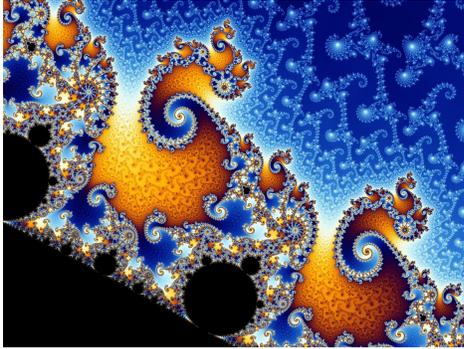

The Distinction of Binary vs. Digital and the Impact of '867



Our Current State of Tangles

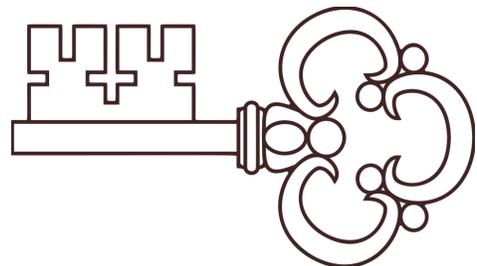
The distinction of binary vs. digital began back in the 1980s when the electronic computing community was discovering how to render the analog world into a form which electronic circuitry could interpret and reconstruct. The new technology made it easy to use electricity to store and manipulate the visual analog world. It wasn't an exact representation, but a mathematical approximation that appeared to be the same as the original. A clever and simple method of storage was devised using a series of electro-mechanical signals, often referred to as digital storage. Only two digits are used to represent a complex method of using on and off states in a binary model. For simplicity referred to as zero and one (0 & 1).

How can we encourage creative efforts in the electronic universe and still offer economic protection?

In capturing information that had been executed with analog means into a mathematical approximation, a new transformation occurred that made the repeated copying of the original very easy and inexpensive. Now it was much easier for the author or anyone else to change, leaving almost no trace behind of the changes made. In many ways, this clouds the authenticity of any

author. Understanding when that information was originally stored and who did the original work was not in the purview of the original creators of this mathematical method. For that matter, it is still not widely considered an important aspect of creation. It is as if we are asking everyone to create paintings and not sign their work.

There has been a lot of work to create unique identification schemes to control individual access to electronic systems. This has been done using complex mathematics known as cryptography, but that work alone still does not help an author adequately protect their work in this ephemeral world of 1's and 0's. We seem to have created a new kind of canvas used by a host of people who use that canvas to paint wonderful ideas on. Yet, nobody can be sure of who is doing the creating or when the act of creation happened.



The old analog world left physical evidence behind every act of creation. It was possible to know when and how the act was done, and many times by deduction, who did the work. But in the new electronic world, hardly anything is left behind that can be used to trace who did something and what they did in a meaningful way. The cryptography world would want us to use their unique keys to be the new electronic signature that positively identifies who did something. But that becomes only another artificial artifact encapsulating the original work. We still do not have an equivalent positive representation in the electronic world that we have in the physical world for positive authorship. Can we really know the person really is the author who is applying the signature? What we need now is a way to easily authenticate the binary authorship of work done within this new electronic world.

Very little is created in today's world that did not originate in the electronic universe or is very quickly captured in the form of pictures or sound or both. The music and photography worlds are perfect examples of this transformation from analog to electronic binary artifacts. The human ear can distinguish between the difference between the original analog and the electronic binary copy. This difference is enough where we pay a premium to experience the analog in person over the easily repeated electronic copy, by the simple act of going to a live performance concert or theater production.

In both instances, the live act of performance creates the authentic act of creation at that moment, and the creator is being compensated. But in the electronic world, it is very easy for the author to have no way to extract a means of compensation for their work. In fact, it can be easily stolen by others without knowing the theft happened. How can we encourage creative efforts in the electronic universe and still offer authors economic protection? This is the question that has been asked over and over again since the dawn of the electronic computing age, especially since the mass adoption of the technology beginning around the advent of the new Millennium.

Untangling the Yarn

Fortunately, there are some new ways to use old ideas to create a solution for the new electronic universe of creatives. Using some old ideas with a new twist, we can begin to see some new ways of looking at the creative process, and help creatives capture the value that belongs to them.



Part of the key is the science of cryptography married with some new ideas of how to store ideas in electronic form. While all of this still relies on the basic signals of on and off or 0's and 1's, the difference is how we create the patterns of signals so they can be uniquely identified. The result is what we now know as a distributed ledger.

Something New from Something Old



If a group of people all agree something was created by a person at a certain time, then by agreement it is held to be true. If we knew of a mechanism to make sure the record of that agreement is maintained, then at any time in the future what happened now can be relied on in the future. In many ways, this is the same premise historians use to verify if something in the past happened. If they can find enough evidence that matches closely, then they can infer something did happen. The only

difference in our example is there is an intentional act of agreement happening now, to make sure others in the future know the acts today were authentic, rather than having to find the agreement later.

This only helps with one part of the problem we identified, the WHO. We still have the problem of protecting the WHAT. The WHAT is being created as a series of on and off signals stored as the digits 0 and 1. Making sure the original pattern is maintained over time and as the original author intended is the problem at hand. If we had a secure container that would maintain the original work in a way that it could not be manipulated without the author knowing what was changed and by whom, then we could positively protect the electronic content. This would represent the secure container needed to protect the work of a creative person.

This information gives us an authentic proof of **WHO** created **WHAT** and **WHEN** it was done. We call this new idea a distributed ledger...

Additionally, if each time the information is accessed there is agreement about who read or modified the work, and what that modification was made, then a chain of custody gets created over time that can be read. Now everyone knows WHAT and the WHO and the WHEN about anything in this container. This information gives us an authentic proof of WHO created WHAT and WHEN it was done. We call this new idea a distributed ledger because multiple copies of the records are kept and if not all the copies agree where the inconsistencies exist is considered incorrect and dropped from the record of truth.

A New Source of Property Value

We assert this is the basis of individuals to own the rights to the work they create. It ties the act of creation directly to the person as an extension of the individual. These are the “inalienable rights” referred to in the *Declaration of Independence* of The United States. These rights were first demonstrated in the *Magna Carta* and today can be defended in any court of law where the rule of law exists. This right respects the identity of a person and their creative rights as a unique person and their work product is theirs by right of creation. In today’s world of knowledge and information as a product of work, it becomes the artifact of the work and becomes property that can be controlled by the unique person. They have the right to sell or give that work product to others in any lawful manner.

The New Intangible

This means this ephemeral existence of information and knowledge can be positively identified and controlled without explicitly revealing all the knowledge of the idea. This means it can be economically controlled. Which allows us to make it as tradable as a shoe or a coat or a chicken. The idea takes on all the commercial attributes of tangible property. The electronic artifact of the thought is what becomes the physical evidence of the ephemeral human thought that has value when acted upon. This is the basis of the Uniform Trade Secrets Act. Taking thoughts and treating them as intangible property with all the rights and privileges attributed to other intangible property such as trademarks, copyright, and patents. Importantly, the law does not require a creator to divulge their knowledge to the general public to have legal protection as in a patent or copyright. Now the mere agreement between parties of a fact of creation by a person or persons in time is enough to create a legal protective mechanism for an idea.

Who is the Owner?

Now we have to untangle the problems we have created about ownership of ideas. If an employee works for someone that pays them for their time to create a specific work product in exchange for some form of compensation, then what they create belongs to the



person giving the compensation. We call this a work for hire. The product belongs to the employer, the one paying the compensation for the labor. But the knowledge of how to create that work may belong to the creator, not the employer. If the worker was trained by the employer, then all their work is derived from the knowledge of the employer. This is the model of the Master and Apprentice started by the Guilds in the Middle Ages. Until the Apprentice becomes a Master in their own right showing they can create something original of their own, all their

work remains the property of their Master. Afterward, they earn the right to create their own original work. For this reason, the guilds were created by Masters to protect the larger body of knowledge and make sure it was continued.

In today's knowledge economy, how thoughts turn into new ideas, is where real economic value is created. Just as the old craft apprentice gained experience with their materials and methods, the new knowledge worker gains experience in using the tools and methods of the new economy. They create new work from old knowledge. As in the craft guilds of the past, workers today should have ownership in their original work and receive full ownership and commercial rights. The juxtaposition of employment work and ideas should not be subjected to a feudal system of possession, just because of the work association which today is often required just as a right to work.

Employment agreements should go back to the Master and Apprentice principles where the Apprentice learned from the Master but eventually matured to become an autonomous Master in their own right, owning and controlling the work product they created. This means in the future employers will hire many workers with their own collection of intellectual property. Employers would then pay for the use of that property as they use it. Rather than today's outright piracy based only on an employment association. Employees retain control of their intangible property rights, much as the organized labor movement of the past century gave workers the rights to receive reasonable compensation for their physical labor. Under this new economy, not only can a worker receive payment from a single employer, but could make their ideas available to as many as were willing to pay for the access to their knowledge.

New electronic control techniques can meter out access to as small a portion as needed, even as small as a few seconds of a digital audio track used in a marketing commercial or an algorithm used in a software solution to pay a bill or purchase a product. Now employees can receive payments for commercial transactions just like their corporate employers. The same mechanisms are available to everyone and return some of the earning power to labor that has been concentrated in corporations for over 100 years. A new kind of intellectual property market will materialize for ideas just like it does for products.

Introducing a Standard for the New Economy

All of the basic law for the future state is already here, the problem we have is implementing the law in a recognizable standard. We are proposing a new Open Source standard so every business, regardless of size, can take advantage of the new '867 standard. The '867 Foundation was formed to be both the business compliance and standards organization that supports the Open Source implementation of the original framework. Since the time of the abandonment of that original effort, other appropriate technologies have been introduced that make implementation of the '867 standards

possible for everyone, not just the rich and powerful who did these transactions in the past as singular efforts to protect their business assets.

The new standard is an implementation of the old law in our new world. As previously asserted, the courts have affirmed property rights law still apply to ideas as much as to physical goods. The '867 Foundation standards of practice use new automation technologies to implement a recognized ownership, chain of custody for the property, then secure rights management for reading and user access, then automatic payment processing under a multi-party agreement that has a built-in dispute resolution mechanism.

This allows for intellectual property to become intellectual capital because it creates directly attributable business value which belongs on the balance sheet of a company. This is a natural progression of the idea that humans are Analog, and Binary Computers keep Digital information (A, B, C, D). The '867 Foundation manages the use of the protocol found in the original patent application and made available as an Open Source use agreement. Software that conforms to the published standards will be recognized by the '867 Foundation. Industry professionals who adhere to the standards of the '867 Foundation are invited to be subscribing members of the Foundation.

What is standing in your way? Only your willingness to adopt the framework and subscribe to support the '867 Foundation, and for your own best practice use an industry professional trained in the proper application of the '867 protocols. The time is right, the technology is ready, all that is missing is your willingness to take your next step and adopt '867.

When you embrace '867 as a framework for intellectual property protection, you begin a process that moves you toward creating more real value for your organization faster and for less cost than patents, and with more permanence than trademarks or copyright.

Visit www.867ip.org to learn more about how you can start leveraging your Intellectual Property as Intellectual Capital today.

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Authorship, Disclosure and Acknowledgements

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