accounting standards now include utilizing activities that accomplish any of the 17 SDGs as value creation for the associated Treasury:

"Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development"

I included all 5 forms of AI Agent architecture known currently in the process of executing or automating any of the banking and tokenization services provided herein, including LLM and RAG based designs, to be used within the banking platform to achieve agentic commerce:

"1. Simple reflex agents

Simple reflex agents are the simplest agent form that grounds actions on current perception. This agent does not hold any memory, nor does it interact with other agents if it is missing information. These agents function on a set of so-called reflexes or rules. This means that the agent is preprogrammed to perform actions that correspond to certain conditions being met.

If the agent encounters a situation that it is not prepared for, it cannot respond appropriately. The agents are only effective in environments that are fully observable granting access to all necessary information.6

Example: A thermostat that turns on the heating system at a set time every night. The condition-action rule here is, for instance, if it is 8 PM, then the heating is activated.

2. Model-based reflex agents

Model-based reflex agents use both their current perception and memory to maintain an internal model of the world. As the agent continues to receive new information, the model is updated. The agent's actions depend on its model, reflexes, previous precepts and current state.

These agents, unlike simple reflex agents, can store information in memory and can operate in environments that are partially observable and changing. However, they are still limited by their set of rules.6

Example: A robot vacuum cleaner. As it cleans a dirty room, it senses obstacles such as furniture and adjusts around them. The robot also stores a model of the areas it has already cleaned to not get stuck in a loop of repeated cleaning.

3. Goal-based agents

Goal-based agents have an internal model of the world and also a goal or set of goals. These agents search for action sequences that reach their goal and plan these actions before acting on them. This search and planning improve their effectiveness when compared to simple and model-based reflex agents.

Example: A navigation system that recommends the fastest route to your destination. The model considers various routes that reach your destination, or in other words, your goal. In this example, the agent's condition-action rule states that if a quicker route is found, the agent recommends that one instead.

4. Utility-based agents

Utility-based agents select the sequence of actions that reach the goal and also maximize utility or reward. Utility is calculated using a utility function. This function assigns a utility value, a metric measuring the usefulness of an action or how "happy" it will make the agent, to each scenario based on a set of fixed criteria.

The criteria can include factors such as progression toward the goal, time requirements, or computational complexity. The agent then selects the actions that

maximize the expected utility. Hence, these agents are useful in cases where multiple scenarios achieve a desired goal and an optimal one must be selected.

Example: A navigation system that recommends the route to your destination that optimizes fuel efficiency and minimizes the time spent in traffic and the cost of tolls. This agent measures utility through this set of criteria to select the most favorable route.

5. Learning agents

Learning agents hold the same capabilities as the other agent types but are unique in their ability to learn. New experiences are added to their initial knowledge base, which occurs autonomously. This learning enhances the agent's ability to operate in unfamiliar environments. Learning agents may be utility or goal-based in their reasoning and are comprised of four main elements:

Learning: This improves the agent's knowledge by learning from the environment through its precepts and sensors.

Critic: This provides feedback to the agent on whether the quality of its responses meets the performance standard.

Performance: This element is responsible for selecting actions upon learning.

Problem generator: This creates various proposals for actions to be taken.

Example: Personalized recommendations on e-commerce sites. These agents track user activity and preferences in their memory. This information is used to recommend certain products and services to the user. The cycle repeats each time new recommendations are made. The user's activity is continuously stored for learning purposes. In doing so, the agent improves its accuracy over time."

I provided a description of the 14 drawings provided to explain all the processes found within this banking system:

"FIGURE 1: DIAGRAM OF CARBON ACCOUNTING PROCESSES

I believe this patent application exhaustively covers the most complete and comprehensive tokenized banking system designed to date.