Loci

Whitepaper

Version 7*

"Platform for Intellectual Property Discovery & Mining"

loci.io

info@loci.io

*This version and its contents are current as of 2/6/2018 and supersedes all previous versions of this whitepaper or any public statements made about Loci are subject to change. This English version is to be relied upon as the most accurate and updated as other language translations may have mistranslations and be outdated.

Table of Contents

Mission Statement

Loci's mission is to change the way the world invents and value ideas... Our goal is to become the gold standard platform that empowers inventors and promotes the effective matchmaking of ideas, capital and talent.

The mission encompasses:

- Creation of a revolutionary invention process that enables innovators to better find and claim their ideas using blockchain technology
- Utilization of native tokens for the creation, buying and selling of intellectual property and to become cryptocurrency that will become the standard valuation metric of all intellectual property
- Development of commercialization vehicles for development or licensing of inventions
- Building of a IP bidding marketplace to create an EBay of intellectual property
- Construction of mechanisms and social networks to incentivize and make development easier
- Deployment of an innovative economic model that fosters the growth of inventor eco-system

Executive Summary

The global invention process is fundamentally flawed. Enormous sums of money are wasted on research and development (R&D) in part due to ineffective global intellectual property laws and outdated research and registration processes. Wasted productivity accounts for a majority of global R&D expenditures, and creates a needlessly chaotic and risky landscape for innovation. Convoluted, inefficient and fraught with expense, the innovation process itself stifles progress. From patent attorneys, to inventors, to corporate analysts, there is a widespread need for the ability to quickly and comprehensively search for intellectual property and to put those results to work to propel innovation to the next level. Loci provides a blockchain technology based solution.

Loci is poised to change the way the world thinks and invents

Loci has built a context based search tool that draws from an expansive database combining a vast array of resources and information provided by inventors directly. By means of blockchain technology the system serves inventors by offering immutable proof of intellectual property rights on a global scale. Search results are presented in a comprehensive map of all known patents and relevant information, an interactive, user-modifiable, and visually appealing Venn diagram of technologies, inventions, patents and ideas that we call “InnVenn.”

InnVenn helps inventors make the next big discovery

Loci invented, patented and launched InnVenn, the platform that is revolutionizing R&D. Loci's first patent, “System and Method for Fuzzy Concept Mapping, Voting Ontology Crowd Sourcing, and Technology Prediction,” (US9461876), reconstructs the mechanisms by which ideas are discovered and attributed to owners. Loci's user platform is a data aggregation source for search queries that enables users to recognize the location of novel inventions and ideas. The process is a patented system built upon a unique combination of contextual searching, predictive analytics, machine learning, heuristics, Bayesian statistics, and user input. The system’s backend aggregates searches and refinements while maintaining complete confidentiality and security.

Search is just the beginning. Loci’s proprietary machine learning process takes it to the next level. Loci technology analyzes research trends, and by mapping what is known, Loci can discover what’s not and where there might be ways to link inventions in new ways or to identify unforeseen opportunities to invent new products. The gap between current technology and undiscovered connections is what Loci calls “whitespace.” It is possible that one day Loci could predict the interactions between every idea that exists or could exist in an effort to create a transparent valuation metric for all IP.

Executive Summary

LOCIcoin could play an integral part in the paradigm shift in how ideas are valued and exchanged

The process of idea discovery, invention and patent process can take years. InnVenn is a multi-sided platform that offers inventors a significantly faster and more cost effective alternative to capitalize on their inventions compared to the current patent process. LOCIcoin tokens will be used by inventors to stake their claims on InnVenn. By recognizing the value of the discovered and staked inventions, InnVenn will reward inventors with LOCIcoin. InnVenn becomes the marketplace for the exchange of ideas between the inventors and companies or investors seeking to develop them -- all transacted with LOCIcoin.

Patent Background

A patent is defined as a government franchise or license conferring a right or title to an invention for a set period. It is an effect a monopoly which grants to an inventor the sole right to exclude others from making, using, or selling his or her invention. Those seeking patent protection must prove that their inventions serve a purpose, be well defined, of a patentable subject matter, novel and not obvious. This requires inventors to spend copious amounts of time refining their invention with schematic drawings, tables, charts, voluminous definitions, and descriptions. To implement the policy behind the patent doctrine, the specifics must be disclosed to the public as a trade with the government to obtain the limited monopoly.

The patent process is long, arduous and expensive, but the protection of intellectual property is fundamental to the success of businesses as they provide a barrier to entry by competitors. Small companies cite patents and applications to demonstrate their viability during fundraising from venture capitalists or from crowdfunding platforms [1]. Many tech startups, in fact, rely upon applying for patents, especially in the biotechnology industry, where over 95% protect their products through patents. [2] Utility, plant, and design patents are the major categories of patents in the U.S. Upwards of 90% of new patents are classified as utility patents. [3] Design patents include original and ornamental design formats that are exclusive in nature. Plant patents protect new and distinct, invented or discovered asexually reproduced plants.

Four major components are required for the patent application through the USPTO including:

1. Technical specifications, including a summary of the invention, and schematic mock-ups or concept drawings;
2. One or more claims;
3. An oath or declaration that the inventors listed were the first to invent the subject matter described and claimed [4]; and
4. Applicable filing fees.

Nearly 2.9 million patent applications were filed worldwide in 2015. China is experiencing strong growth in patent filings [5]. The United States, China, South Korea, Japan, and Germany rank as the countries with the most patent applications.

Despite recent disruptions in the traditional fundraising market through crowdfunding and Initial Coin Offerings (ICOs), patents or the protection of intellectual property they afford will continue to be needed in any marketplace, anywhere competition exists. Companies require patent protection to ensure the existence of their businesses which also enables them to control how and where their intellectual property is used. Licensing agreements allow other companies to purchase patented technologies and to incorporate them into their own products.

The Big Problem

The United States patent system changed dramatically in 2013, the year that the US Patent system switched from the “First-To-Invent” (FTI) system to the “First-Inventor-To-File” (FITF under the Leahy-Smith America Invents Act (AIA). The original FTI system was seen as offering an added measure of protection to the actual inventor where a simple sketch with some notes, if disclosed, could be considered “prior art” and mean the difference in being granted a patent or not. The newer FITF system favors whoever wins the race to the patent office, often a large company with deep pockets that afford to pay the high legal fees needed to get patents submitted more quickly. The United States was the last country to hold on to the “first-to-invent” system.

First-to-file favors big companies and those that can afford to pay the high legal fees in order to get more patents submitted more quickly. What’s more, patent attorneys have a duty to alter, rescind, or abandon their client’s patent application if a legitimate public disclosure by another inventor of the same invention was made prior to their client’s public disclosure and first application

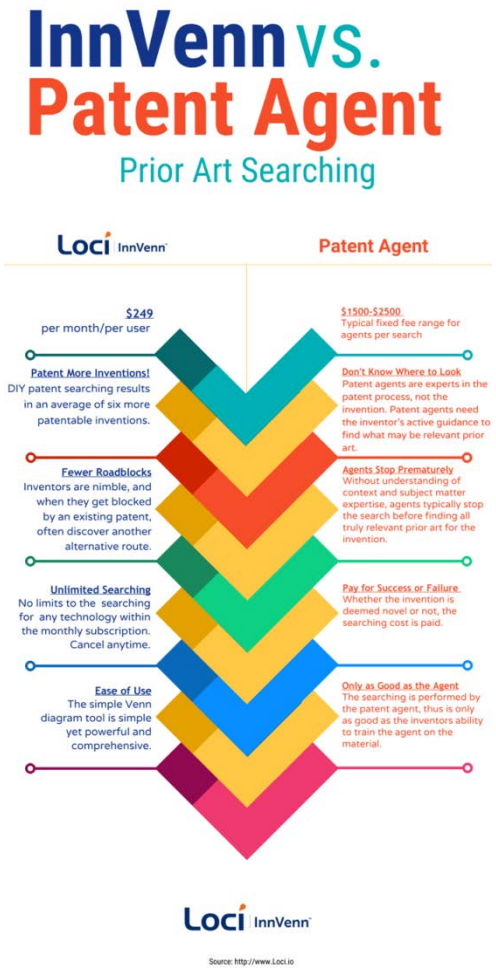
The newer FITF system hinders bootstrapped inventors attempting to solve the world's problems. Most patents require a full prior art search before the patent application process can even begin. That means a comprehensive search of existing, patented technologies, which can cost upwards of $2,500. An initial provisional patent application costs a fraction of the full patent, yet still ranges between $1,000 and $5,000 by the time it is drafted and submitted. The average non-provisional utility patent application is even more expensive with costs running from $5,000 to $50,000. The majority of these fees are incurred during an IP attorney's review of the documentation and claim writing, but that’s not all. Additional fees are incurred during patent prosecution over the course of three to five years, and a typical non-provisional application will incur a total cost of $10,000 to $30,000 with no guarantee of a patent. [6] Inventions that are more technical and comprehensive in nature can easily cost hundreds of thousands of dollars.

Then there’s timing, which is not the only thing, but everything. If an inventor files an application just one hour after another applicant has filed for the same invention, his invention would be owned, if a grant was made, by the other applicant. The existing patent system provides little to no transparency of this timing risk for an average of sixteen months of the process, which could mean years and hundreds of thousands of dollars, spent on an invention, which could suddenly become a patent infringement. Liability and the risk of litigation lead to spiraling legal costs. In 2015, there were 5,600 IP litigation cases in the US alone, with a median damage award of $9.2M.[7] The cost of defending a patent has led to the spawn of NPEs (non-practicing entities, also known as “patent trolls”), whose main form of revenue is derived from settling patent infringement cases that inventors could not afford to fight in court.

The Big Problem

This haphazard and often illogical system of patent application and protection has hindered what should be a smooth and steady path of innovation. To ratchet up the level of risk up another notch, a successful patent application is not a guarantee of success in the wider world. Businesses all over the world waste substantial resources with failed technologies, internal inefficiencies, untimely product launches, and litigation.

Tools for invention search are now available but either difficult to use, expensive, limited to outdated data, or unable to deliver comprehensive results. There have been minor recent innovations in document search capability. Google Patents, the USPTO patent search engine, FreePatentOnline, and Innography are among resources most turned to for researching patents. These resources deliver long, cumbersome lists of somewhat relevant patents that require far more manual processing time. They are effective but inefficient.



Loci's Unique Solution

Loci's founder John Wise experienced problems with the patent process first-hand as an engineer and felt that the entire patent system needed top be fundamentally altered. In 2008, John and Dennis Van Dusen first developed the idea of "Fuzzy Concept Mapping", the core of Loci's platform. This revolutionary concept addresses one of the most challenging aspects of the patent process, the development of inventions that have not been previously patented. After nearly a decade of research, effort, and money, US Patent and Trademark Office (USPTO) granted U S9461876, "System and Method for Fuzzy Concept Mapping, Voting Ontology Crowd Sourcing, and Technology Prediction."

Loci's InnVenn platform includes a document search tool that provides results in a user-friendly Venn Diagram form rather than the long list format produced on other platforms. InnVenn tracks search results and enhances the user's control over the process by tailoring his or her claim to something that can be granted. In the process, a user may well find a new invention, and InnVenn provides the capability to record it. Relevance mechanisms, including cluster and concept based search, improve user efficiency, reducing the drudgery of deeply analyzing the thousands of results that inventors and patent attorneys often sift through before an invention's novelty can be determined.

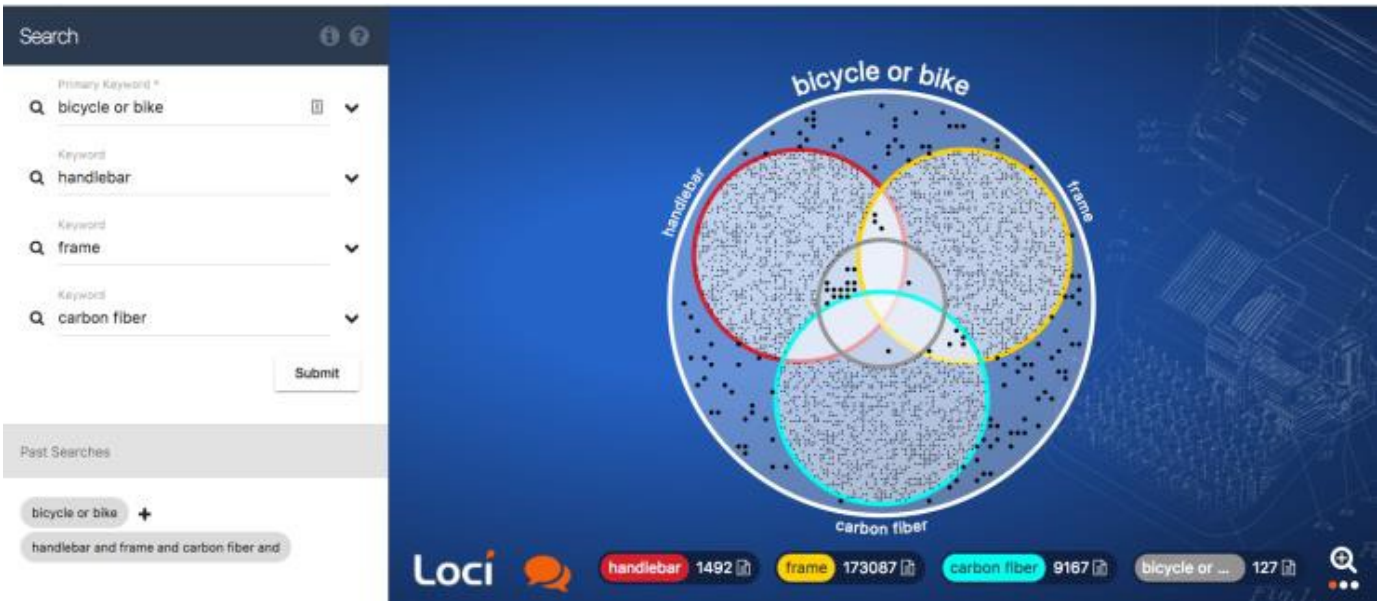
InnVenn goes beyond search to help inventors stake their claims by acting as a blockchain-integrated public disclosure platform. It has the effect of moving the inventor closer to a patent application and assisting patent attorneys by providing a starting point for undertaking and understanding a prior art search. Public disclosure, with sufficient specificity, locks out others from seeking rights to an invention. Public disclosure sets the clock, in several but certainly not all countries, for the start of a one-year window for filing a non-provisional patent application without loss of rights.

The integration of blockchain technology into InnVenn establishes an immutable data point containing a time stamp of an invention's public disclosure. This disclosure, recorded on the blockchain, begins a 12-month grace period for the filing of a patent. Loci is intent on speeding the process of getting an idea protected and the use of blockchain technology offers a solution, but with the First- to-File rule, only getting that application to a patent office can establish a priority date. InnVenn does provide a much faster process of moving from idea to application by improving the communication between client and attorney. Loci's proprietary machine learning abilities may also improve the process, even predicting and prompting new and potentially relevant connections between known inventions identifying "whitespaces" where there is ample room for innovation and invention. As the volume of searches increases, the system becomes more effective and valuable.

Loci's Unique Solution

Seeing Where Your Idea Stands with InnVenn

Search current ideas and patents through Loci's InnVenn technology platform, complete a more comprehensive web search and help you see if your concept is original.



Loci launched the InnVenn platform in February 2017. The InnVenn web application launched with existing patent data from numerous published sources, including existing patents, technical papers and products. It is also designed to include new inventions in search results as they are added to the database. The InnVenn user interface is a Venn diagram that presents results by means of a unique, multi-layered, compounding search feature. It is populated with active users' disclosures as well as results gathered from published sources. InnVenn's ability to run up to four searches simultaneously enables users to focus quickly in on existing patents or potential claims. The "whitespace" between identified patents and claims indicates where there is room for further innovation. InnVenn's backend is built atop statistical calculation and analysis for investment pool opportunities, whitespace definition, valuation and categorization. This technology empowers inventors, entrepreneurs, researchers, and investors to search for the next big idea.

InnVenn Status and Features

The version 1.1 release in September 2017 includes numerous interface improvements and capabilities.

Loci's Unique Solution

The v1.1 improvements help the InnVenn platform to enhance its ability to uniquely position novel ideas and to organize the search process. It contains a new system for managing searches called projects. Users can initiate an unlimited number of projects, and can search for various patents and claims within separate projects, organizing and search results within each project. Another major improvement enables users to toggle the primary keyword search on and off within secondary searches. This allows for a unique search process where the user can clearly identify what results exist within the three secondary searches that are not within the primary search. This differentiates InnVenn from every other search process in the market and allows users to dig deeper into relevant results. Finally, there is the capability for users to create patent claims within the InnVenn platform. This claim process is designed to be the first step in a provisional patent application and allows users to define their inventions, upload relevant drawings and select and display saved result sets that define the novelty of their claims.

The version 1.2 release in November 2017 includes blockchain integration with Ethereum and bidding process for IP

The new capabilities with the v1.2 release mark a critical evolution in the InnVenn platform. Posting disclosure event data to the Ethereum blockchain is now possible as well as paying for that process via LOCIcoin and monitoring its progress. A DApp is currently in development to view the data posted simply within the platform as well. Also notable among the improvements to the UI and process, is the bidding process where a user can place a bid for any IP that is found within the InnVenn platform. This is fundamental to the overall exchange of IP that is possible within the platform.

InnVenn Competitors

InnVenn's visual mapping and concurrent search tool is a significant improvement over what its competitors have developed. Four key competitors, Evalueserve's Treparel, Innography, Mapegy and Intellixir exist in the patent visualization space, yet none of them make use of crowdsourcing or blockchain technology.

Loci and its patented technologies in the InnVenn platform are poised to change the way the world invents.

Blockchain Implementation

Loci's vision is to create a new global and transparent invention registry system and database founded on the power of blockchain technology. This cannot currently be deemed an official registry, but Loci's intent is to work with patent offices over time to streamline their processes. It is worth noting that this has been the plan for the InnVenn system since its inception and the conceptualization of its original patent in 2008. Specifically, the original InnVenn patent described a system for immutable tracking of disclosures but used a different database scheme than blockchain, as blockchain as a technology was not widely used. The Loci patent details the storage of disclosures in an immutable basis, a key trait of blockchain technology. The patent describes a cryptologic security mechanism for distributed disclosure and concept information for ensuring that the database cannot be corrupted.

Blockchain has added strength and vigor to the technology underlying the Loci platform and has tremendous potential to revolutionize IP on a global scale. The smart contract mechanisms, security models for distributed information, and the immutability of stored data inherent in blockchain are what distinguish the Loci platform. By means of blockchain technology Loci provides a platform that marks proof of concept on a given date and time. While it is not realistic to believe that governments will adopt the larger vision – where a claim may be so fully defined in Loci and recorded on a blockchain that can be submitted to the PTO automatically and accepted – any time soon, Loci has devised plans to leverage the benefits of this technology and to move the invention process out of the bureaucratic dark ages one step at a time. This plan leverages the 12-month grace period granted by the USPTO for the filing of a patent application following a public disclosure.

Loci uses blockchain technology to take a concept to market more securely, efficiently and effectively.

The first step in this process for an InnVenn user is to determine whether he or she can prove the novelty of his or her invention and meet the other statutory requirements necessary to begin a formal patent application. The user can access InnVenn to refine his or her concept or invention to ensure that it stands apart from other products that have already been patented or are in the patent process. The user then has an option to disclose publicly his or her claim to an invention. By entering a claim on the InnVenn platform other inventors within the system are blocked from claiming the same space. This crowdsourcing model inevitably enables other InnVenn users to discover the original user's disclosure by searching for related ideas. When another user reads the written disclosure within InnVenn, Loci creates a third-party verification event which reinforces that the disclosure occurred and is publicly viewable.

Blockchain Implementation

The next step in the process is to package information about the disclosure event and the verification event to ready it for the blockchain. This information includes the unique ID, date and time of the claim creation and the disclosure event as well as the inventor's user ID through KYC as protection against bots. All of this is hashed using the industry standard SHA256 encryption algorithm, and then stored on the Ethereum blockchain.

Currently, proving novelty and satisfying the other requirements necessary to begin the filing process requires that an applicant to contrast his or her patent with all other existing similar disclosures – patents, documents, etc. – that the applicant has stumbled upon or that the patent office has found, even if they are not yet published patent applications. Through the blockchain integration process, Loci enables the user to keep track of his or her inventive ideas on the platform by tracking and differentiating the novelty of his or her invention. This can be accomplished by building searches that would expose similar concepts.

It is very important to note that the InnVenn platform can be used without allowing a claim created in the system to be marked as searchable. Even prior to staking a public claim, adding concepts to the InnVenn system will assist an inventor's attorney begin the provisional patent process. Attorneys and clients are able to leverage the benefits of saved results containing relevant prior art and search histories for proving novelty and to directly communicate this information with one another. This system is designed to work in conjunction with current patent processes and procedures without the use of blockchain technology. As global patent processes change, the blockchain integration will become key to the development of investment pools process and IP marketplaces, and users will have many incentives to utilize the blockchain utility mechanisms.

Users are incentivized to proceed with the staking process because it is required along with the disclosure event for Loci to sell or license the idea through our network of purchasing partners irrespective of the patenting process. Blockchain staking will also create immutable proof of disclosure that can be used in defense of ongoing patent filings during the 12-month grace period.

Market Opportunities

Those working in industries where an understanding of the landscape of innovation is crucial are Loci's primary demographic. This includes IP attorneys, enterprise IP managers, business strategists, investors, inventors, patent researchers, and patent offices. It is important to note that anyone with a good idea can benefit from using InnVenn to perform previously costly research such as prior art searches.

After opting into inclusion in the Loci database, inventors and their inventions are discoverable to those who are in a given field. Because this process is open to view, audit, and is vetted in real time by the experts themselves, Loci has been informed that the database itself is viewed by the USPTO as a public database of patents, products, publications, and new ideas, and thus a legitimate location for public disclosure. Thus, the research alone, if sufficiently detailed to be seen as a public disclosure under the law, is made a form of prior art.

Attorneys and legal professionals can use InnVenn just as inventors do. They can also use the same tools for legal research and publication search. This will be an invaluable tool in deciphering the portfolios of their clients and strategic acquisitions. The information added during the study of portfolios aids Loci by defining the network of business IP portfolios that was previously confidential and complex.

Trends in the Market

As technological development continues to accelerate, so should the IP industry. The IP landscape now is almost unrecognizable from what it was even a decade ago. Some companies, including Apple, Tesla and Google, have released an increasing number of free, open source applications, with hopes that the resulting innovation will release a wave of value. Other companies have become increasingly vigilant of protecting even the most minor IP possessions, trolling for even the most minor violations.

The USPTO has been feeling the pressure of a changing IP environment for years. With industries like crowdsourcing, machine learning, predictive analytics, and link analysis expanding with unprecedented speed the ability to keep pace is clearly falling short. It is unclear how regulation will shape these markets in the future, but many experts think that the “first to file” or the defunct “first to invent” systems will inevitably transition to “first to discover.” Others question the very viability of the patent system as we now know it. Loci has prepared for multiple regulation changes and has anticipated numerous scenarios which have been defined and addressed in its own patent. Loci has many close relationships with government officials in and around the USPTO and the government to learn from and assist on legislative direction.

Market Opportunities

In addition to domestic business and government trends, global innovation is also supporting Loci's growth. In particular, new technological trends like cryptocurrency, blockchain, machine learning, and artificial intelligence are making society more connected, data collection more relevant, and banking less necessary. These developments suggest that the global system of commerce is rapidly becoming prime for large scale disruption.

1. **Inventors and Entrepreneurs**

   Inventors and entrepreneurs can utilize Loci technology to avoid expensive attorney fees while conducting early research and quickly form a more appropriate opinion of the viability of their prospective patents. It takes only a single instance of prior art to destroy an inventor’s dreams. Typically, prior art and patentability searches cost between $2,000 to $100,000 which yield, at most, searches that are 70% comprehensive. It is simply not easy to form a relevance ranking on a patent with traditional search techniques. Inventors often go into debt to raise the funds necessary to traverse the patent process. Using InnVenn, inventors can discover applicable uses and connections to prior inventions, and find new applications of their inventions. Inventors will also benefit from the much quicker and safer alternative InnVenn provides in monetizing on their intellectual property.
2. **Intellectual Property Attorneys**

   Intellectual property attorneys are critical players in the Loci ecosystem and enhance the potential of Loci's platform. Using Loci’s quick and comprehensive search technology, they can save time and money usually required for the traditional, convoluted prior art and novelty searches. Intellectual property law firms and their networks have been a large majority of InnVenn’s early adopters. Intellectual property firms are also a key target group as they will be working with Loci as affiliates to help offer InnVenn to their clients. As their clients will now be able to use Loci both to complete their own prior art and novelty searches and to discover patentable ideas, law firms to pursue more high- margin litigation and prosecution business.
3. **Corporate Researchers and Analysts**

   Businesses all over the world waste substantial resources with failed technologies, internal inefficiencies, litigation, and delays in getting to market. As much as 70 percent of the funds allocated to R&D are routinely wasted though waste and inefficiency. Corporations will save billions of dollars wasted on ineffective R&D by using InnVenn to focus on and mapped voids with areas ripe for innovation they can focus on, the spaces between identified patents in the marketplace, known as “whitespace.” This will enable businesses to focus on development strategy instead of inefficiently duplicating research and potentially incurring the high costs of litigation. Furthermore, they will be empowered to expand and secure their IP portfolios by offering licenses to inventors

who have performed research and developed products in the specific areas into which they hope to expand.

4. **Investors**

   Investors have long desired to invest in products earlier and with less risk. Loci's proprietary analysis of the real-time competitive landscape, market disrupting technology discoveries, and valuations can help investors to make substantially more informed use of their funds. Investors will be able to efficiently allocate their resources to mapped out whitespace with significantly increased market success rates. It is a common statistic that 9 of every 10 businesses fail within the first year. This encourages investors either to remain risk averse, sticking with very low-risk models of proven sales and traction figures, or to seek the next big thing, the proverbial “unicorn.” These behaviors limit investment in incremental innovation, businesses in very promising, but perhaps not as highly profitable technologies (think “Moneyball” with inventions instead of baseball).

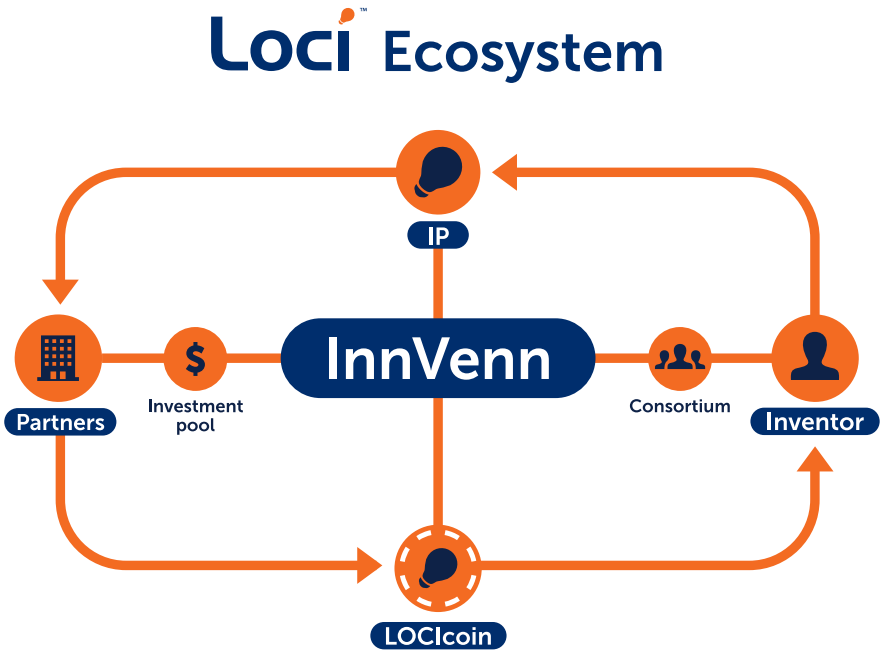
The Exchange in Motion

Loci's ecosystem is designed to connect multiple user bases and LOCIcoin is the integral utility token for the buying and selling of intellectual property.

Placing Bids on IP with LOCIcoin

InnVenn allows platform users the ability to place a bid on any intellectual property found within InnVenn with LOCIcoin tokens. This includes inventions claimed and native to the InnVenn ecosystem as well as existing active patents. Users are prompted to place the maximum bid for an intellectual property item of interest. For bids placed on inventions staked on the platform, Loci will analyze the value of the IP and reach out to the invention owner with the valuation at or below the maximum bid. If accepted, Loci will purchase the invention on behalf of the bidder and transfer ownership to the successful bidder. All of which is done anonymously as the owners of the inventions and buyers are kept private. For existing patents, Loci will then reach out to the owner or agent on behalf of the

bidder and connect the two parties if there is mutual interest. To be clear, Loci will not negotiate and broker this kind of deal as Loci is not a patent agent.



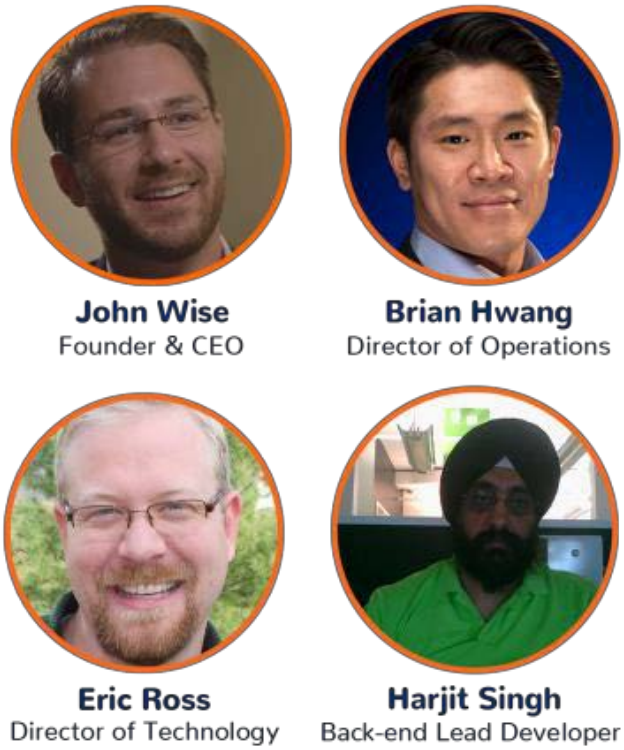
Consortiums & Investment Pools

Consortiums are a grouping of inventions or ideas that may be established by the collaboration and crowdsourcing efforts. The actual inventions or ideas may or may not be directly related. Loci's technology and expertise may also help create potential consortiums by recognizing the connections between disparate fields of interest to create a previously undiscovered technology and product portfolio. For example, if someone created a handheld medical scanner in 2005, then the smartphone is invented in 2007, our algorithms could realize that there is an opportunity to create a smartphone that has a medical scanner built into it for the medical market.

Investment pools provide investment funds to Consortiums. An investment pool is created to contact the inventors, as consortiums, for investing or licensing ideas to other companies. Investment pools are focused, interested in specific startup types or application of technologies. Investment pools could allow various types of licensing deals to be done with consortiums and creates two major effects: First, companies are able to invest in inventions that may have been previously overlooked, significantly reducing corporate R&D costs. Second, inventors can begin to

profit from their inventions more quickly without having to raise (or risk) capital to further develop their ideas before they can be sold or licensed. It should be noted that regulation will determine the exact extent and structure to which investment pools may operate. Currently, Loci has been approved to sell investment pools in totality at a “market speculated price.

Leadership



John Wise, CEO, is the patent industry subject matter expert (SME). He has been dedicated to bringing simplicity and transparency to the patent industry for years. He has worked on the patent for “System and Method for Fuzzy Concept Mapping, Voting Ontology Crowd Sourcing, and Technology Prediction.” The original idea for the system came back in 2008, and he managed to file the application four years later. John imagined the capability for blockchain, without knowing the technology at the time. Before Satoshi Nakamoto's white paper, John had imagined a process for a decentralized network and consensus, where democratized suggestions enabled investment pools to be created in a fluid and collaborative nature. He has committed 9 years to revolutionizing the patent industry, demonstrated by his patent fuzzy concept mapping.

Eric Ross, Director of Technology, was a software developer for more than 10 years and worked for a wide variety of companies and utilized various technologies as a consultant. He then moved into management and now specializes in managing technical people and projects, although he cannot help but continue to code. He has a B.S. in applied physics/computers from Grove City College. He brings considerable experience with development and a technical mindset for implementation to the table and is key to our ability to execute the vision of the company.

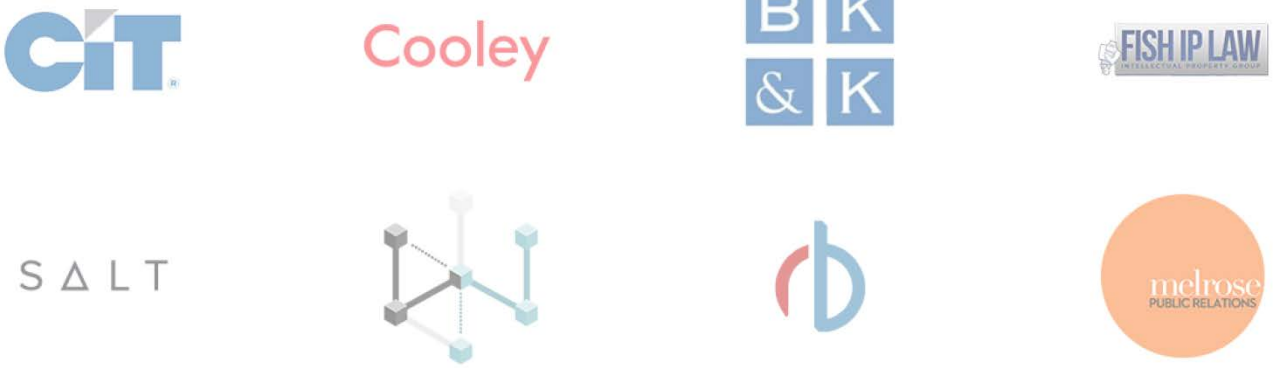
Leadership

Brian Hwang, the Director of Operations, brings a purpose-driven leadership to the team and is a huge advocate of the company's mission to empower inventors and innovators. Brian has a diverse experience and expertise in the areas of strategic partnerships, business development, and operations to the team. He is an alumnus of University of Illinois at Urbana-Champaign with dual B.S. degrees in Finance and Accountancy. He has worked in a wide range of large companies and industries including Johnson & Johnson, GE Capital, and Ernst & Young. He also oversaw the development and growth of small businesses and startups.

Harjit Singh is the Lead Backend Developer. Harjit brings his skills and expertise in machine learning to the Loci team. He uses Java, spark, and scala. He currently leads a team of three backend developers.

In addition to the management team, there are very strong technical and support personnel in place with Loci. There is currently a total of four backend developers, five frontend developers, 1 QA analyst, 1 web designer, 2 web programmers as well as several other developers who have been a part of the project over the years. Collectively these developers bring their expertise in machine learning, blockchain, predictive analytics, web design, web programming and software architecture. On the operations and administrative side, the team is also very strong and has been able to function at a high level to support the technical side and grow opportunities with affiliates and other partner companies. Loci has also many accomplished advisors that help with the overall business strategy and partner companies including IP law firms and inventor organizations.

Loci Partners



Loci Economic Model

Loci's economic model can be referenced in the Economic Model whitepaper for more details. However, there are a few key points to mention here. The foundation's reserved tokens are to be used primarily to acquire IP in the InnVenn platform or bounties. This is a crucial component but can be capital intensive. The tokens not in circulation **must** exist to underpin the value of the currency in circulation with the IP assets. If the balance of currency in/out of circulation does not maintain an equilibrium at full scale, there will be a risk of over/under inflation. To protect against this, Loci has built in several redundancies to the economic structure.

1. The model is akin to a body of water (currency in circulation), and a cloud (LOCIcoin out of circulation). As water evaporates out of the body when LOCIcoin tokens are purchased from the markets by those seeking to acquire IP with them, it saturates the cloud until it can hold no more. This threshold for Loci is half of total supply of LOCIcoin. Loci will NEVER be able to hold on to more than half of the LOCIcoin supply for long. The foundation will also never be able to sell tokens in the secondary markets. In the event that transactional volumes are low but prices are high on the asset side, Loci could theoretically have an excess beyond half of the total LOCIcoin supply. When this occurs, Loci will "airdop" tokens to inventors that have current staked inventions on the blockchain. This is similar to a "proof-of-stake" dividend structure, whereas an inventor with 10 inventions staked on the Loci blockchain that have not sold, will receive ten times the LOCIcoin compared to an inventor with 1 invention. This is intended to reward or refund inventors that have committed inventions but have not sold them. Additionally, it incentivizes people to submit more inventions to the network. This is essentially "Idea Crypto-Mining".

2. Loci will create a non-profit organization for the sole purpose of funding research and development. This organization's operating structure will restrict it to only donations of tokens with the intent of introducing IP assets to the exchange from people who couldn't originally afford to contribute. This organization serves as a redundancy on the asset side of the

exchange. In times of stagnation, it will continue the flow of assets and transactions. The organization will be managed by a Loci board member as to additionally maintain a fiduciary responsibility to the marketplace. This mechanism will be built into the organization's smart contract and legal contract.

3. John Wise, Loci's CEO will receive 2.5M of the LOCIcoin created. However, he will be restricted with a sale cap of only 500,000 LOCIcoin a year. Because John is the President/Chairman of the Board, he carries a fiduciary responsibility to stabilize the markets on the currency side. Should the majority of currency in circulation be held up in asset transactions, he will be contractually bound to liquidate his holdings and relieve the gridlock. This will be built into his smart contract and legal contract.

Conclusion

Loci's vision is to help create a paradigm shift in how ideas are valued. This vision did not just happen overnight. Loci's own granted patent dates back almost a decade since it was first theorized and lays the technological foundation and roadmap of the InnVenn platform. Loci's development team has worked hard over the years to create what is already a viable, working product. The patent search and visualization tool has been proven to significantly reduce the time and frustrations of the traditionally convoluted patent search process.

Loci envisions a future where innovation is democratized. Individual and small teams of inspired inventors should have equal access to the discovery of new innovation and its economic benefits as any large corporation. The current global invention system is risky, chaotic, expensive, and limits the progress and speed of innovation.

Loci has experienced the flaws of this system firsthand while obtaining its own granted patent. Loci's InnVenn platform will revolutionize the intellectual property search and claiming process while drastically cutting down the prohibitive costs for inventors as well as making the jobs of intellectual property researchers, attorneys, and developers far simpler. The billions of dollars wasted each year on unsuccessful R&D can be reinvested into further innovation. With the application of blockchain technology to our platform, we can assure that anyone can defend their rights to their intellectual property. The Loci community will speed up the emergence of new technologies and can empower a new generation of inventors.

Thinking Better. Together.

References

[1] "Patents as Signals for Startup Financing" Annamaria Conti, Jerry Thursby, and Marie C. Thursby (2013). NBER Working Paper No. 19191. "Patents as Quality Signals? The implications for financing constraints on R&D" Dirk Czarnitzki, Bronwyn H. Hall, and Hanna Hottenrott (2014). NBER Working Paper No. 19947

[2] "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey" Stuart J.H. Graham, Robert P. Merges, Pamela Samuelson, and Ted. M Sichelman. (2009)

[3] "U.S. Patent Statistics Chart Calendar Years 1963 - 2015." U.S. Patent Statistics Summary Table, Calendar Years 1963 to 2014, 06/2015 update. Available at https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm

[4] "35 U.S. Code Part I - UNITED STATES PATENT AND TRADEMARK OFFICE." LII / Legal Information Institute. Available at http://www.law.cornell.edu/uscode/html/uscode35/us...

[5] WIPO. IP Facts and Figures. Available at http://www.wipo.int/pressroom/en/articles/2016/article_0017.html

[6] "How much does a patent cost? | Richards Patent Law Firm." Richards Patent Law. Available at https://www.richardspatentlaw.com/faq/how-much-does-a-patent-cost/.

[7] "2016 PWC Patent Litigation Study"