

# **The Next Paradigm of Economic Development; Part 1**

How Social Media Will Induce an Innovation  
Economy



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## **Table of Contents:**

- i. Preface**
- ii. Introduction**
- iii. A Simple Application of Innovation Economics:**

## **Part 1; the Integration and Capitalization of Knowledge**

- 1. The Creation of Wealth**
- 2. Currency**
- 3. Knowledge Inventory**
- 4. Institutions**
- 5. The Entrepreneurs**
- 6. The Business Plan**
- 7. Monetization of Knowledge Assets**

## **Part 2: Disruptions (TBD)**

- 8. The First Application revisited**
- 9. A Business Model for New Enterprise Creation**
- 10. The Amazon.com Taxonomy for knowledge Inventory**
- 11. The Education System**
- 12. Human Resources**
- 13. \***
- 14. \***

# Preface

In order to specify The Next Paradigm of Economic Development we did something very simple, straightforward, and quite typical of the innovation process touted by countless innovation gurus. We took one problem and fit it into the solution for a similar problem, turned the crank, and out pops the new solution.

The first problem is the lack of an integrated innovation system in the US economy. So, we took a familiar position credited to Joseph Schumpeter and posited that innovation is the source of wealth creation, i.e., money. Therefore, the financial system would be our model for the innovation system. Next, we broke them both into parts and matched, as best as possible, the phenomenon of the Social Media with the phenomenon of the Wall Street finance.

The purpose of this exercise is not to incite revolution and bring down the bad guys or dictate massive change to a system upon which we all rely. The purpose, in fact, is multi-fold:

- It provides us a framework for the “new normal”
- It accommodates current disruptions
- It identifies future disruptions
- It includes everyone

**The disruptions will be many.** Some of these we already see such as the demise of print journalism, the chaos in the advertising industry, and the reformation of government.

What is not yet obvious is that the advertising industry will be wiped out. The higher education system will be altered beyond anyone’s expectations becoming segmented by infinite combinations of sub-classification rather than ‘Degrees’. The resume system for job search will be eliminated forever by a percentile search engine. The patent system will become a relic of the industrial revolution as social contracts reward, preserve, and distribute intellectual property far more efficiently. The very existence of the corporate fiction will be questioned as the functions of failed institutions are increasingly being performed in social media space, communities, and machine enabled democracy.

This is not to say that corporations will disappear. The smart ones will integrate. Amazon.com will integrate with the education, the public library system as the taxonomy for the knowledge inventory. Starbucks will provide community meeting support for entrepreneurs. Google will build a percentile search function and show people how to use it. Innovation will be crowd sourced with a new financial instrument called the Innovation Bond.

Finally, the mother of all integrations; Social Priorities will drive Wall Street priorities. That is the day, I believe, everyone is looking forward to.

# Introduction

Today we have significant financial and environmental problems. We are also tremendously fortunate that Social Media will mature precisely when we need it the most.

This thesis describes a structure for the innovation economy where human knowledge will become tangible outside the construct of the traditional corporation and inside social networks. The article concludes with the creation of a financial instrument built on a platform of social media that funds grass-roots innovation. It is intended to jump-start entrepreneurs who will then perfect the system to suit the emerging market.

The current [financial system](#) has reached the limits of its effectiveness. Interest on [debt](#) has exceeded the system's ability to pay it off. But debt is simply a promissory note on future productivity. The only sustainable way to increase [productivity](#) is to [innovate](#). This means that in order to continue printing money, we must increase productivity at the same or greater rate. With a national debt in excess of 10 Trillion dollars and a total entitlement obligation nearing 50 Trillion, we must extract an extraordinary increase in our current innovation capabilities.

There are three relatively simple web applications specified here which if deployed to social networks will allow human knowledge to become [tangible](#) outside of the organizational construct of the traditional corporation. The result will be a comprehensive, diversified, and integrated innovation system locked in a virtuous circle with our financial system. Admittedly idealistic, the calculus demonstrated herein also provides great insight to the potential opportunities and disruptions emerging in the "new normal" of the post-financial crisis environment and social media revolution.

## **These applications are as follows:**

1. The knowledge Inventory
2. The Percentile Search Engine
3. The Innovation Bank

From these three applications, millions of new business models will be created and many existing business will be made more efficient.

## **Of the same Species:**

Debt is a promise to repay current money with future productivity. Innovation is also a promise to repay current money with future productivity. As such, debt currency and a new innovation currency would be highly convertible financial instruments. The preceding example demonstrates how a currency swap between two such instruments could be enabled by social media as simple as a social agreement.

## **A Simple Application of Innovation Economics:**

Mothers of small children spend over 300 Billion dollars annually on clothing, toys, education, furniture, child care, food, communications, recreation, and safety products.

Today, there are 35.3 million Moms online with children under 18 at home, and 36.9 million projected by 2010

- 88% of moms online say they rely on the web for parental guidance, advice, and ideas on raising their children
- 90% go to the Internet before making a major buying decision
- 36.9 million women – 46% of them with children at home -- either write or read blogs
- About a quarter of women surveyed say that as a result of blogging, they watch less TV, read fewer magazines and fewer newspapers.

### **The Old Paradigm**

The old paradigm is to spend several billion dollars on the production and distribution of advertising with competitive impressions to hopefully reach this market. Everyone else gets spammed

### **The New Paradigm introduces a simple new financial instrument:**

All producers pool a large portion their advertising budget into a bucket of cash. Money is distributed through a debit card directly to top 10% of moms who are most active in social media either as a blogger, aggregator, or maven.

### **Results:**

- Bad Products are blogged down and good products are blogged up
- SAHM can earn a living doing what she'll do anyway – organizing their community.
- Social networks of Moms transmit the corporate message across their galaxy
- Corporations support hard-hit communities instead of ad agencies
- Deeper penetration, increased loyalty, and accurate feedback is priceless
- Corporation received R&D and business intelligence
- Unleashes millions of innovative entrepreneurs in American Communities
- 100% of ad spend reaches target market (versus 5% industry average)

**Analysis:** Innovation is the science of change and economics is the science of incentives. This example introduces a simple new financial instrument built on social media across a vastly important vertical. The incentive will empower both the community of consumers and the community of producers around social priorities as a means to meeting Wall Street priorities.

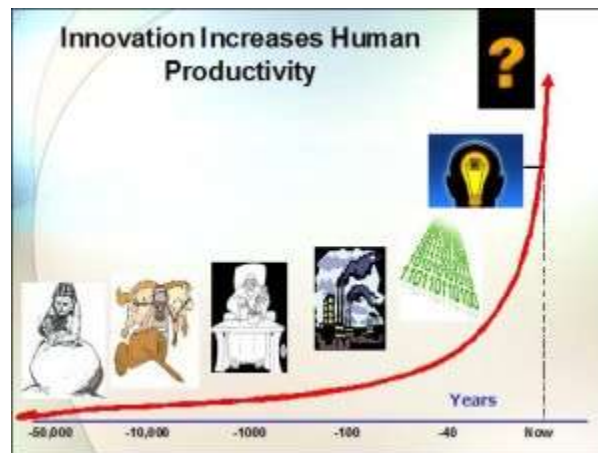
# 1: The Creation of Wealth

**Technological change must always precede economic growth. We are going about the process of Globalization as if economic growth can precede technological change. This is the singular flaw of market capitalism that needs to be reversed.**

The Innovation Economy will not be delivered by corporations, Government or Academia. There no single person, country, ideology, or philosophy that can meet the challenges of the future alone – everyone will be required to participate because everyone has a stake in the outcome.

The Ingenesist Project outlines a very optimistic future. The problems ahead have a relatively simple solution that can be implemented today using existing tools and infrastructure. These tools acting in the right system can have profound impact on future economic growth and the sustainability of our resources.

**The Ingenesist Project identifies a core problem:**



This is the human productivity chart. Every time humans invent better ways of doing things, they become more productive. Where more people are more productive, the economy gets bigger. This is a fact.

About 50,000 years ago, humans began to make tools using tools and innovation increasing exponentially. Tools made hunting and gathering easier. As farming developed so did the emergence of cities. When people could produce more than they needed, they had time to think about things like philosophy, art, astronomy, written language. This led to a scientific revolution that continued to make new observations about the world. These observations were applied to systems that made people still more productive. The industrial revolution followed. Industry produced a lot of information. The ability to process that information using computers led to the information revolution. Soon people

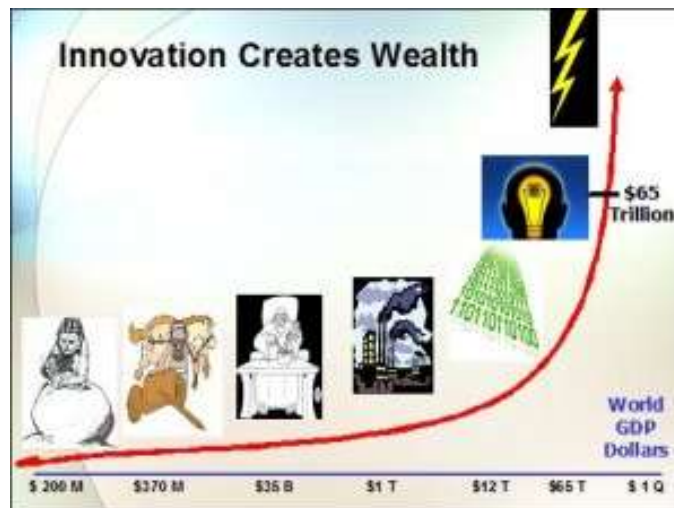
began seeing new trends among the information, facts, and data. This ability largely defines the knowledge economy that we see today.

**Obviously, this is not the end of human economic development. Something else will happen after the knowledge economy. This next economic paradigm is not easy to see. Many people have a sense that civilization is changing – it must change.**

Looking at the productivity chart, we notice a few interesting trends.

- Every level of economic development was derived from the prior level of economic development.
- That transformation was achieved by integrating the tools that were developed during the prior economy.

**The two greatest tools in the knowledge economy are the Internet and Social Media. The Innovation Economy must integrate these tools.**

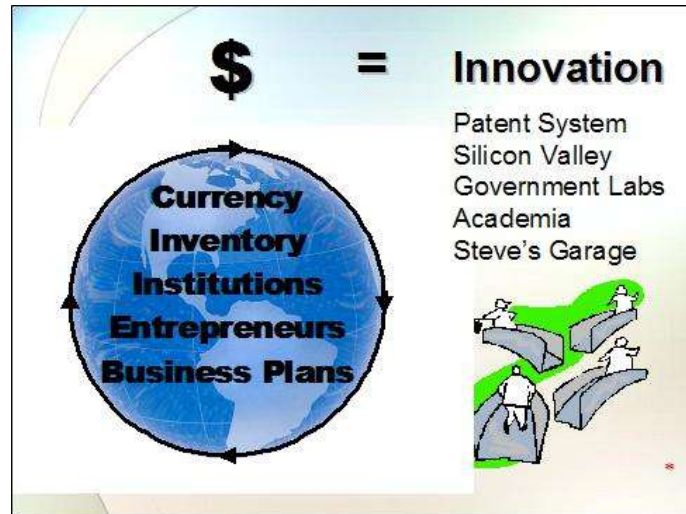


Now, this is the Human Gross Domestic Product Chart. This is obviously very similar to the productivity chart except that the bottom axis is labeled with Global Gross Domestic Product over the same time period. The global GDP of 50,000 years ago was about 200 Million in current dollars.

Today, the Global GDP is about 65 Trillion Dollars.

If this curve was to continue, and it can, the next level of economic development could easily meet or exceed the current debt obligation. However, this cannot happen without some adjustments to the current system:

**The only way to create more money is to increase human productivity and the only way to increase human productivity is to Innovate. This is the guiding principle of an Innovation Economist.**



The problem is that economic growth, with “money” as the scorecard, lives in a complex, global and highly integrated system where billions of dollars circle the globe daily at the speed of light at the click of a mouse. There is a system that integrates currency, accounting, vetting institutions, entrepreneurs, and business plans. As a system, if one of these components fails, the whole system fails – much as we have today.

By contrast, innovation lives in the patent system which is extremely slow and prohibitively expensive. Innovation certainly happens in places like Silicon Valley, Government Laboratories, Universities, and of course the proverbial “Steve’s Garage”; but these sources are not integrated and they do not behave like a system – except at the mercy of a vulnerable financial system.

**Innovation is market driven. Markets should be innovation driven.**

It is clear; there is no Innovation system to match the financial system in speed, efficiency, and integration. The objective of the Ingenesist Project is to specify an innovation system that integrates the tools of the knowledge economy into a structure that mimics the financial system. If it looks like money, it will behave like money and people will trade it.

The Financial system has at least 5 essential components that interact with each other as a system. If any of these pieces are missing or corrupted, the market will falter. All 5 of these elements must be operational and integrated in order for a market to be efficient.

There is a scorecard that everyone agrees to use as currency. There must be an inventory for use as the accounting system. There must be institutions that act like referees who can keep the game fair so people don’t get ripped off. There must be Entrepreneurs to do the fuzzy math, interact with the system, fill in the gray areas, and take on risk, and create jobs. The business plan is the blueprint holds the system together.

**If you give people a game they can win, they will play it all day long. In this regard, human behavior is highly predictable. If human behavior is predictable, it can be securitized in a financial instrument.**

In the next several articles, we will go through each of the 5 elements and develop the corresponding knowledge system that will be integrated as we create the structure of the Innovation Economy.

## **2: Currency**



In part 1, we determined that money represents human productivity and the only way to sustainably create wealth was to innovate.

Then we observed that money lives in a complex and integrated system while Innovation does not. We determined that the problem was that innovation is essentially isolated, random, non-integrated and subservient to the financial system.

This module discusses the currency of the innovation economy.

**A Currency is anything that serves as a medium of exchange, a stored value, and a standard of value.**

We know that money is a medium of exchange – it does not represent gold or silver or even oil, it represents human productivity. Money, and all financial instruments for that matter, store value.

When we look into society, especially computer enabled society, everywhere people are trading information and ideas with each other at an incredible rate. All of this information adds up to something because obviously things get built and stuff rolls off the assembly lines. People act on information obtained from each other to produce things.

**The currency of trade for the next economic paradigm must represent this “stock exchange”**

Intuitively we know that information, knowledge and innovation are profoundly related to each other. In fact, if you don't have one, you can't have the other two. Our currency of trade must represent all three; information, knowledge, and innovation. Therefore, we need to redefine these terms in a manner that relates them.

First we must define ‘information’. That's easy, information is facts and data.

Next we need to define ‘knowledge’ in terms of information: Any good teacher can tell you that information must be introduced in a certain sequence and at a certain speed in order for the student to learn. Knowledge is therefore proportional to the rate of change of information.

**Currency of Trade:**

- Information = facts and data
- Knowledge : The rate of change of Information.
- Innovation : The rate of change of knowledge.

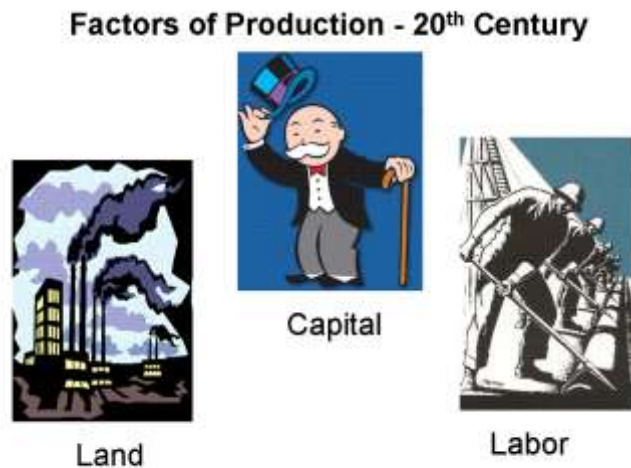
For the purposes of this analysis, we will use the following definition: Innovation is defined by the rate of change of knowledge where knowledge is defined by the rate of change of information. **For example;** everyone has had an ‘Ah-Ha!’ moment during a brain storming session, or after making a mistake, or after witnessing a profound event. The AH-HA moment represents a very high rate of change in our knowledge that occurs in a very short period of time.

**According to this definition, every idea, conversation, dream, design, sketch, or discovery experienced and shared between two or more people is an innovation.**

Math students can see that this definition sets up a differential equation that we can use to model the innovation system computationally – something that cannot be done with the current definitions.

### Now let's look at the “economic outcome” part

The factors of production for the industrial economy are land labor and capital. Entrepreneurs allocate these three factors in different combination in the formation and growth of corporations. If any of these factors of production are missing, dysfunctional, or corrupted - the corporation stops producing.



We have learned that in the knowledge economy, the location of knowledge work is highly mobile – so “**Land**” does not have the same significance for making things as it did 100 years ago.

What about **labor**? Knowledge workers analyze situations, manage many variables, and create unique solutions. They do not really produce identical knowledge pieces like a machine operator or a production worker. Everything they see and do becomes part of their relevant knowledge set: 24/7/365. The idea of an 8 hour day and pay-by-the-hour are no longer relevant.

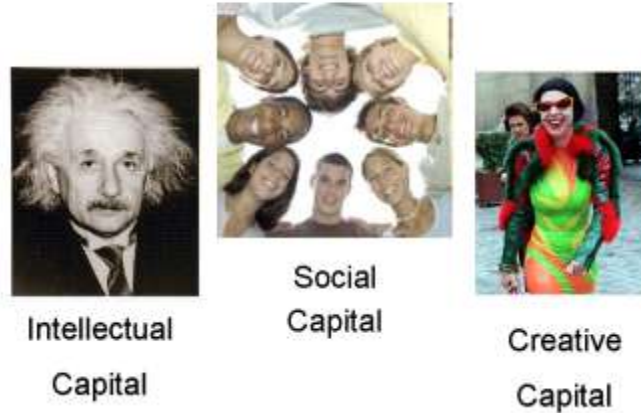
**Capital** is money needed to build future structures, buy machines and to pay wages. Today, money provides access to information. The current economic meltdown demonstrates that where the information is corrupted, the money is corrupted – and so becomes everything connected to the money.

We now see that many old economic principles do not work quite as well in the new economies. Yet, the Land, Labor, and Capital theory is still the foundation of much of today's corporate, academic, government, financial, and social thinking.

Using our definition for innovation, we can see that the innovation economy will emerge from the rate of change of the knowledge economy. Today we are witnessing an astonishing growth in social media and a breakdown of traditional media for the dissemination of information.

**The factors of production for the new currency are Intellectual Capital, Social Capital, and Creative Capital.**

### Factors of Production – 21<sup>st</sup> Century



The Intellectual Capital Model , (Jane Jacobs) is also called Human Capital – and suggests that concentrations of educated and motivated people attract investors to employ them and invest in the communities where they reside. This investment attracts other intelligent people who in turn attract more investment thereby creating a cycle of economic growth

The Social Capital Model, (Dr. Robert Putnam and Jane Jacobs), suggests that people acting in communities can create better solutions, greater accountability, and more economic growth than management, governments, or bureaucracy can induce on their own. Examples of Social Capital include Civil Rights Movement, community watch organizations, Democratic Government, Social Networking, and notably, recent political changes events.

The Creative Capital model, (Dr. Richard Florida), suggests that engineers and scientists think more like artists and musicians than like production workers – their ideas come 24/7/365 – and that an environment of tolerance, diversity, and openness promotes creative output.

**A Currency is anything that serves as a medium of exchange, a stored value, and a standard of value.**

In the current financial economy, the currency is a dollar. The rate of change of the currency is called appreciation, depreciation, or “interest”. The rate of change of interest

is the growth rate or compounding. These are very familiar conditions in finance and the basis for a company's stock price.

In the innovation economy, information is the currency. Knowledge is the rate of change of information, and innovation is the rate of change of knowledge.

**This will become a very familiar and useful relationship in the innovation economy.**

For example, innovation is difficult to measure directly. However, we can measure the rate of change of knowledge as a proxy for innovation. It is difficult to measure knowledge. However, we can measure the rate of change of information as a proxy for knowledge.

**In finance and calculus, these are called derivatives.**

### 3: Knowledge Inventory



Welcome back to the New Economic Paradigm Series. The objective is to develop an innovation system that emulates the financial system. In order to do this, we look for the social component that could best duplicate the function of the closest corresponding financial system component.

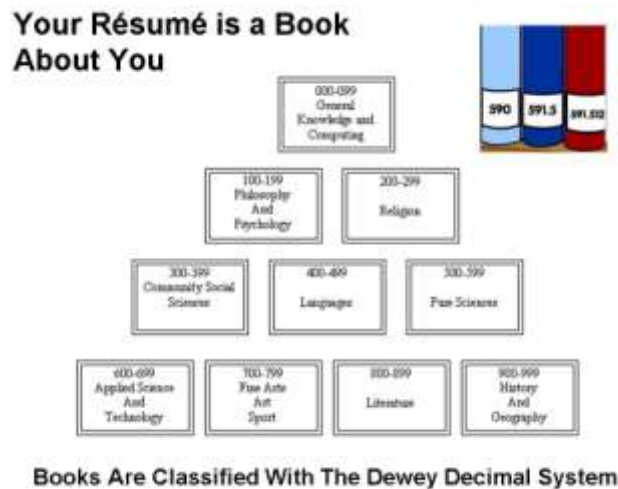
**Chapter 2 discussed the currency of trade. Chapter 3 will discuss the inventory of knowledge assets.**

Most companies have an inventory of every nut, bolt, rivet, or panel that they need to build something tangible. In innovation economy, we will need to have an inventory to

assemble knowledge assets so that we can build something tangible and support the currency.

**Your resume is like a book about you. Conversely, every book that you have read has become part of your knowledge inventory.**

Every experience you have had, every conversation you have participated in, every new idea that tried, successful or failed, is part of your knowledge inventory. The things that you like to do, things that you do not like to do, and things that you do not know are part of this inventory and the way it is organized in your consciousness.



The Dewey Decimal System is a way to catalog information in books. Keep in mind that The Dewey System is archaic; however, it does provide us with some key insights:

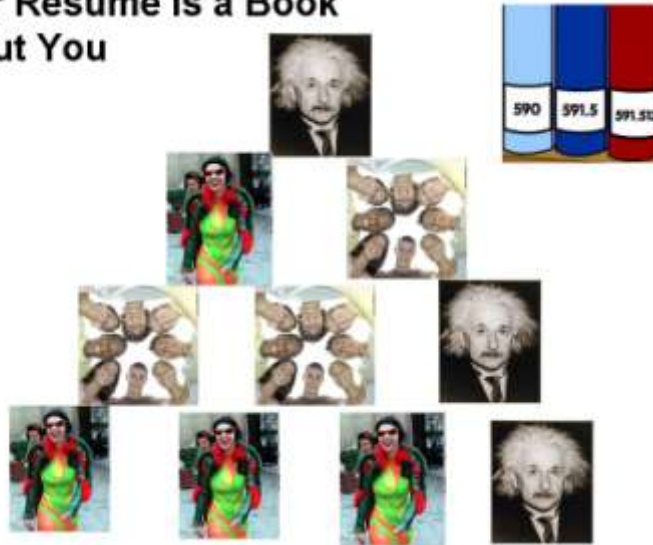
**From our earlier definition; to organize information is to organize a proxy for knowledge and innovation.**

The decimal classification structure has a great advantage for the computer and mathematical analysis. Additionally, tens of thousands of librarians are fluent and most people in the US have at least a minimal familiarity with it.

For a quick review, the body of written information is divided into 10 main categories. Each main category is divided into 10 more categories and each of those are divided into 10 categories – and this can go on forever.

It is useful to note that the Dewey Decimal classification has a bias toward the three factors of production for the innovation economy; Social capital, creative capital, and intellectual capital:

## Your Résumé is a Book About You



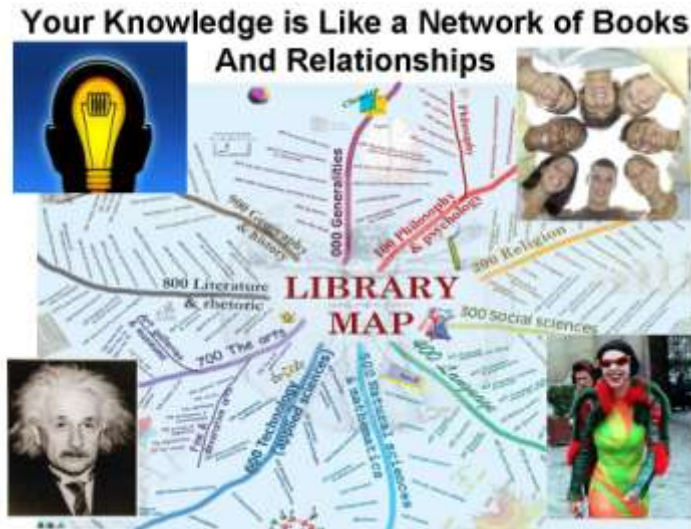
**Most resume reading programs just pick up key words, so why have any other words?**

Your resume can be a series of Dewey numbers instead of words and computers can tag the numbers as they do key words today. For example:

**302, 307, 330, 607, 17, 500, 519**

If your mind were a library and you attempted to map it all out, one would see that everything is related in some way – intuitively, this is what defines you. If we looked into your world, we would discover a huge network of experiences, books read, lessons learned, and people encountered.

We would find a system of knowledge rather than random facts that you have organized. Your likes and dislikes would be reflected in what you do and do not want to do. Everyone is different – nobody is the same. Everyone innovates, everyone has knowledge, and everyone shares information.

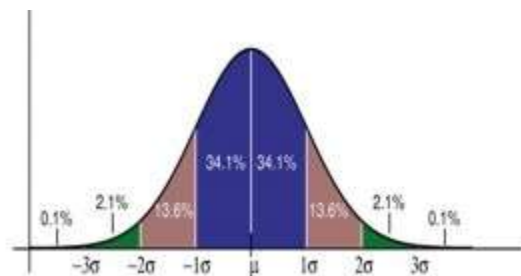


If we add some mathematical symbols and Boolean logic, perhaps we could capture the system of knowledge a little better. Your resume may now look like this:

**{20,12};[302 AND 307], (330):[607 AND 17] OR [500/519]**

Now need to make this look like money. Before our knowledge can behave like a financial instrument we need to add one additional factor – the quality of the knowledge.

In American society there is a persistent ideology of winners and losers; there can only be one winner and the rest are losers. We rank things in a very linear way; 1st, 2nd, 3rd, etc. Our culture is to protect one’s position at all cost, shield away all attackers and decimate our competition. This way of thinking was effective in the industrial economy, but today it keeps us from understanding how knowledge actually exists in a community.



We need to switch to a bell curve distribution for knowledge assets because it better reflects reality and eliminates unproductive competition; there are no winners or losers, just different markets.

**There is a perfectly legitimate market for a Porsche as there is for a Toyota.**

Statistical distributions are used extensively in finance to value financial instruments; we need to do the same now for our knowledge assets. To make financial sense out of our random world, we must classify knowledge assets on a bell curve. Consider the following resume:

**{20:95%,12:80%};[302 AND 330]70%:(607 AND 17)80% OR [500/519]90%**

This person is a specialist in Social Interaction and economics at the 70th percentile related to educational research at the 80th percentile. She (or he) has a Background in applied mathematics and physics at the 90th percentile. She (or he) is a trained ethicist at the 75th percentile, philosopher, and artist specializing in musical theory and orchestration at the 50th percentile. Fluent English and Spanish

**Now, we have a system of numbers and symbols represent the knowledge of the person in a tangible manner.**

Keep in mind that this is only a demonstration, however, we see some key advantages:

1. The Inventory is Infinite and expandable to any field of knowledge
2. Paints a picture of knowledge and not simply a list of information about a person.
3. Machine enabled, programmable, and readable.

**Now, all of the tools, methods, and equations in the world of banking, finance, and insurance can be used to combine, amalgamate, and diversify knowledge assets in an innovation market.**

Your resume can now be combined with other resumes to represent the collective knowledge of a community. This expression carries all of the information that an entrepreneur needs in order to estimate the probability that the community can execute a business plan. We will discuss predictive characteristics extensively in future modules.

**In the next section, we will talk about the institutions that exist in our communities through computer enabled society which will keep this game free, fair – and most importantly, equitable.**

## 4: Institutions



In chapter 1, we introduced a new paradigm of economic growth; the innovation economy. In chapter 2, we identified information as the currency of trade for an innovation economy and we defined that currency's relationship to knowledge and innovation. In chapter 3 we demonstrated a structure for a knowledge Inventory that would enable an Innovation Economy. In this module, we will discuss the institutions in social media that could keep an Innovation Economy, free, fair, and equitable.

**In civil society, there are laws and regulations that protect our constitutional rights; these are essential institutions.**

The legal system of the United States is extremely expensive, however, the expenditure is necessary to keep the society upright, productive and prevent it from falling into chaos. Where a country's legal system fails, so does its economy. Entrepreneurs do not invest in places without a good legal system and where property rights are not protected. It is that important. Investment abhors risk.

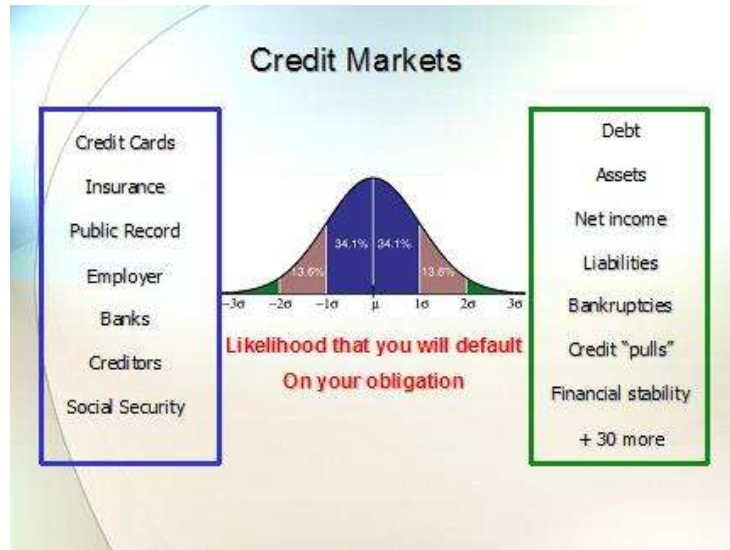
**Arguably, the most important element of the Innovation Economy will be the vetting mechanism.**

Fortunately, social media has the potential to serve this function; in fact in many cases it already does. A feedback system supports Ebay (\$35B Cap), community flagging supports Craigslist (40M ads/mo), peer review supports LinkedIn (150M users). These are not small numbers. All markets must have a vetting mechanism in order to operate efficiently and if done correctly, social vetting has vast economic implications for an Innovation Economy.

**First, let's return to our financial analogy.**

In the old days, the banker was the person to know if you wanted to be successful in

town. But with the emergence of the credit score, the “banker” became digitized; now a Saudi Billionaire can lend money to a young couple in Boise to buy their first home – and neither is aware of the other. The credit score is responsible for the creation of great wealth because many more entrepreneurs could borrow money to invest in enterprise.



The credit score is statistical in nature; it isolates about 30 or so indicators of your financial activity and puts them on a bell curve relative to everyone else. These include how much debt you have, how much your assets are worth, your income, etc. These ratings are run through the FICO Equation and out pops your credit score. Anyone can now predict the likelihood that you will default on your obligation.

All of the data that feed FICO are collected from public records, your employer, and the people who you borrow money from because these same organizations have a vested interest in a system of correct credit scores.

### **We are competing with ourselves.**

It is interesting that you and I do not compete for our credit score because it is not a ranking system. On the other hand, with no credit, we are invisible and the system shuts us out. With bad credit, the system shuts us out. We lose some freedom and privacy, but we accept these terms well because they provides us with tremendous benefit to finance a business, automobile, or a home without needing to save cash.

### **Now we will draw the comparable analogy from the social media.**

In the old days, the hiring manager was the person to know if you wanted to get a job. They would read your resume and compare it with “bell curve” in their experience about what has worked or not worked in their past. This worked great in the industrial economy, but it falls far short in the innovation economy. Innovation favors strategic

combination of diverse knowledge where the Industrial economy favored identical packets of similar knowledge.



Not unlike the FICO score, the knowledge inventory is a collection of statistical variables and the social network is the reporting agencies who have a vested interest in a system of correct values. Unlike FICO however, the variables are infinite and it responds to positive event input. **Social networks are by far among the most exciting and important new technology for an Innovation Economy.**

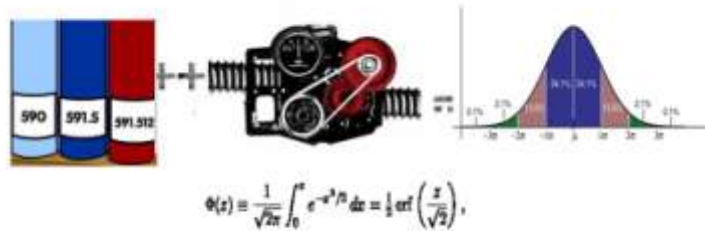
Social networks must now evolve to become the vetting institutions for knowledge assets.

**All the pieces are almost in place; now we need to develop a new type of search engine.**

The Percentile Search Engine is generic term for the ability to make statistical predictions about all types and combinations of knowledge Assets in a network. Conceptually, the percentile search engine is where all of the equations that we use to analyze financial assets are now applied to knowledge assets. The main characteristic is that the search engine returns probabilities for the entrepreneur to test scenarios.

**For example;** an entrepreneur may want to know if her team has enough knowledge to execute a business plan. Perhaps the team has too much knowledge and they should try something more valuable. Maybe the team does not have enough knowledge and they should attempt another opportunity or accumulate training.

## Percentile Search Engine



The Percentile Search Engine is a way of using a computer to make predictions about all types of combinations of knowledge Assets.

The search engine can look into a network and identify the supply and demand of a knowledge asset. If it is unavailable or too expensive, the search engine can adjust for price, risk, or options that may emerge at a later date.

**Talent will bid up to their productivity value, and brokers will bid down to their productivity value.**

Competitors can scan each other's knowledge inventory to compete, cooperate, acquire, or evade. If a key person retires, the entrepreneur would simulate the knowledge that is lost and reassign people strategically. All of these scenarios can be examined prior to spending money. They can be made during the project cycle, or after the project is completed. Lessons learned can be used to adjust the algorithm perfecting it over time.

**For example:** companies such as Disney and Boeing both use Engineers, each would have proprietary algorithm of knowledge that represents their "secret sauce" of success. These recipes can be adjusted and improved to reflect and preserve the wisdom of an organization.

**When the innovation economy will catches fire....**

Over time, these algorithms will far more valuable than the Patents and Trade Secrets created by them – this will allow technologies to be open sourced much more profitably and shared across more industries.

## 5: The Entrepreneurs



**There is no shortage of entrepreneurs in this world.**

6 Billion of them wander the Earth looking for assets that exists at a low state of productivity waiting to be elevated to a higher state of productivity.

The entrepreneur must first be able to identify an asset as an asset. Next they need to identify the lower level of productivity and they need to be able to imagine the higher potential level of productivity. The entrepreneur must identify and manage some risk, perform leadership tasks; and as a result, elevate the asset to the higher state of productivity. Profit is the difference between the lower and the higher state - minus expenses.

**Unfortunately, today this process starts at the forest and ends at the junkyard.**

This is how our economic system is organized. The next economic paradigm flips that idea over. Instead of accounting for natural resources as the tangible element and human knowledge as the intangibles element; the next economic paradigm must account for the natural resource as the intangible element and the human knowledge as the tangible element.

**The current problem is not that knowledge is intangible; rather, knowledge is simply invisible.**

The Ingenesist Project will make knowledge assets visible by provisioning all of the information that an entrepreneur now needs to identify the knowledge asset and the associated states of productivity. Entrepreneurs can then increase human productivity using knowledge assets applied to natural resources, instead of natural resources applied to consumption. The implications are vast.

### **Returning to the financial analogy:**

With a financial bank, the entrepreneur assumes that they have the knowledge required to execute a business plan and they go to the Financial Institution to borrow the money.

With an “Innovation Bank” the entrepreneur assumes that they have the money to execute the business plan, and they go to the innovation institution to borrow the knowledge.

### **While this may sound trivial, the implications are vast:**

1. A virtuous circle now exists between society and the financial system
2. Profit is derived from increasing human productivity not natural resource exploitation.

### **Economics is the science of incentives:**

A financial Bank seeks to match a surplus of money with a deficit of money. It is in the best interest of the bank to find rich people who will not need their money for a while, and poor people have the best likelihood of paying the money back in time. The process assumes that the borrower has the knowledge required to execute a business plan when they seek to borrow money. However, that FICO score does not measure knowledge explicitly, so little incentive exists to make it tangible. All of the top ten reasons why businesses fail are due to failures of knowledge. The financial system is collapsing under the weight of failed knowledge.

By contrast, the Innovation Bank seeks to find people who have a surplus of knowledge and people who have a deficit of knowledge about what they intend to produce. The innovation bank then uses a series of statistical calculus (the same calculus as the credit/insurance/risk management professions) to match most worthy surplus of knowledge assets to most worthy deficit of knowledge assets. Here, the opposite assumption is made; everyone assumes that the borrower has the money required to execute the business plan and they go to the innovation bank to borrow the knowledge. People have an incentive to accumulate knowledge.



**Financial Bank:**

**Have the knowledge – Search for the money**



**Innovation Bank**

**Have the Money – Search for the Knowledge**

**Simplicity that defies comprehension:**

The business plan for the new entrepreneur is deceptively simple to do and nearly impossible to monopolize; anyone can do it not just the wealthy and their chosen few. The next 3 modules will outline how new enterprises will be constructed from the virtuous circle created between the financial bank and the innovation bank. This changes everything .... and did I mention that the implications are vast?

**The Virtuous Circle**



## 6: The Business Plan



The objective of this series is to contain what we know about social networks within the construct of the financial system. The intention is for knowledge to behave, and thereby trade like a financial instrument. In prior chapters, we discovered the currency, the inventory, the institutions, and the entrepreneurs of the next economic paradigm. This module will construct the business plan:

**A business plan is the blue print for the construction of enterprise.**

Like the construction of any tangible asset, an inventory of parts is assembled in strategic proportions. The ability to accomplish this gives the enterprise a strategic and competitive advantage in a market.

**Business failures are knowledge failures**

Most enterprises will emphasize design, or service, or performance or price in their proprietary secret sauce of market success. The question becomes, what quantities and qualities of strategic components allow the new enterprise to create a positive economic outcome.

Most business failure are due to knowledge deficits such as the inexperienced management team, a poor assessment of market conditions, under estimating the amount of money needed, under estimating a competitor, loss of a key employee, or the poor understanding of the technology, etc. These are knowledge problems not financial problems.

## Predictability is the quality of knowledge:

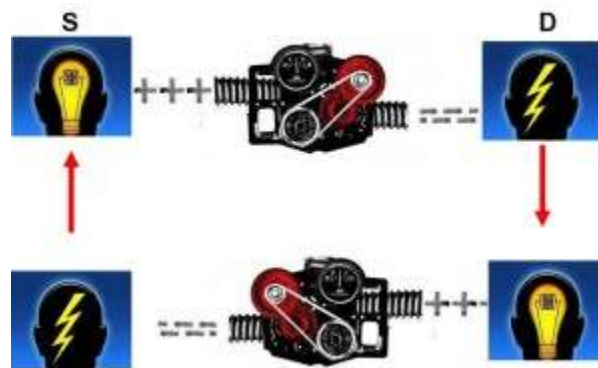
To solve the knowledge problems is to decrease the risk of innovating and increase the predictability of innovations. To decrease the risk will decrease the cost, and increase the availability, of venture capital. To increase the predictability would increase entrepreneurial activity.

## The Unit Business Plan:



The business plan of the innovation economy is very simple; it starts with the single transaction between two people. The lender provides information and the borrower combines the information with their existing knowledge to create more knowledge. This single transaction has a value of 1 unit of currency and we call it a unit business transaction:

## The Parallel Circuit:

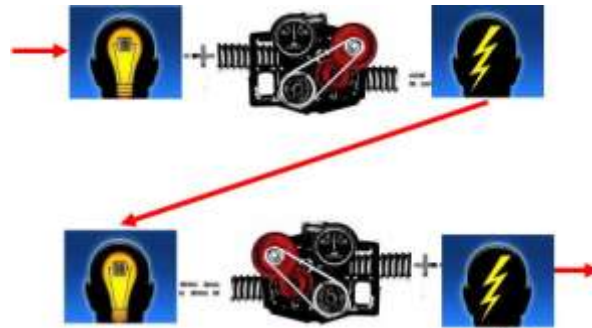


Now we will assemble these single transactions in many combinations. When we combine two unit transactions in a parallel circuit, this represents a brain storming session between two people.

The Percentile Search Engine matches the person with the most worthy knowledge supply to a person with the most worthy knowledge demand. The transaction is a simple conversation and the outcome is a prototype process, system, method, or iteration.

## The Series Circuit:

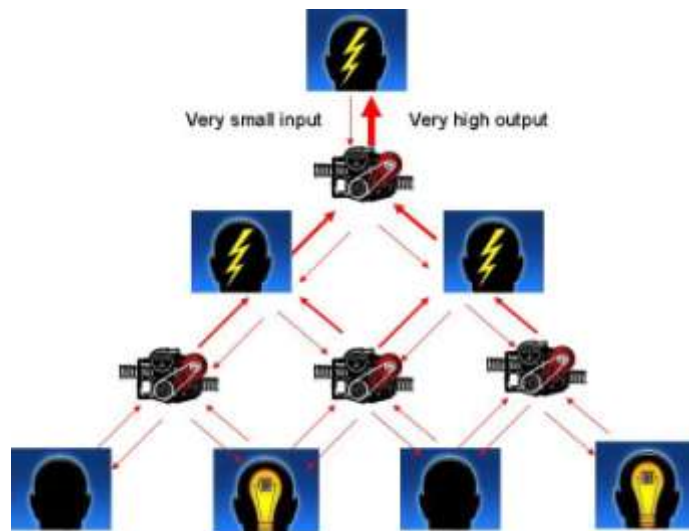
The next transaction type is modeled as two unit business transactions occurring in a series circuit. This represents a product development cycle.



Each cycle of these transactions is an improvement to the business objective. Each time the transaction occurs there is a net increase of new knowledge and therefore an increase in value. New options are created. The conversation stops when the product is ready for the market, cancellation, or next physical iteration.

The transaction is recorded as an event between two known persons of known knowledge inventories. The transaction is stored in the intellect of the participants and becomes their property in the form of a knowledge asset represented by the things they create with their knowledge.

### The Social Network:



Now if we combine the parallel transaction with the series transaction we have what now looks like a network. In practice, we know that strong networks of people freely exchanging ideas make organizations better, smarter, and more efficient. Networks are where knowledge and community wisdom is stored. A network is fault tolerant, if one person leaves, the network survives. For a relatively small input into a network, we can produce a large output of new knowledge – we have a learning organization.

However, in society, these interactions are largely accidental; people meet at Church, Starbucks, and Social Events or by word of mouth. Other times, these interactions are

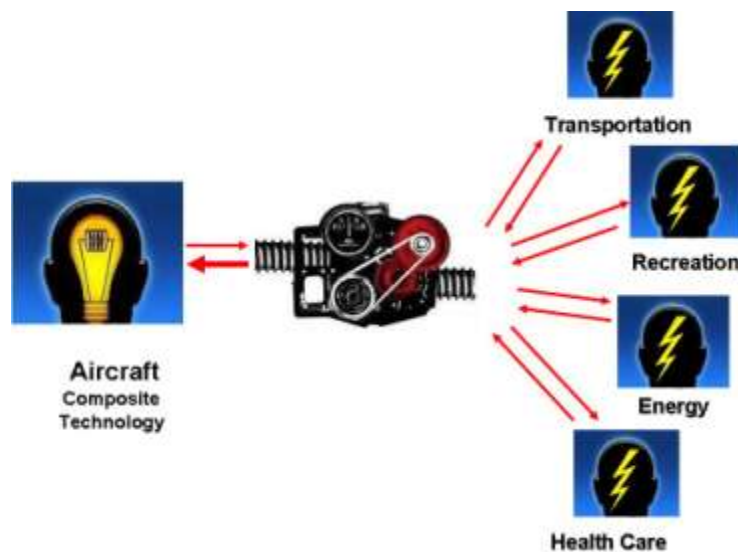
concentrated inside a single community of very similar people such as a technical conference, group meeting, or lunch buddies and are often not well diversified. More recently, interaction is self selecting through social media devices such as Twitter, LinkedIn, Craigslist, Biznik, and Meetup, etc.

### **What if the social interactions could be made less random and more intentional?**

Suppose interactions be designed with a specific purpose by the entrepreneur as a means toward producing a unique outcome. The Innovation Bank will combine people of complementary knowledge assets in a calculated manner in order to arrive at specific business approaches and applications.

### **What if Innovation could be made less random and more intentional?**

#### **The Multiplier Effect:**



A special case business plan is called the Multiplier Effect. In effect, we are building a network of applications from a network of knowledge assets.

Suppose that a company owns composite material technology for use on aircraft. Since the company specializes in airplanes, they have no intention of pursuing other applications such as recreational equipment, energy production, or health care products.

#### **The Innovation Bank:**

Suppose that the company could deposit this asset in a bank and collect interest. The Search Engine can scan the business landscape to find persons or organizations with a worthy knowledge deficit in the area of your technology. The originator holds the option to see what those other companies invent and hold the right to use their new ideas in an aircraft application.

*Contracts manage those options. Those contracts are social contracts and they can be traded. They are a form of currency - or stored value.*

In the event of a cyclic downturn, instead of “laying off” knowledge assets, people can work in tangential industries where they will continue developing – literally putting “Knowledge in the Bank” - to be called back to their original company when market conditions improve. A mobile knowledge asset increases in value and continually becomes smarter and more productive over time. This is not socialism, this is not capitalism, this is Social Capitalism

**Market Efficiencies:**

With an innovation Bank, a company can reduce their Research and Development costs and create additional revenue in a tangential innovation market. Millions of people are being laid-off work from corporations - billions upon billions of dollars of innovation potential is being squandered. With reduced cost and risk of innovation, The new American corporations will specialize in inventing, networking, and applying new ideas as their primary revenue source.

## 7: Monetization of Knowledge Assets



### **The New Game in Town:**

We have specified a structure for a new economic paradigm by simply integrating the the knowledge economy into the same structure as the financial system. The result is a completely new way for entrepreneurs to create wealth.

### **Primordial soup:**

**Chapter 1:** We specified that Information is the currency that is convertible to knowledge assets and innovation assets through a mathematical relationship.

**Chapter 2&3:** The decimal classification and logic system provides a machine-enabled accounting and inventory system for knowledge assets.

**Chapter 4&5:** The factors of production for the new economy are: social capital, creative capital, and intellectual capital.

**Chapter 6:** Social Networks provide vetting, perfect information, and self-regulation.

These ingredients allow the spark of entrepreneurship to illuminate the supply and the demand for knowledge assets outside the construct of traditional corporations, government, or academia; instead catalyzing innovation enterprise within and among social networks.

### **An economy is born:**

Entrepreneurs now have all the information that they need for matching surplus knowledge assets to deficit knowledge assets as a means of increasing productivity of these assets in a highly predictable manner. Advances in Social Media will keep the game organized, localized, transparent, self-regulating, and fair. The **Unit Business transaction** can be assembled in infinite combinations to support countless 'new-to-this-world' innovation enterprise.

### **Show me the money.**

Monetization is the process transforming a product or service into a universal tangible currency; specifically, a Dollar, a Euro, Yen, etc. Very few people fully understand how money is created in the first place. The following video series gives an excellent overview of this process. It is highly advised that the reader invest 40 minutes in viewing this [documentary](#):

### **Money represents future productivity:**

In short, money is created from debt. Banks are given the authority by a government through the fractional reserve system to literally scribe money into existence. This money is not backed by gold or silver, rather, money is backed by the promise of the borrower to pay it back in the future.

Ultimately, the value of money is a social agreement; a promise based on an estimation of future productivity. When those promises cannot be kept, the value of economy diminishes. When the promise is exceeded, the value of economy appreciates.

### **Blood brothers or distant cousins?**

Debt and innovation have one very important feature in common; both are a proxy for future productivity. Therefore if debt can be used as a basis for a national currency, so can innovation. Everyone should be willing to honor the social agreement because the currency would not change, only the basis of the currency.

The only way to sustainably create more money is to increase human productivity. The only way to increase human productivity is to innovate.

### **The Risk Factor:**

Our financial system has developed over 400 years a variety of systems, methods and analysis tools to manage risk in monetary transactions. Innovation economics has applied the same system to the management of risk for transactions of knowledge assets. The correlation is as follows:

The Financial Bank: the entrepreneur assumes that they have the knowledge to execute a business plan and then they go to the financial bank to borrow the money. *The remaining risks are knowledge related.*

The Innovation Bank: the entrepreneur assumes that they have the money to execute a business plan and they go to the innovation bank to search for the knowledge. *The remaining risk is finance related.*

As such, they hedge each other.

### **The Virtuous Circle:**

The more knowledge you can assemble, the more money you can borrow. The more money you can assemble, the more knowledge you can borrow. With both banks acting together – the risks cancel each other out and an economy of risk free innovation emerges.

### **Amalgamation of predicted cash flows:**

With a computer readable knowledge inventory, diverse communities of practice, a percentile search engine, and the virtuous circle of finance; cash flows associated with innovation enterprise can be predicted much more accurately and with far lower risk than any current innovation system.

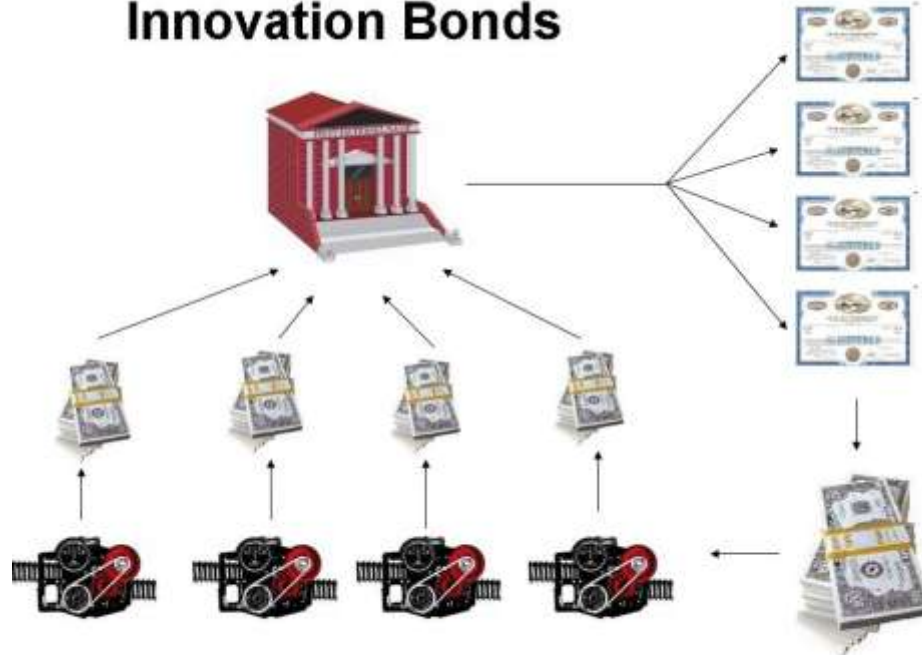
Were risk is predictable, a portfolio of innovations can be diversifies so if one innovation fails there is an equal chance that another will succeed and the risks cancel each other out. The predicted combined cash flow of all the innovation enterprises can be depicted as a single large steady cash flow with low volatility.

### **Call Street:**

Much like today's companies do to raise money for expansion, the innovation bank can issue bonds on the open market. A bond is a debt based on future innovation and will act as the transitional instrument to monetize innovation economy. Options can be sold on futures of innovation enterprise.

For example: a bond can issued by a bank or a government with coupon price of 1000 dollars paying a risk adjusted interest rate and redeemable in 8 years. The proceeds can now be used to fund innovation enterprise which, by definition, are qualified and quantified on the basis of increased human productivity. Investors can buy options on promising algorithms for knowledge assets.

# Innovation Bonds



Diversify risk away, combine cash flows, divide into bonds, issue to investors, finance more innovation

This system is exactly how mortgages are financed through global networks of bonds, options, and hedge funds. The current economic crisis happened because estimations of future human productivity failed to support the estimated value of the assets being represented.

The Innovation Economy is the hedge against financial crisis and consumption capitalism - now and in the future.

## The New Gold Rush:

Innovation Enterprise can easily exceed the 7-12% return that is normally expected on Wall Street. Venture Capitalists only entertain innovation expected to return 1000%-5000% return. There is a huge market of innovation enterprise in the regime between 12%-1000% that is currently uncanceled. If innovation bonds and associated options return only 25% consistently, the flow of global capital will be intense and our nation will be transformed far beyond any current expectation. The opportunity is, however, even much greater than that; Innovation will reflect social priorities rather than Wall Street priorities.

## Conclusion of Part 1

If you have read this far and endured the necessary slog through the technical aspect of this thesis, I thank you. As you can imagine, modern finance has had 400 years to evolve to a state that we must reach in a relatively few short years of dwindling natural resources.

As many people also know, modern finance is intensely complex – so much so that it would seem that humans have reached their intellectual threshold in the ability to understand, let alone control, the system they created. If people do not understand what the currency of trade means, they will trade something else. This is evident in social media, the call for a gold standard, and even a single world currency.

The battle for the currency is on the horizon. Today we have a currency backed by debt. Somewhere along the line, the basis of the currency was divorced from human productivity which created the objects of trade.

Obviously, the invention of the wheel, wedge, and pulley came long before the invention of collateralized debt obligations. In fact, such innovation enabled the financial industry that now tears it down. Somewhere along the line, economic growth became the master of technological change. This is the singular flaw in market economics that is simply and easily corrected with the ideas presented in this thesis. Technological change must be restored as the rightful master of economic growth.

Note well that the structure specified in this thesis requires no new infrastructure, no new government regulations, and no immediate to any currently profitable industry or corporation. The structure specified in this thesis includes and empowers every single person, not just the top 99<sup>th</sup> percentile Harvard/MIT crowd. No new laws are required – the system automatically rewards high integrity and punishes low integrity. The structure specified in this thesis does not discriminate, rather, it finds a legitimate market for everyone regardless of race, gender, lifestyle preference, or physical ability.

America often calls on less developed nations to progress to the next economic threshold. Agrarian societies must become manufacturers in their comparative advantage engaged in world trade, etc. Manufacturing countries strive to become knowledge economies offering themselves as resources for knowledge based enterprise. This is not wrong. This it is true, correct and perfectly legitimate despite the protests of job outsourcing.

The conversation that does often occur is that America must also develop to the next economic paradigm. We must become an innovation economy. Few people can see this because there is nobody to copy. America's success has left a how-to-and-how-not-to manual for the rest of the world. There is no such manual for us. The only clue we have is that the next economic paradigm will be derived from the last economic paradigm by integrating the tools of that prior economy.

**Part 2 will hopefully elaborate on this final point.**