

# Data as an economic growth factor and currency

Personal API's, data management, and the emerging data economy

Identity is data. How might we harness our data for ourselves?

By Joe Fletcher

Data as a Growing Currency – 2017, Raft B.V, Netherlands

R  
A  
F  
T

# 1.0

# Overview

This think piece offers a variety of ideas and insights on the topic of turning personal data into a form of two-sided economic power through monetization. This paper will present a brief overview of the current state of data collection by companies; data portability of users; and why it is important that a platform, policy, and system is created for consumers to better monetize their data. This paper will summarize concepts for how a data economy can benefit consumers, companies, and government institutions. It will discuss the creation of new roles and jobs, as well as growth-based economic solutions utilizing personal data as a form of currency and an economic growth factor.

## 1.1 Executive Summary

Decades ago, personal data collection was done through surveys and in-person polling. Consensus data took weeks or even months to collect and analyze. Also, people could opt-out or ignore these requests. With the movement into the digital age, companies have since capitalized on the lack of regulation, as well as obfuscation of privacy policies to collect consumer data across a variety of industries.

Over the last decade, especially in the last few years, the invasion of consumer privacy has come to the forefront as more sensitive data is being collected. Companies are even preventing consumers from using applications, products, or services if they do not surrender their data.

Governments and consumers are now beginning to wake-up to this pilfering of data. Governments are now enacting policies to protect users from data hoarding companies, while consumers are becoming more educated on how their data is being used.

**Identity, and the data of which it is made up of, is intrinsically valuable.** This is especially true for companies who can create and target products based off that knowledge and data. Through changes in policy, respect for consumers' personal data along with the recognition that data has a distinct value, new types of data assets and personal identity can be created and monetized. This provides consumers with a clear trade-off and reward when providing their data in exchange for goods or services.

By placing personal data back in the hands of consumers, we can build a new type of economy, where data itself represents global economic power through currency, in addition to turning countries and economies into **Data Nations**.

For the purpose of this paper, **“Nation”** can refer to multiple constructs. Firstly, in the historical construct of nations governed and dictated by geography. Secondly, in a non-traditional sense of individuals with the same demographic, economic, or activity interests. This means a nation can be a body, or a collective of individuals, across geographies that represent a type of view.

## 1.2 Changing winds - Government regulation

Governments are slowly beginning to enact policies concerning the collection of digital information. There are currently no global policies regarding the collection, usage, or privacy of consumers information. Much like net neutrality, deep packet inspection (DPI), or the blocking of certain content, each government provides its own policies. The European Union is one of the first government bodies to take a stance on putting control back into the hands of individuals when it comes to data. The General Data Protection Regulation (or **GDPR**) will come into effect in 2018, whereby consumers must opt-in to data collection and have portability of their data.

**“The processing of personal data should be designed to serve mankind.”**

- The General Data protection Regulation

Government policy can play a big role in turning personal data into a commodity, which can be traded as a currency and support the idea of ‘Data Nations’. As governments place emphasis on protecting consumers and their personal data on a global scale, this change in policy can be utilized to create new types of economic systems. This type of global digitalization - the collection and sharing of data across borders – can create economic equality and offer more opportunities to people globally.

The digitalization and global trade of data takes us towards a different type of recognition of nations. Some countries are considered “developed data nations”, while others are “developing” based on the government policies, initiatives, and infrastructure investments made. Potentially, countries considered “developing” nations may be in the best spot to secure a role as a “developed data nation”. The observation of their approach of building smart data infrastructure, as well as the implementation of regulations and policies, would supports this type of new economic ground.

Data value and supply may have nothing to do with traditional economics, thus allowing “developing” countries to leapfrog countries that are economically “developed” but data deficient. Countries that are building infrastructure now could be in the best position to leverage smart infrastructure and capitalize on new technology to build them into a developed data nation.

×

Internet users in the emerging world are more frequent users of social networks compared with U.S. and Europe  
- [BBC](#)

# 2.0

# Identity is value

**Looking forward, we need to make identity a profitable position.**

Each person produces unique data, which at the same time can be aggregated into patterns. As digital goods become more targeted - either on an individual or group level - identity and data will become the foundation of which new products are built upon.

## 2.1 Breaking down Wealth and Value

**Wealth is how much money you have, value is how much you participate (contribute)**

- Block Chain Revolution, Dan and Alex Tapscott

### 2.1.1 Wealth

Wealth is the money and assets a person has at any one time. With the advent of digital globalization, more people have been given opportunities they never had before. People in developing countries can join the developed nations as digital nomads.

In this ever connected and digital world, more people are striving to earn wealth through connected and digital means. More people have access to opportunity and earning power. More people can create wealth for themselves no matter where they live.

It is important to understand this perspective of earning and accrual of wealth as a driver for both individuals and companies. The ability to generate wealth is also a foundation of prosperity and freedom. This think piece reflects on how individuals can create and generate more wealth for themselves by utilizing the one thing everyone has: an identity and data connected to that identity.

## 2.1.2 Value

Value is a person's relative worth and importance to a system. Companies and countries see value as something that contributes to a broader system and for this, return is provided in terms of wealth. This may come in the form of a salary, stock, or some other type of compensation. As an individual increases their value within a system, they can also increase their wealth.

A person's data, and thus their identity, is an amalgam of their activities. Each one of these activities can have intrinsic value to companies. By understanding that data has value, it can thus be translated into wealth. The notion of value is important within this paper because all data may not be equal. Unlike net neutrality, **an individual's data may have varying degrees of importance** depending on what can be done with it.

×

# 3.0

## Exponential collection

Through obscure and confusing privacy policies, coupled with telemetry and tracking, companies have been digitally collecting data for decades. This information is used to better target products, services, and advertisements. This usage of data for targeting is not new; radio and TV have long practiced this. However, it was never with this level of intimacy and speed.

The true change in data collection came with digital transformation of companies and the rise of software. To quote Andreessen Horowitz, *“Software is eating the world”*. The byproduct of this gluttony is a surplus of openly flowing data.

Global digitization has sped up the pace and ease of data collection. From automobiles and mobile phones, to kitchen products and smoke detectors as data collection devices. Not only does it allow companies to collect individual nodes of data at any one time, but it also turned on a data faucet allowing companies to collect data in real time. As an example, [Toyota estimates](#) *“...data volume between vehicles and the cloud will reach 10 exabytes per month around 2025”*.

Driven by the advancement of chipset technology, the rise of the Internet of Things (IoT) has led a consumer’s daily environment to become a data collection unit - with the smartphone and personal identity at the center. We are beyond single points of data, sitting inside a constant matrix of data flowing from different sources, formats, and time intervals. Companies are not simply sitting back and only collecting what they need. They are collecting everything they can.

Comparable to a gold rush, companies harvest all they can, even if they do not know how to use it. They know it is valuable and needed to find ways to leverage it. From there, companies will collect, package, utilize, and sell user data. Not only does this fundamentally take away user privacy, it also removes the user’s ability to create economic gain based on their personal information, in addition to the value contributed to their surroundings.

Companies profited heavily off data they collected, packaged, and analyzed from users. **They were making entire business models off data they collected for free;**



93%

of execs surveyed plan to launch an IoT business within three years.  
- [Forbes](#)

users' personal data and private information were becoming a new business model for companies. Users themselves had little choice as they had no effective way of:

- Collecting their own data
- Selling and monetizing their data in the same ways that companies did
- Collecting payments, specifically micro-payments, for individual data points.
- Knowing where their data is
- Retracting their data
- Analyzing the information within their data
- Placing their data against larger data sets to see insights and patterns

Governments were slow to regulate. In turn, companies were quick to create a new business profiting off a collective customer ignorance - capitalizing on a new source of wealth and information. They concealed the data collection in near clandestine methods to perpetuate and control that ignorance. Uber's collection of data ([collection after uninstall](#)) or leveraging of data ([Greyball](#)) are two prominent case studies showcasing the act. Utilizing various loopholes in policy and lackadaisical regulation, Uber skirted around the legal boundaries to both collect user data without customers knowledge and at times leverage that data against regulators.

If we return to Section 2.1.2, users were creating value every day, but companies were removing their ability to monetize it. What lies ahead, as government regulation shifts, is returning that economic ability to users, and thus giving them the ability to turn their value into wealth creation once again. With exponential data growth and collection, increased economic opportunity materializes.

**Greyball was part of a program called VTOS, short for “violation of terms of service,” which Uber created to root out people it thought were using or targeting its service improperly. The program, including Greyball, began as early as 2014 and remains in use, predominantly outside the United States. Greyball was approved by Uber’s legal team.**

**.... Some of the digital cars they saw in the app did not represent actual vehicles. And the Uber drivers they were able to hail also quickly canceled. That was because Uber had tagged Mr. England and his colleagues — essentially Greyballing them as city officials — based on data collected from the app and in other ways.**

– NY Times - How Uber Deceives the Authorities Worldwide

### 3.1 Data deltas and basic usage

A consumer's digital identity contains thousands of data points across all types of industries and verticals. Companies should be able to access individual pieces of the entire identity for different cost structures.

Reflect on how the following data may differ from a female in her mid-twenties to a male in his mid-sixties. This data would vary across geographies and income status. Data from New York would be different from that of data in Jakarta. Data from the slums of Mumbai would differ from data in Stockholm. Take each of the following examples, and imagine how data could vary from age, region, or gender demographics.

- Health
- Retail Shopping
- Device usage
- Browsing data
- Application usage (phone)
- Application usage (other devices)
- Television habits
- Digital subscriptions
- Financial data
- Location (travel) data
- Transportation – public
- Transportation – private
- Travel data
- Utilities usage (water, electricity)
- Home temperature
- Time at home

As government policies start to shift, having a **global governing policy** would allow access to economic incentives for developing markets as easily to those in first world countries. Of course, companies currently prospering off free data would not simply want to relinquish their advantage. However, change is not impossible.

If enough governments start to address policies that respect user data, an agreement or accord could be signed by countries in support of providing users with protection and the ability to monetize their personal data as a form of economic development.

While potentially painful for some companies, it could open new avenues. With the globalization and freedom of data acquisition, the importance of **analytics** and **insights** become much more imperative. No longer focused on hoarding data, companies would free up resources to better study data, thus delivering better products and services to consumers. It would also allow companies access to untapped markets that were difficult or impossible to gain insight into previously. While not everyone has a bank account, physical address, or perhaps even an identity card, nearly everyone has a phone. Everyone, therefore, has a way of transmitting information and monetizing their own value. Everyone can supply information and allow some type of information to be collected.

## What information can be utilized for public good and private gain?

It is important to understand that creating a global data marketplace does not mean that the current companies would be the only users. Users could be a broad variety of people from start-ups and corporations, to regulatory bodies and governments. An individual could even be a user in this new model.

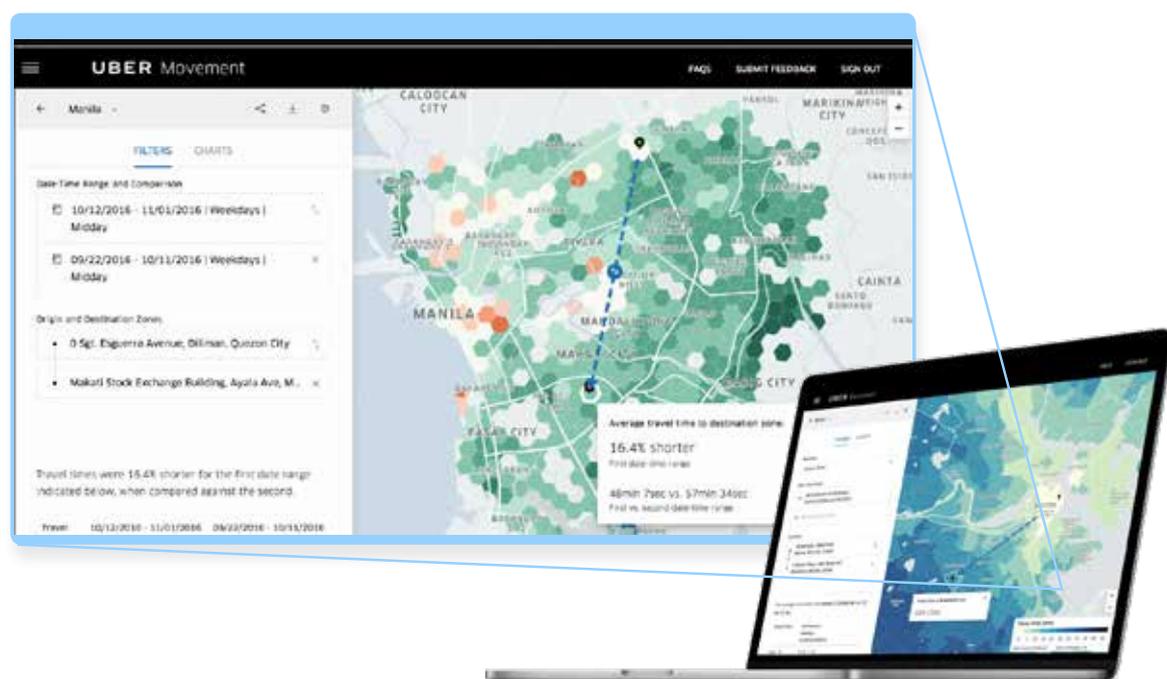
Examples of high-level data that could be leveraged by consumers:

- Transportation patterns
- Crime rates
- Overall physical health
- Housing prices
- Population density
- Air quality
- Employment rates

Governments could collect information to improve infrastructure, safety, migration, regulation, policy, and more. Governments already have a glut of information on cities at large, but have a dearth of information pertaining to private individuals and persons. On this front, governments could begin to merge these two data types in determining better ways to handle policy, infrastructure, and regulation.

Alongside the collection of information by governments, private companies (described in Sections 4.2 and 5.2) can aggregate individual data and create collections which can be used to support or layer on top of government collection.

Take for example, the Uber Movement. The website uses Uber's data to help urban planners make informed decisions about cities.



According to the [company](#), *“Uber trips occur all over cities, so by analyzing a lot of trips over time, we can reliably estimate how long it takes to get from one area to another. Since Uber is available 24/7, we can compare travel conditions across different times of day, days of the week, or months of the year—and how travel times are impacted by big events, road closures or other things happening in a city.”* This is collected based off the company itself, but could also be aggregated where the company could provide compensation to users for the collection, aggregation, and subsequent analysis of their data.

Individual usage of this type of collected data is also possible with this type of **data marketplace**. Individuals could use this data to better understand the city or space around them; the types of people living in which areas. Traditionally, housing markets are based on price, location, school district, and the people who occupy those areas. What if the investment towards a specific housing market is decided based on the community’s health and level of education. This opens up more possibilities and factors for when a person begins to better understand the world around them.

### Personal Data Exchanges

As data collection exponentially expands, a global data exchange market could be set-up. This allows everyone to share their data on equal footing, while encouraging cities to contribute to build better models and receive more information.

With the current level of growth of data, individuals could have their own personal API, where they can grant access automatically on certain types of data for payment and at the same time, restrict certain information from being shared. Certain data could be commoditized, whereas others could hold higher prices. All data does not need to be created equally. Users could set individual pricing for data, or policy could enact global rates for it. The fundamentals of a free market economy could determine what data is valuable based on need and usage.

×

# 4.0

# Personal Data and Usage

## 4.1 Collecting individuals [broad] raw data

The first step in setting up this new system of data economics is a platform for collection and storage that is universal, portable, and decentralized from government or corporation control. Decentralization becomes critical once a platform of this nature is started. It cannot be monopolized or taken advantage of for a specific purpose; its purpose lies in the generalization, anonymization, decentralization, and openness. This collection of raw data allows the foundation for new economic models. While decentralization is vital, regulating the platform – by way of a regulatory body – would also play an integral role to its success.

## 4.2 Data collection and organization

As this exponential level of data is collected, the platform must grant users to select what data to be collected by what sources. Users could connect to multiple streams or devices; they could connect to services (Netflix, Facebook), products (Nest, Wearables), physical locations (transportation, locations), and more (Financial data).

With the growing level of connected products and the continued rise of IoT, companies need to acknowledge what data is collected and discarded within a platform, such as the one presented in this paper. Different individuals, from whom data is collected, may aim for different levels of data privacy. Therefore, they may only consent to certain points of personal data being shared.

Before we dive into how companies can harness these data, there is an entire market that can be created for **how individual users can turn this type of platform and personal data into an economic model**. They can not only turn their data value into wealth through monetization with companies, but also with other users.

Individuals could build their own bundles of information from what they wish to personally share. These could be called **Data Templates**. Users could take initiative to drive individual businesses of one, by creating, sharing, and monetizing, their own Data Templates. Everyone could be an entrepreneur with their own data. Individuals could build templates to offer to other users. If other consumers use an individual's template,

they could be compensated with micro-transactions. Technology such as [Blockchain](#) could be used to regulate who comes up with specific templates first, thus reducing the need for intellectual property or the creation of double templates. This type of technology could also reinforce the decentralized model - ensuring no critical mass or monopoly is achieved. In section 5.0, we explore how users could see all the data collected, packaged, and viewed.

Example templates:

- **Template 1** - Retail purchase, Financial information, Location – how people are spending money and when
- **Template 2** - Application usage, location - where users are when they are utilizing different applications.

In this new data economy, **scale** is important. Once a template is made, the [marginal cost](#) of extending it is zero. Perhaps a user could be paid a fraction of a cent each time another user utilizes the template. That amount would increase for monthly or annual usage. The amount paid could differ based on usage. This would be akin to rights on digital photography: free for personal usage, but remunerated for commercial usage. Leveraging [Blockchain](#) technology, could also track the usage of templates of data to ensure fair compensation over time. The amount could also change based on the “freshness” of data – its [“Time to live”](#) (TTL). Historic data could go for a cheaper price than *fresh* or *live* data. Blackouts of data or loss of freshness could result in loss of payment. This could potentially affect negatively on the perception of that user as a data provider.

Templates may also offer the ability to leverage bundle economics with bundling data. Companies could then collect data individually based on need, or utilize an individual’s personalized templates. Likewise, consumers can offer individual data, sets, or bundled data. Bundle economics allows users to even make money from less interesting data, such as the number of steps taken at home.

The concept of templates and aggregation is explored more in-depth in section 5.0 and 5.2.

### 4.3 My own personal API

We discussed the collection and packaging of personal data above. Additionally, each user would need a way to then share their data. As a consumer, you collect and amass personal data in several ways laid out at the start of section 4.2. However, there has never been a tool or platform, such as a global data marketplace, for individuals to take advantage of their data – one that could allow for both anonymous collection as well as “known individual” collection for those who want to leverage their personal identity. Companies like Google or Facebook would be the closest to represent a broad representation of self or personality in a digital online presence. As noted, the companies themselves control these views on an individual’s personality and self. [“Right to be forgotten”](#) in the EU does allow individuals to erase their data from these companies or digital properties. However, it does not account for data portability. An individual cannot port their data and personality from Facebook or Google ([My Activity](#) from Google) and take it to other companies to leverage historic context. They can only ask for their information to be removed. Currently, individuals may not even realize what data is found or collected by what companies. There is no single source, nor any way to understand how data is distributed.



Individuals can monetize their own data through personal bundles, which can similarly be used by others, driving overall platform growth.

Presently, individual companies may create devices that collect limited amounts of data. Those companies then use that data to provide feedback to their users on their own behaviors and data. However, all this data is proprietary and incomplete. Most data collected in this way cannot make a meaningful impact into users lives.

Imagine seeing all the data you produce and is under your control - it is inherently yours. You own it. It is portable and with you, always. You can build your own analysis and template tools, or provide your data to companies to harvest in return for payment – the exchange of value and wealth. Imagine that companies can analyze complete sets and templates of data. Companies can give you a more complete picture of who you are, and how you stand to benefit from it. Companies right now scramble to collect incomplete pictures of users. They have individual points of data that relate to their service. Imagine if that came company could utilize this global infrastructure to view complete sets of data? They would not have to build and maintain the infrastructure, but rather pay a service fee directly to customers for their data.

Once you have access to your own data and create templates to share it, in addition to using an API to get achieve a global format, consumers could potentially even price them at different rates. Certain data could be commoditized. Others could be auctioned akin to a Google Ads system, where companies bid on data sets. A collective set of individuals could set higher prices for more personal or valuable data. This is explored further in sections 4.4, 4.5, and 4.7.

#### 4.4 My own personal currency

WeChat, Facebook Messenger, and Snapchat already have personalized QR codes. It is not far out to think the money made from one person’s data could be valuable than that of other people. Therefore, data as a currency could mean each person has their own intrinsic value and [spendable] currency. While this could be seen as a unique idea in building social capital and value, it could also be viewed as capitalistic and punishing people for making their data special. It could go as far as goods and services being

Facebook Messenger personal QR codes



**Banknote aesthetics are really linked to the richness of culture, history and personalities of their countries.”**

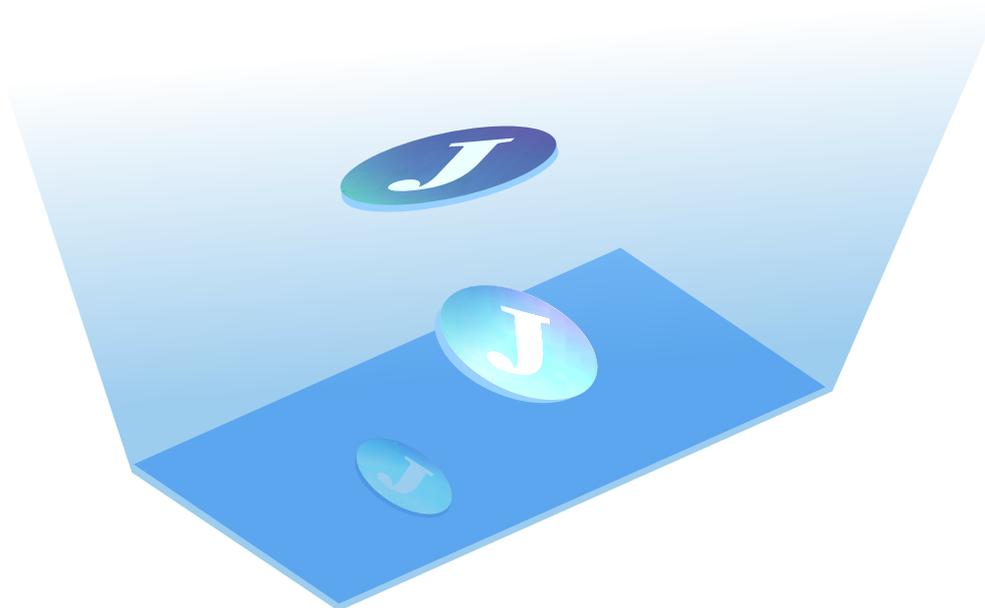
[- CNN, What if companies printed their own currencies? By Jade Dalloul](#)

dictated based off a person’s personal currency: an apple may cost 5 Fletcher-Dollars, while an apple for another person is 7 James-Dollars. Each product in a store could be scanned and the price displayed is tailored to an individual’s personal digital currency. Each person becomes their own value generator and monetary system. While central or [fiat currency](#) could still be the de facto currency across the global, a personal digital currency (e.g. a personal cryptocurrency “Fletcher-Coin”, like Bitcoin) could be used and linked to the stabilized fiat currency. This could lead to a myriad of ethical or authoritarian debates. This paper only brings it up to highlight the completeness of ideas, but does not specifically advocate for such a system.

While this type of data economy system could have data neutrality (similar to the concept of net neutrality; that all data is equal), it could also be reasoned that certain people have more valuable data based on social status and impact. Perhaps data, like advertising on social media becomes a platform for advertising. Could we see the health data of Dwayne Johnson and want to aspire towards that by learning his workout routine? Could we see the quality of Warren Buffet’s sleep to understand his approach to his workday? Or perhaps we could see the trek, vital signs, stress indicators, and other information for a refugee – bringing a stronger sense of empathy to forced global migration. Data neutrality is appealing and sets an even playing field, but the thought experiment of abolishing neutrality of data should be done to investigate all the routes of this type of new economic setting and playing field.



Dogecoin is a cryptocurrency featuring a likeness of the Shiba Inu dog from the “Doge” Internet meme as its logo. Introduced as a “joke currency” on 8 December 2013, Dogecoin quickly developed its own online community and reached a capitalization of US\$60 million in January 2014; as of June 2017, it has a capitalization of US\$340 million.



The suggestion of personal currency is certainly not new. Companies like [Steemit.com](https://www.steemit.com) ([Steem.io](https://www.steem.io)) are already seeing the value of transforming social influence and value creation into wealth generation. These are realized in STEEM tokens and not personal currency, but the idea of your personal value being translated into wealth is already coming to the market. STEEM is somewhat of a microconcept of what this paper outlines and presents. It represents a future that could bring about new types of jobs and economic stability across the globe and to non-geographic nations of individuals. [Verizon UP](https://www.verizon.com/up) is another example of enticing customers to provide personal data in exchange for rewards. Although the presentation of UP severely obfuscates the aspect of data collection, which the author of this paper does not recommend. Looking back at Section 1.2 and the start of global changes in data protection from governments, it is expected more of these programs will be created by companies.



Steemit.com

#### 4.5 Personalized data settings and cost setting

While it is common for software to have APIs, what if consumers had them. Through these data APIs, users could see a view of all their data - having a dashboard on their life through a clear and complete digital mosaic. This allows them to not only understand their own data, but also their own behavior, habits, and reflections into their life they may not have otherwise. They could link in new data from various sources. They could block, or privatize, access to certain data.

A new set of partnerships could be established around wearables, mobility services, and retail chains. Users could opt to tie-in their other data with their personal digital mosaic. The more information a user collate, the more they can access personal analytics and reflect on their own data. The more they choose to share, the more value (wealth) they can make from allowing anonymous access of their data.

As mentioned above, not only could the value of data differ per individual. An individual's data itself could differ based on factors such as demand (e.g. Uber Surge Pricing), commonality of that data, or the location that data is being obtained from. Of course, as stated above, the ability to bundle data can create costs for individual data and costs for sets of data (templates used to organize users' personal data). Presenting this as a true economic system, in theory, users could simply focus on managing their data and make a living off selling their personal anonymized data. As put forth in the executive summary above, identity is inherently valuable. An individual could make a living purely from managing, leveraging, and exploiting their own data. The catch-22 is, unlike many social media celebrities, the more time spent on managing and curating an individual's own data, the less time they spend on creating or amassing useful data.

#### 4.6 Personal analytics

Since this is a user's personal data, they can always build their own analytics on top.

However, it is interesting to note that the roles of **data analyzer** and **insight driver** (see Section 5.0) does not only apply to companies, but also to individuals. In the same way a consumer could create, sell, or buy a template, they could also buy a personal analysis from a company or individual. Imagine being able to compare spending habits, fitness levels, TV time, food purchases with those around you. Imagine being able to compare or see data from those who live in the next country against your own personal data. This type of data could, and most likely should be anonymized, to avoid intense invasions of privacy by individuals or companies. However, there may be those who do not care about anonymous information, specifically those who may want to leverage their own personality to build a brand on their data.

Now imagine that, thanks for an Insight Driver, you can get advice on actionable tasks on how to alter your tasks. Since there is near limitless ways to combine data, and all types of templates an analysis can be performed, more individuals, start-ups and large companies can begin to create these insights at a near Moore's law level. Ultimately, the market will dictate what is useful, removing the weaker or less useful insights. As companies can see what is successful, they can continue to refine their analysis and insights tool to provide ever better advice, insights, and improvements for individuals.

#### 4.7 Collective Price Setting

Within geographic areas or within common interests, tribes or groups could set collective pricing for their information. If information of a specific type in a rural area is worth  $N$  (i.e. traffic data), perhaps in a larger city like New York, that data could be worth  $N(x2)$ . Perhaps data prices could be set through demand, much like Surge pricing in Uber. If a specific type of information is in high demand, the system automatically puts that data worth at  $N(x1.5)$ . Prices could be set automatically through the system, or by regulatory bodies who feel data in their area is intrinsically more valuable than other areas. However, the downfall here, and the argument of this paper, is that individuals oversee their own data and the intermediating system should not interfere in pricing. Collective setting or system setting does violate this rule, but it is worth bringing up as a thought experiment.

#### 4.8 Company bidding

Comparable to bidding on keywords, companies or those who are in search of specific data could bid on it. Perhaps consumers could only allow up to 10 harvesters to access their data and this is determined by a bidding system. For those who have data deemed more valuable, they could apply a level of scarcity in access to drive up the price. Similarly, individuals may place a higher price on real-time data versus historical data. The ability to differentiate the price of data based on multiple vectors, scarcity, and individual is a separate whitepaper in itself. Of course, if too many people do this, companies may pull back from access overall, thus limiting a growth and flywheel effect.

×

# 5.0

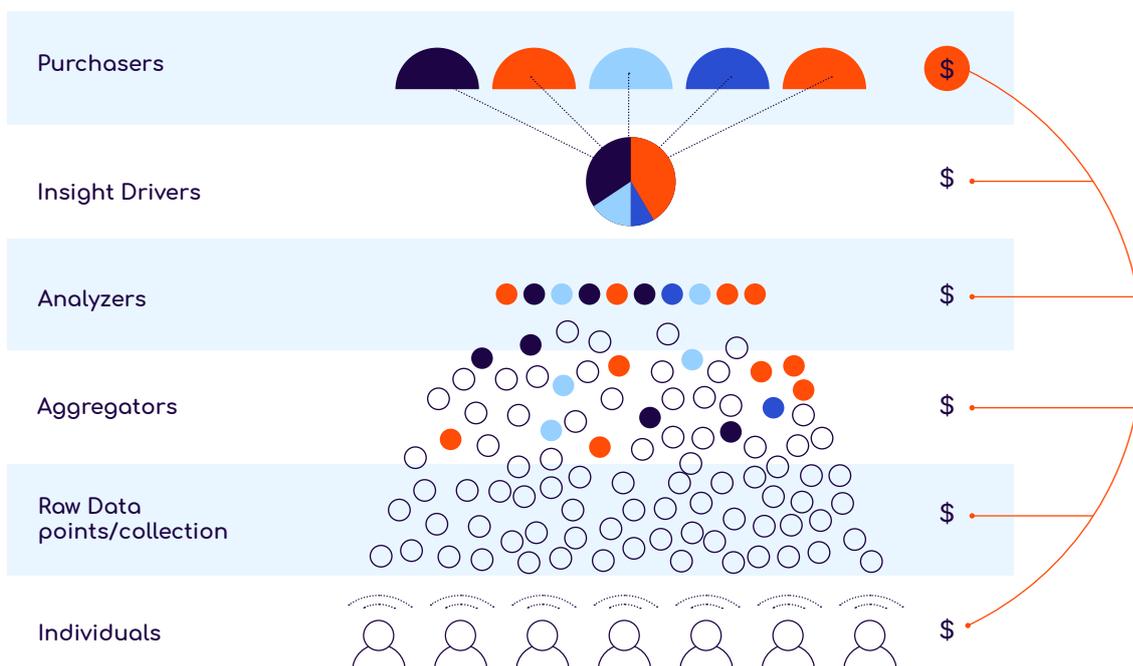
# The Layering of New Economics

## 5.1 Individuals Data

This is covered in the areas above that showcase how data is collected and identity is turned into value, therefore leading to wealth. This part of the stack represents the most critical of all foundational pieces. Without this, nothing else will be able to exist or work. Like many interconnected and social systems, the network effect plays a large role in the success of this system.

## 5.2 Data aggregators

The ability to aggregate and package data would not purely be for individual consumers by way of templates, or the companies utilizing the data. It could be a new form of company and business that is created as a middle layer in this new economic structure.



Entire companies could rise up and create packages of data. Hand-picking individual data and creating packages that could be utilized by companies, organizations, individuals, or governments. Imagine packs that are around health containing not simply traditional health data, but also TV time, food information, and sleep statistics. A complete package of health to analyze. Another company could provide a package highlighting “in-between time” giving companies a definitive list of where customers are bored and have between 15-120 seconds for companies to cater to that “bored” or free time. It could provide heart rate, location, and other activities users engage in for the same amount of time.

While an individual from the bottom up, could create templates and share it within the data community, these companies could look top down across data and develop different packages off much broader statistical information. The packages and combinations could be nearly limitless. Like the [App store \(iOS\)](#) that Apple introduced in 2008, it serves as a platform for those with imagination to harness and create new opportunities with.

### 5.3 Data analyzers

The next layer on top of bundling could be companies and businesses set up to analyze and provide understanding around these bundles. Taking the data from each bundle, containing a few individual points to potentially thousands of data points, and deriving applicable meaning and insights from those points. Presenting different views on the data that can help companies interpret all of it. This layer may offer one of the most protected and IP driven areas. While packages of data represent raw value, the intelligence learned from analysis is where the true value may lie. This may become increasingly important for machine learning (ML) algorithms as ML learns and functions based off the data that it utilizes. As data is interpreted differently, different conclusions or analysis may be reached. And based on how individual ML functions are created, machines may learn to be different even utilizing the same initial set of data.

### 5.4 Insight drivers (what we learn - dashboard, action oriented)

Alongside data analyzers, insight drivers represent the other side of the **critical tag team** that may begin to become the measurable differentiators of companies. This is not simply a potential genesis for a type of company, but a type of profession. A merging of [data] analysis, ethnography, psychology, and anthropology. These companies or individuals would look at the analysis of the data, then layer on their unique perspectives from macro trends, economics, government policy, population migration, or anything else they may feel can be utilized to create new insights or meaning from standard sets of data. Much like researchers or Think Tanks, a new type of role could be derived from this economic shift in the use of personal data. As data is collected, packaged, and analyzed, companies will still need to generate insights.

While typical analysis, outlined in the data analyzer part of the stack, may provide beneficial insights into specific data and packages, other types of insights could be gleamed. Insight drivers could look across analytics to develop new product ideas. They could understand how current products could be more successful. Or they could tell companies where, when, and what to invest in.

Grow your own bot on your based on your data and personality  
[- Replika](#)



Artistic  
Replika



Tender  
Replika

## 5.5 Purchasers

As demonstrated throughout this paper, purchasers could be anyone – companies, governments, organizations, and even individuals. Reflecting on the start, allowing for individuals to monetize their own data and create wealth from their individual value through purchase, a new type of economic platform is born.

Anyone can now make a request for a specific type of data. From individuals and templates, to aggregators and packages, companies can now purchase and acquire specific data, and mining on individual users, groups, and segments. When users can own and benefit from the sharing of their own data, the possibilities skyrocket.

## 5.6 Payments

Microtransactions – facilitated through new and emerging cryptocurrency methods - can be utilized for low or micro fee transactions for fractions of cents to fuel this new economic platform. Previous methods of monetary transaction incurred higher cost fees or became unwieldy for banks or financial institutions to manage. Transactions at a fraction of a cent were not a viable model for financial institutions to engage in. However, with the emergence of cryptocurrencies and blockchain technologies, they are now becoming a reality.

Above, we looked at individual having their own currency associated with their data. We looked at the ability to monetize sets of data, as well as individual nodes. We speculated on data as an individual point in time, and data as a free-flowing facet reflecting longer time periods or simply ongoing.

Imagine if microtransactions were placed into different cryptocurrencies that reflected each individual. Payments could flow through a standard cryptocurrency, to a personalized cryptocurrency, and then utilized outside the system through conversion to fiat currency.

×

# 6.0

# Conclusion

The amount of data we generate is growing exponentially each year. Through IoT, new forms of connectivity, and smaller chipsets, these advancements allow everything around us to be connected. Simply put, the collection, amassing, and analyzation of data will not stop. **The decision of who will do these tasks, how it will be done, and who is in control is the logical next step.** Without openly discussing this, and without the intervention of individuals and governments who care about data privacy rights, companies will continue to siphon data and generate their own value based on what is the right of the individual. The European Union has started a move toward individual autonomy over data with [GDPR](#). As other countries will hopefully begin to follow this type of regulation, the next step becomes the ability to individuals to prosper from their own data and turn the value they create into personal wealth. If individuals do not do this, companies will continue to collect information in other ways, ignoring value attribution to the individuals who have provided it.

This paper favors that users are in control of their data. It further asserts that personal data should be an asset like a stock or a piece of real estate. Users across the globe should be able to turn the value created by their personal data into wealth. It argues that a regulatory body should be set up, and a new two-sided economic global platform, or platforms, begin to emerge that provides users the ability to connect and monetize their data to those who wish to use it to further research, products, policy, or even personal interest.

That said, this solution can be developed agnostic of policy. A data exchange can be created now, it's simply finding the right time, and collection of people, industries, payments, platforms, and economics to make it viable. We hope this paper has presented and outline of how that can be achieved and supplied inspiration for those who want to create a new north star based on privacy, freedom, and untapped economic value.

×

**Authors note:**

While this paper is not all encompassing on process and solution, it should provide a glimpse into the strengths that this type of reversal of information and data gathering can bring.

Questions can be directed to [joe.fletcher@raftcollective.com](mailto:joe.fletcher@raftcollective.com)