The New Age of Intelligence

(Electronic Edition)

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Preface to The 2020 Edition

Jonathan and I started on this book in 2014 and ultimately released it in 2016. Being involved in online privacy on a daily basis at cryptohippie.com, we saw where things were headed and decided that we had to warn people. Still, I had hopes that the progress of evil would be somehow derailed, at least partially. Sadly, that has not happened, and things are turning in very bad directions.

Accordingly, we've decided to make this book available to everyone for free. The threat is both serious and imminent. Furthermore, ignoring it empowers it. And so we want to spread this information as far and as fast as possible.

It's a short book, based on two decades of down-and-dirty experience. Please read it and share it.

Paul Rosenberg

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The View From The Castle

> *... to see what the rubes and the yokels are thinking about and what they think is going on and what they think the policy is.*
> – Daniel Ellsberg, on the use of the New York Times

If you've ever spent time in Europe, you've probably visited an old castle, and perhaps made it to the roof. And from that spot, you no doubt looked down upon the old city around it. Here's a view of that type, from a fairly small castle in a regional Italian town:

Many castle views are more dramatic than this one, but the point is the same: viewing the city from above is very different than seeing it from the inside. And this is the view that intelligence takes; it's the ruler's view rather than the peasant's view. And, truth be told, it can be an intoxicating view. “Drunk on power” is more than just a turn of phrase.

Very few of us ever examine the world from the vantage point of a ruler... the view from the castle. That, however, is the view the intelligence operator gets of the world.

And it's more than that; if you work in intelligence more than tangentially, there's no escaping that violence is a central component of the intel universe. The perspective of the ruler is one of using force. Call it “protecting the public” all you like, but it comes down to violence, and the view from the castle accepts that... nay, seizes it.

There has been an aristocracy of violence running through human cultures for a long, long time. In our own Western cultures it's on full display to those who look for it. We learn early that violence is associated with potency and nobility. This model is enshrined in the majority of movies and television shows, where both heroes and villains are defined by their use of violence.

The good violence of the hero makes men respect him and good women want him. The bad violence of the villain makes him worthy of punishment and contempt. And it makes foolish women want him. But in both of these cases, it is violence that makes these characters distinct entities and sets them apart from the gray and nameless masses. And so we learn that what defines us as distinct entities, whether bad or good, is violence.

As they arrive at mating age, boys learn to display their ability to use violence. This includes everything from sporting prowess to real fighting to adopting a tough-guy look. “Masculine” becomes closely associated with violence, in any of a dozen ways.

Likewise, girls learn to see an aptitude for violence as a sign of a male’s mating fitness. And a fit male desiring them makes them feel valuable.

So, there is an aristocracy of violence, and intelligence work pushes one directly into it. Over time, those in the castle accept a sort of camaraderie with other users of violence.

For example, many of us have noted the odd affinity that develops between policemen and certain criminals. In fact, it's a brotherhood of the violent.

To see from the castle is also to see the world stripped naked: To see the masses respond in full-throated emotion to propaganda campaigns you created on a whim; to see them willing to suffer and die for stories you spun of whole cloth. The people down below wouldn't want to see such things; they wouldn't want to know how much unreality they sanctify. But you, up in the castle; you know how manipulable they are; how eager they are to sacrifice themselves for your whims, provided you present them in the right way.

We may recoil at this (reasonably, in our view), but it's the way things are. The peasant doesn't want to know and therefore serves in ignorance; the men and women in the castle accept it and rule. And if we, the villagers, ever want to live according to our own values, we'll have to accept the truth of this.

This view of reality can be jarring to healthy, empathetic people. Nevertheless, this is not an unfair description, and from it we hope you can gain a better understanding of how and why power corrupts.

This is the view from inside the world of intelligence. It may not be so pronounced at some of the lower levels, but it gains with each step up the turret.

Commotion on The Castle Walls

As we write this, the men and women on the castle walls are stirring and disagreeing amongst themselves. The old guard is clinging to the old way and the new kids are pushing them to either accept a new way or make their way out the door. And while it's hard to call anyone in the castle “right,” the old guard is definitely wrong – the old ways have passed.

The 20th century, for both better and worse, is over. We need to let it go. We're twenty years into a new century and it's time to stop thinking the old way.

Data War is not like the Cold War, nor is it like World War Two. “Cyber attacks” are not like the siege of Leningrad or the invasion of Normandy. All such metaphors have been overridden by time and are wrong; they need to be

abandoned. They stand opposed to an accurate understanding of the current situation.

Furthermore, government does not operate by “checks and balances” and does not provide “equal justice under law,” at least not in cases that pertain to the powerful[1]. This much is visible to any intelligent person who isn't clinging to the peasant role.

Yet the old guard continues to treat the new era as if it involves nation versus nation, block versus block, and so on. They can't see that reality has changed.

For example, despite all the noise about cyber-attacks, most known cyber attacks over the internet, with the exception of Stuxnet and a handful of lesser known attacks, have been run by *private* organizations.

Yes, news-readers say “this attack originated in China,” but even when that has been true, the Chinese hackers probably did not receive a paycheck from their government. That's 20th century thinking, and as we say, it has been made false by the march of time. Private groups run cyber attacks, not state employees. Certainly some cyber attacks have been *funded* by states, though probably a minority of them.

Furthermore, private groups of that type do not simply disband when their state funding dries up. They continue to work, both for themselves and at the behest of other paying customers. Nation-states are only *some* of the players.

The news-writers and -readers (and the government agents who leak stories to them) are stuck in the vocabulary of the 20th century.

Likewise national distinctions have blurred badly. Even a famously “American” company like General Motors has stockholders situated all over the world, with allegiances to probably 150 separate states. GM has offices and sub-corporations all over the world. Their employees are located all over the world. Even their Board of Directors includes individuals from all over the world.

GM plays American when it needs government loans, and certainly works with (that is, funds) US politicians, but it's

[1] Nor to people who are almost fully powerless. They can be (and often are) abused without recourse.

not really an American company anymore. The same is true for most other major corporations.

But for all the commotion on top of the castle walls, the ruling class is coming to grips with the passing of the 20th century and the arrival of something new. The peasant class is not only slower to see this, but they are prevented from seeing it.

The View From The Castle

The castle-dwellers have concerns that the village dwellers don't. In particular, they face-off against other castle-dwellers whose power rests on violence, just as theirs does. And the castle dweller knows that such others are competitors. Fellow users of violence are always a threat. They compulsively compete among themselves to be the big man.

So the peoples of the castle and the village see the world very differently. Here are some of those ways:

The essential factor.

There are things that matter to the village and things that matter to the castle, and the things that matter to the castle take precedence. Chief among them is the necessity of maintaining power. Whatever laws exist are bent or broken when they affect the position of rulership. In the US, we've seen George W. Bush calling the constitution “a goddamn piece of paper” (or at least treating it so), Lincoln suspending habeus corpus, Woodrow Wilson jailing 10,000 people who dared speak against his war, and Franklin Roosevelt forcibly relocating 110,000 people of Japanese ancestry. And these are just the more famous cases; it's hard to say which modern presidential administration *didn't* push the IRS to attack their political opponents.

The central crime that cannot be tolerated by the castle-dweller is *lèse-majesté*, which is to injure the honor of the ruler. In modern governments this stands against the concept of free speech, but when push comes to shove – and please note the examples above – constitutional freedoms are quietly abandoned. Also please notice that the people of the village, always given a double-dose of fear at such times, are quite willing to be accomplices in these events by pretending that they were no big deal.

In their hearts, they know that rulership takes precedence over laws, and when afraid they accept it and pull out excuses for it.

And bear in mind that this affects all people of unusual power, as was beautifully illustrated in the film, *The Godfather*, when the powerful studio executive, Jack Woltz, declares that, “A man in my position can't afford to be made to look ridiculous!” Power is fundamental, laws are subsidiary.

So, there there are laws, and then there are necessities.

An early 21st century example of this has been the Ross Ulbricht (Silk Road) trial: Ulbricht committed no violence, nor did he personally sell any drugs, beyond, perhaps, and few mushrooms at an early stage of his Silk Road project.

What made Ulbricht an enemy of the castle was twofold: First, that he made the War On Drugs look ridiculous by building a system that delivered peer-reviewed drugs, honestly and safely, to the masses. Secondly, that he made commerce-without-state a practical reality.

Ulbricht, then, undercut both mandatory compliance and a large sector of the enforcement complex. Because this was intolerable, murder charges were manufactured and a rigged trial was held. Ulbricht was given two life sentences plus 40 years, without the possibility of parole.

This “justice” had nothing to do with keeping people safe. In fact it made them less safe. It had everything to do with Ulbricht making the rulers look ridiculous.

Some members of the governing class may understand this and others may simply be acting upon base instincts (pulling out legislation and rulings for justification), but in either case, what lies beneath is the offense of lèse-majesté.

Compliance.

The core operation of government – of *any and every* government – is to obtain the compliance of the masses. Without that, no government can stand, no matter how fearsome they may be. As Manuel Castells writes in

Communication, Power and Counter-power in the Network Society:

> While coercion and fear are critical sources for imposing the will of the dominants over the dominated, few institutional systems can last long if they are predominantly based on sheer repression. Torturing bodies is less effective than shaping minds.

The purpose of lèse-majesté is the maintenance of compliance. And that, in the 21st century, is the primary role of the state.

Remember, please, that however jarring these concepts may seem (most of us, after all, are villagers, and the children of villagers), we are taking the view from the castle here... and what we're describing *is* that view.

Readiness to fight and die.

Any good castle-master must be able to mobilize the villagers to fight and die. Knowing that the other castle-holders are his competitors, and knowing that he can't fight them alone, the intelligent castle-master knows that he needs willing fighters. Since several thousand years B.C., this has led the castle class to promote continuous themes: The sanctity of the homeland, independence (under the castle-holder, of course), unity, and so on. Furthermore, the other castle-dwellers must be seen as threats; why else would the villagers fight them?

Control the narratives.

In order to keep villagers compliant, nothing is more important to control than the stories they live by. Every serious castle-dweller realizes this. That's why kings always kept a closely aligned intellectual class. It's why they authorized priesthoods and made deals with religions. And it's precisely what we've seen in our times, from the CIA's Operation Mockingbird to the 2016 Clinton presidential campaign with its scores of helpful “journalists.”

The stories that feed the minds of the masses must remain aligned with the interests of the castle. There was, perhaps, no greater proponent of such tactics in the

20th century than the author of this passage, Edward Bernays:

> The conscious and intelligent manipulation of the organized habits and opinions of the masses is an important element in democratic society... Vast numbers of human beings must cooperate in this manner if they are to live together as a smoothly functioning society.[2]

This is, further, something that the serious historian comes to recognize, as is seen in this passage from Will Durant's *Our Oriental Heritage*:

> The state, in order to maintain itself, used and forged many instruments of indoctrination – the family, the church, the school – to bind in the soul of the citizen a habit of patriotic loyalty and pride. This saved thousands of policemen, and prepared the public mind for the docile coherence which is indispensable in war.

Rubes and yokels.

This characterization – hearkening back to the quote at the head of this chapter – is what castle-dwellers think of villagers, whether they say it publicly or not. Indeed, it's what their incentives drive them to think. Whether it's to see them as “unwashed,” “ignorant,” “the people of flyover country,” or whatever, the incentives of castle-life, as we've outlined here, *require* the villagers to be treated as nameless masses... as stupid, collective entities.

As we enter the 21st century, these things are as true as they ever were. As we were preparing this book, another little evidence popped up in the Podesta emails, where we see this[3]:

> … we've all been quite content to demean government, drop civics and in general conspire to produce an unaware and compliant citizenry.

[2] From his book, *Propaganda*.

[3] https://wikileaks.org/podesta-emails/emailid/3599#efmARJAWn

The view from the castle is always thus. It behooves the villagers, in our opinions, to face up to it.

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Intel, The New Top Dog

> *Google is getting [White House] and State Dept. support and air cover. In reality they are doing things the CIA cannot do.*
> – Fred Burton, former State Dept. security official

The passage above, from a recent Wikileaks revelation[4], shows the way things are now. Again, the 20th century is gone; "the way things have always been" has changed. And the way they are now is that data-based intelligence is the new power in the castle.

Google, very obviously, has been grafted into the ruling class. And with good reason: Google knows who's doing what – and why – for literally billions of people, and more every day.

Facebook[5], for the same reasons, is also a new member of the ruling class, save that they sit a rung or two below Google, whose boss, Eric Schmidt, has spent a lifetime among the ruling class and has carefully brought his company to the top position. Facebook's boss had fewer skills of this type.

Consider the power of Google: Being a nearly universal search engine (3.5 billion searches per day), combined with deep surveillance of their users, they know everything each

[4] February 27, 2011, Wikileaks Global Intelligence files, archive.today/sjxuG

[5] Facebook has 3 billion active users, who are extremely heavily surveilled. So, while we maintain that Facebook stands below Google in power and influence, it remains a very, very powerful organization, and a crucially important one to anyone in power.

of the users (personally) search for. They keep records, or summaries of such records, more or less forever, building up long histories. They've employed psychiatrists, analysts and data scientists to build evaluation programs.

They also operate YouTube, where 2 billion surveilled users watch more than 5 billion videos per day.

On top of that, Google runs Gmail, another “free” service that deeply surveils its users. In this case, Google stores and analyzes every email their users send *and receive* – including drafts they don't end up sending – keeps track of all their contacts, the contacts of those contacts, and so on, several layers deep. And Gmail has 1.5 billion users.

Furthermore, Google delivers custom content to each of its users. What you see when you log into YouTube and what your neighbor sees are different; each sees a personally customized page.

Google, then, doesn't just know everything about its users. It's also able to guide their thinking by delivering customized content.

So after considering the stunning power of Google, consider this as well: Any castle-dweller who didn't incorporate this into their power structure, *prominently*, would be an abject fool.

And so, this is precisely what's been happening for some years. And it was seen in emails obtained under a 2014 Freedom of Information Act request[6]. In these emails, it can be seen that Eric Schmidt and Sergey Brin of Google were on a first-name basis with General Keith Alexander, then the Chief of the NSA. And in one passage Alexander calls Brin “a key member of the Defense Industrial Base.”

Google then, in the eyes of encastled, is a key factor in their ability to use power... including military power.

Google, of course, is not alone in surveilling internet users. The US National Security Administration – the NSA – stands alongside them; more effective in some ways, and perhaps less effective in others.

The NSA has been gathering up raw internet traffic, in bulk, since at least 2003. We know this because a whistle-blower revealed it. But the associated trial was brought to nothing,

[6] archive.today/V0fdG

George W. Bush gave immunity to all the cooperative telecom companies, and even Edward Snowden's unmistakable proof changed nothing. (Laws are for villagers, not for castle-dwellers.)

The NSA, however, unlike Google, is a division of the US Department of Defense, just like the Army or Navy.

The Power of The 21st Century

The castle is always concerned about power; where and how it is used is always the first consideration. And so, in a new century with a very different power-structure than the one previous, the castle will major on the new power and leave the old ways of power to idle.

The power of Google, Facebook, the NSA and a flock of others is a new one, and a very potent one. It allows them to see and control the minds of the masses.

Consider the smart phone. No matter where you go in the modern West, you'll find people pecking away at their little hand terminals. Convenient, they are... status symbols, they are... but they are also something else: They are surveillance machines... persistent and deep surveillance machines. Android phones, now the top sellers, feed directly into Google, and indeed cannot be used otherwise, save perhaps by a few hackers.

Furthermore, the entire cellular communication system is built so that a user's location is always known and recorded. Who they call and when are also permanently recorded. These things are not add-ons to the system, they are central components of the system.

On top of that, nearly smart phone apps harvests data from the user in a steady stream. How else could such complex programs, requiring tens of thousands of dollars to create, be distributed for free, or nearly free? So then, as has been rightly said by others, a smart phone is a surveillance device that also lets you make phone calls.

The amount of data that comes from such devices is awesome: Who you are, where you are, who you talk to most, whats on your mind, what's on their mind, what are your financial plans, what are you work and family plans, and more... all that is “you” is sent, promptly and completely, to the people who have software on your phone.

And so, the raw material for deep, personalized manipulation is already in the hands of the castle's new partners in power. And make no mistake on this:

> A party that has an informational advantage over other parties can use it with minimal consequences.

“Informational advantage,” therefore, is *the* power of the 21st century.

Information has always been a valuable commodity, but never has it risen anywhere close to the 21st century level. And while the intentional use of information as a weapon seldom makes it to public discourse, it has not been forgotten by intelligence agencies and criminals. Such aggressive uses of information include:

1. Discredit and impersonate people to change their course of action and the actions of others.
2. Attack people via “nerve war” and/or subversion.
3. Falsification of public perception by false evidence and false leaks.
4. Falsification of public perception by selective and incomplete presentation of evidence and leaked material. (Intentional “leaks.”)
5. Changes of perceived time order. Did someone behave in a hostile manner before an action or after an action?

And if you're tempted to doubt that such things are actually done, remember that there were multiple slides in the Snowden documents, teaching surveillance operatives how to destroy the reputations of individuals[7].

Is The Manipulation of Billions Possible?

This is the place where denial kicks in. Denial in this case is understandable, since the picture we're painting has ominous implications.

Alas, this level of manipulation is possible, and for a simple reason: it is automated. As we all know, the prices of both computing power and storage have been falling, steadily and precipitously. It's affordable for anyone with a job to store

[7] http://www.freemansperspective.com/governments-manipulate/

many terabytes of data, and less than a measurable expense to a mega-corp or a government. Neither is searching through that data difficult or expensive.

The bottom line is this: So long as it's computers deciding who to manipulate and how, it can be obtained dirt cheap.

And we do have confirmation on this. Facebook, for example, ran a large experiment[8] in early 2012. This experiment, run on 689,000 of its users, sought to determine whether they could tweak the news feeds these people saw (the headlines in particular) and purposely change their emotions. And it turned out that they could… and that *those emotions spread to their friends*.

Google was caught planning worse[9].

And as to whether these new powers are actually doing this, first consider that question from the vantage point of the castle: Is there anything that would restrain them from doing this? Wouldn't it greatly increase their power? Wouldn't the other castles do this without hesitation?

We all know what the answers are. If such things can be done, they will be done, and almost certainly are being done already. We only hesitate before naming the obvious conclusion because it is troubling. Again, this may be understandable, but denial leads us to dark places.

We suppose that nearly every reader of this book will be familiar with the NSA's Utah data center. To get a sense of its scale, consider that its electric bill comes to $40 million per year, and that it uses 1.7 million gallons of water per day[10].

This photo (courtesy Wikimedia), shows just one of Google's many data centers:

[8] http://www.theatlantic.com/technology/archive/2014/06/everything-we-know-about-facebooks-secret-mood-manipulation-experiment/373648/

[9]https://freemansperspective.com/googles-mendacity-the-selfish-ledger-decyphered/

[10] https://en.wikipedia.org/wiki/Utah_Data_Center

So, while seeing the world as it is requires courage, that's something we assume you wish to do. And so, we will proceed.

Shockingly detailed knowledge is available on several billion people, and especially on Westerners. Furthermore, computing machines capable of storing and using this information are not only possible, but are already in place and functioning.

The question then, is how effective they are. The answer is “very effective,” and we know that because they are simply automated versions of things that have been done since the inception of government. You can fill in your own examples of government manipulation – we’ve all seen them – so the conclusion is that manipulations from the castle work, and only too well. Adding massive new capabilities to them won’t make them less effective.

A far larger set of proofs, however, are simply Facebook and Google's revenues, which currently run at about $240. billion per year. That's a lot of proof.

The simple truth about manipulation is this:

> If we know enough about how you see the world, we can change your perceptions of our

> actions. And then we can manipulate what you do.

Every con man operates on this premise – he or she first seeks to know your patterns of perception, and then uses that knowledge to manipulate you.

Manipulation is about shaping your environment. If I know what motivates you, I can change your environment based upon that knowledge and induce predictable actions.

If you know what I'm doing to you, *and for what purposes*, you will be able to adapt to the manipulation and undermine it. And that's why the people who know about this subject aren't talking.

To be very blunt about it, to manipulate well is to hijack another person's free will. When perception is shaped by a manipulator, he will shape your reaction to it. And, sadly, this is what's now being done to nearly every person in the West. The new world of data-based intelligence has delivered this capability, and no castle-dweller worth the name would ever disregard such power, or fail to use it above all other powers.

This is why we've maintained that it is crucial in our time to willfully create yourself. Because if you don't, someone else *will* do it for you.

The War of All Against All

Thomas Hobbes was an English philosopher, famous for his book *Leviathan,* in which he claimed that life without government would inevitably lead to a “war of all against all,” and that life would be “solitary, poor, nasty, brutish, and short.”

This kind of dark world doesn't actually exist between individuals, but it does exist between power-based hierarchies, like castles and castle-dwellers of all types.

Furthermore, this dark model has been taking over the field of intelligence in the 21st century. In economic terms, we would say that intelligence is turning into a *zero-sum game*: There are only so many pieces of pie, and for me to get more, you have to get less.

Here's why this is happening:

Certain actions can only be taken by a certain number of people at certain times. For example, buying stocks at the current price. When I buy, I am also changing the market, altering the price the next buyer will pay. This is why it becomes so important to assure that valuable information is known only to a certain few; any use of that information lessens its power.

So, if we have information that others don't have, as well as the means to make sense of it, our actions are more likely to be successful. But if everyone knows the same things we do and has the same sense-making capabilities, there's much less profit in that information.

The power position, then, is to have exclusive information. But to know your information is exclusive, you must also know what the other players know. Knowing what they want to do with their information would be helpful as well.

If you know who else has certain information and a certain goal – and if they don't know – your actions will be more successful than theirs: You can anticipate, they can't.

The more information you have, the easier it is for you to understand, value, classify and incorporate the other information you have. So, the castle dweller wants to know everything, and to assure that everyone else knows only what you want them to know... and that most of that should be misinformation.

We think you can see how this turns into an information war of all against all on the castle level.

20th century intelligence was, by nature, considerably less Hobbesian and tended to diffuse conflicts. For example, the intelligence departments of the various powers were nearly always in contact via back channels. They may have traded both truth and lies, but they did so on a regular basis. In effect, they were dancing in the dark with only one or two fingers touching. They were forever trying to feel where the other was moving and guessing at what their intents might be. As a result, they often stepped on each other's toes, but tended to back-off afterward. This created small conflicts, but also avoided larger ones. Overall, intelligence was humanized and included professional respect.

In the 21st century, the back channels are vanishing and Big Data (the process of using massive data flows; more on this

later) is taking over. The old, slow and clumsy method of “dancing in the dark” no longer diffuses conflicts.

During the cold war, the players always leaked some of their successes. But in a true information age, you gain the best position if no one knows anything about you at all. No one wants their capacities known, and ideally no one knows that they exist. As a result, intelligence work is moving ever deeper into the shadows.

But in addition to the hiding of intelligence power, we are experiencing its individualization. By that we mean that there are many more individuals who can wield intelligence power. During the cold war, few people could make final decisions and use the agency's power. In our time, more and more people are in positions to use that power directly... and all face incentives to hide their abilities.

So, in our new world of intelligence, the nature of information pushes everyone into conflict with everyone else, and that includes the individuals inside intelligence agencies and mega-corps like Google and Facebook.

Other New Factors

Before we proceed, we'd like to note some fundamental factors of the new age of intelligence:

1. An increase of information means an increase in the value of espionage. Because of this, espionage will become a normal mode of operating, and one that will become increasingly dominant.
2. The future will become increasingly complex, because of automated manipulation.
3. The mediators of networks have the highest positions of power and will surpass even what used to be called “the money powers,” who sat at the pinnacle during the last half of the 20th century. And, just as businesses had to maintain a close relationship with commercial banks in the 20th century, they will have to keep a close relationship with network mediators in the 21st century. (We'll discuss networks in the next chapter.)
4. Anonymity and encryption are the new ways to secure your property; making it exclusive. They are the equivalent of the lock on your front door.

5. For physical objects, “where is it?” is a fundamental factor. For information, the equivalent fundamental factors are “who knows?” and “who knows who knows?” Without these, nothing can be acted upon, just as physical objects cannot be acted upon unless we know where they are.
6. Until recently, information was hard to use. Typically, it was recorded with paper and ink, and read by humans. Now, handling information is easier than handling matter.

Taken together, these factors explain a great deal about the new world of the 21st century. It is a world built around a different type of power.

Weapons, Offensive and Defensive

The balance between offensive and defensive weapons has been crucial in shaping human organization. When offensive weapons can overpower defensive weapons, the result is centralized, hierarchical organization. When defensive weapons can overpower offensive weapons, the result is decentralization. Professor Carol Quigley discusses this in his *The Evolution of Civilizations*:

> For any government to function, it must be able to know what is happening at a distance, to communicate its orders, and to enforce obedience to them. The enforcement of obedience to orders cannot go further than the limit of the superiority of offensive power over defensive power.

In the 20th century, offensive weapons like artillery, aircraft, gunboats and missiles had a massive advantage over defensive weapons like firearms. In the early middle ages, however, the conditions were precisely the opposite, as Quigley goes on to explain:

> ... anyone who had a castle could say “no” to any order and could not be forced to submit. This means that every such castle became a nucleus of political independence and, since there were thousands of such castles in Europe , it meant that Europe was divided into thousands of independent political units and

> that centralized political power over any extended area was impossible.

The defensive weapons of the information age are encryption and anonymity technologies. Encryption prevents others from understanding our information; it gives us exclusivity over information and assures that only those we wish to understand it can actually understand it.

But while encryption is a powerful tool, it is not enough in itself. If public networks are used, the network mediators retain access to all metadata – all the data about that data – which is an extremely powerful tool itself. If I know who you talk to, when, and who those people talk to... and if I also know the volume of information you all send to each other, and the timing of that information... I can probably glean the information I need about you (like your social graph), even if you use unbreakable encryption the whole time.

To counteract the gathering of metadata, additional tools are required. Those tools include darknet technologies, high-latency communications, and the physical delivery of data.

These tools are inexpensive and easy to use, but in order to use them, individuality and will are required. No hierarchical authority in an information age will encourage people to protect their data from them. In fact, they can be expected to undermine that ability whenever they can.

Acting in one's defense has been conditioned out of the modern populace, and people fear using even simple encryption. It is fine if someone provides it for them, but they fear obtaining it and using it directly.

Strangely, the situation really does resemble The Matrix (the 1999 movie): Those who are able to handle reality can protect themselves, but those who cannot exercise their wills are “lived” by the network mediators, and turned into Agent Smiths where and when the mediators wish.

How often it is, then, that the heaven or hell of human life comes back to simple yet profound virtues and vices.

Real Life At Intelligence Agencies

A few words are in order to explain real life at intelligence agencies. Let's begin with this: If you know intelligence only from the outside, please, please, please get James Bond out of your mind. Bond makes for fine entertainment, but 007 is

as nearly as far removed from actual intelligence work as the Man In The Moon is from aviation.

Furthermore, there are many intelligence agencies, and by no means are all of them organs of states. Large commercial and even religious organizations have their own intelligence agencies. We'll focus on state intelligence agencies here, but they are not the only kind.

To understand any intelligence operation, you must first understand its motives and its constraints.

State intelligence agencies provide a knowledge service, to a very specific market. It is a relationship between producers and consumers. States create multiple intelligence agencies so that those agencies compete; this provides better information and prevents a takeover by a single agency. Consider what might happen if there were one intelligence agency only: That agency would have a monopoly on all the most valuable information, and would be in a prime position to take over the government.

It is important to understand that what intelligence agencies produce is proprietary business information. When an agency briefs the President, it doesn't tell him or her how it knows these things, only that it knows them. This person is also a customer of their competitors[11]. So, agencies do not reveal their sources and methods; they will protect them above all else.

If a piece of information would lead to a clue about your source or method of obtaining information, you don't give it to anyone, including your consumers, unless and until you have an alternate legend for why you know it[12].

Intelligence agencies sometimes know far more than the President can act upon. So, they protect sources and methods as a matter of course, and this overridden only in exceptional cases.

In the end, the practice of intelligence is about information dominance. It's often desirable to have your agency penetrated by an opposing agency, provided that you know about it. If you captured the counter-spy, you would gain

[11]There is also the issue of plausible deniability.

[12] A prime example of this is “parallel construction,” by which the NSA leaks information to other agencies, which then create plausible provenances for that information.

little and your opponent would gain valuable information about your defenses. Cases like this are not uncommon. In fact, most of what intelligence agencies do is addressed to each other's intelligence agencies.

In addition, most of the information taken in by an intelligence agency is not secret information. Of all the information that makes a Presidential briefing, 80% or more comes from public sources. 20% or less comes from covert sources.

It is interesting that most intelligence agencies were not traditionally involved in physical actions. Their job was not to change the world but to gather information.

Information gathering and political action conflict with each other. Information gathering requires that you are not discovered, and that you do not dilute your information. When you interact with a system, however, you change the state of that system. After that, whatever you read is partly what you wrote.

It is also of some interest that US intelligence agencies were built by the investment banks, since no one else knew how to do intelligence work. Bill Donovan, who ran the OSS (precursor to the CIA) during World War II was a Wall Street lawyer and hired from his own back yard. Intelligence, far more than is acknowledged, has been a nepotistic business. The modern question is whether or not the tech startups have joined in this legacy. And in many cases, we know that the answer is “yes;” American tech companies – especially the most successful ones – are joined to the US intelligence complex[13].

When InQTel (the CIA's venture capital unit) puts millions of dollars into new start-ups, what happens to those employees? Do they stay where they are or do they become something else? Is a “commercial entity” like Booz Allen, 99% of whose business comes from the US government, truly a private firm? Is it anything but yet another spy agency?

Furthermore, technology and intelligence agencies come together via investment bankers. NSA wants the geeks and

[13]Which begs the question: Did they join with intel because they were successful, or did they become successful because they joined with intel?

CIA wants the CEOs. The West Coast and Langley[14] come together via the Eastern money elite. CIA agents, for decades, have traveled under commercial cover, first via investment banks and now, seemingly, under the cover of tech companies. That gives them access to both money streams and information streams.

What we can expect in the future, by virtue of this mixture, is that companies and private organizations will see an influx of government operatives. They will act as intelligence agencies on their own, may get involved in wet work[15], and much of the national intelligence apparatus will become a consumer, not a producer. The head of the FBI kept an office at Facebook for a good while (and perhaps still does)... he's a partner.

[14]A euphemism for CIA headquarters, located in Langley, Virginia.

[15] Meaning assassinations.

3

Coalitions of The Connected

Western states are turning increasingly into network societies and becoming characterized by multi-level governance...
– George Dimitriu and Isabelle Duyvesteyn, *The Future of Intelligence*

Probably the most defining aspect of the 21st century is the recognition of the "network" as not only a metaphor, but a descriptive term and constructive principle. While we previously thought about the world in terms of "blocks," and "nations" that lent themselves to flow charts and political tomes, we are now seeing fluid interdependencies and influences between entities. The network has become the gestalt of both social and technical systems. This is of great importance for both the organization of power and the projection of power.

In the last few decades power has increasingly been organized in networks: Social networks of influencers, extra- and supra-national networks of governance and networks of power brokers. We've seen the creation of organizations that operate as networks to protect the climate, mediate access to natural resources or support trade.

These constructs are not monolithic hierarchies or temporary expressions of inter-governmental alliances like those set up in the 19th and 20th centuries. Rather, they

continue their existence as fluid and often undefined interrelationships between decision makers, media, influencers and profiteers. They have developed a life of their own, independent of their creators in government and any initial legitimization they might have had.

Network has also been discovered as the descriptive and analytical concept for how power can be projected… by exploiting the dependence of people on networks. Be it communication, electricity distribution, food supply or banking, the modern world is built on webs of entities that are able to provide services only in cooperation. These network have made a more efficient and globally distributed economy possible... an economy that we frankly depend on for our lives or at least for our lifestyles.

Networks have become the dominant model because of their efficiency, reliability, and their indirect (often invisible) control. They simply work better than the 20th century's monolithic governments, and they will undermine them in the years to come.

Let's consider just one, small example of the speed, efficiency and power of networks, as opposed to governmental processes: The ubiquitous credit report.

More or less every person of the middle class or higher (at least in the West) has a credit report that drastically affects his or her life. In fact, the credit report has more effect on the average person than do most laws, and certainly more effect than the results of the next election.

Yet control over the credit rating agencies belongs primarily to the major banks who acknowledge and fund them. And so, credit agencies are controlled by networks of power, not by a single, defined entity.

If, next year, the ratings agencies decide that credit ratings will be cut for citizens who fail to insure their property according to their standards, millions of people will be pushed into upgrading their insurance. Ads will suddenly appear, warning people to “upgrade your insurance now, or lose up to 50 points off your credit score!” Already, credit ratings have forced millions to keep their debt load up, because having no debt at all hurts your credit rating.

Credit rating agencies are but one example of many, but they make the point: Power applied through networks is

faster, more precise, is nearly immune from repercussions, and leaves the users of power fully outside of public view.

It should be no surprise, therefore, that building new networks of power is the ruling fetish of the age. Indeed, the biggest pieces of legislation – NAFTA, the Trans-Pacific Partnership, Obamacare – have been precisely those that created new networks.

So, power no longer seeks the state as much as it does networks.

It should also be noted that networked power is resilient. Not only is it more or less invisible – there's no face to blame when credit standards change – but its power rests on the dependencies that our complex civilization has introduced. Given the fact that an increasing supply of goods and services, even access to work, is only available and mediated through networks, modern society has created a situation of inertia in which any change is associated with nearly insurmountable cost.

Unknown and certainly unwilled by the village people, we have been brought into a situation of path-dependency where the decisions of the castle-dwellers have shaped a future that is both unfathomable for most and too all-encompassing to change.

That said, networks of power and enforcement through networks is not without alternative. Counter-cultures (which exist and will continue to form) deliberately take back control of dependencies and hidden influences. But this alternative is not without cost, it requires that those participating in alternative models must break with social expectations. Instead they require personal risk and the acceptance of challenges.

How Network-Based Enforcement Works

Let's examine the fundamentals of using network-based power, beginning with two introductory points:

1. Both civil society and market are networks, not command-and-control structures. Personal relationships and low-level commercial relationships are decentralized... and they reach everywhere. Furthermore, these networks cannot easily be removed; attempts to do so (by, for example, the

socialist states) have failed miserably, often involving mass starvation.

2. These networks of civil and market relationships, however, do feature hubs; that is, nodes that mediate between nodes. And we are all familiar with these: banks, insurance, welfare, electrical distribution, transportation systems, and so on.

So, once the castle acknowledges this to be true, adapting these networks to transmit power – enforcing the castle's will via networks – requires these actions:

- **Strengthen society's reliance on the hubs.** Undermine alternative implementations of systems, increase the economics of big networks, amplify network effects through selection of implementation by key players.
- **Regulate the hubs.** This is done by getting the hubs to support indirect regulation. This is done, for example, by pushing banks to accept anti-money laundering reports, know your customer rules, and so on. It is done in dozens other fields by defining product standards.
- **Incentivize the hubs.** That is, give the hubs special benefits for supporting regulations: Grant them tax breaks, status, access to inside information, protection from foreign competitors, offer to do favors for them, and so on. The applications of this are myriad.
- **Punish and disconnect disobedient hubs.** The bank that doesn't comply has its banking license revoked. The business that produces products that don't meet the new standard is wide-open to lawsuits, and so on, at great length.
- **Produce propaganda supporting the regulatory regime.** This is done every day, via media networks, educational systems, and so on. It doesn't take people long to see what the system wants them to do and will support them for doing. And so, they rely upon the regulatory regime, portray it as righteous and even punish those who question it, treating them as if they were crazy.

Networks of power are easy to use, deliver power directly and discretely, and are self-reinforcing. And again, castle-dwellers would be abject fools not to use this power.

Using Networked Power

There are two basic actions whereby individuals and groups gain special power over networks:

1. To constitute networks. To set them up, program them (set the rules of operation), and to reprogram them.
2. To connect networks. To join, separate and ensure the cooperation of different networks. To set up strategic cooperation. To combine resources and fight competing networks.

If you create a network, you get to create it your way; you get to put key pieces (nodes) where you want them and key people where you want them. If you connect between networks, you become a powerful gatekeeper.

This is true for networks of services and machines and it is true for networks of people and corporations.

Manuel Castells of the University of Southern California describes the components of modern networks in his paper *A Network Theory of Power*:

> Network-making power is in the hands of a small number of conglomerates and their surrogates and partners. But these conglomerates are formed by networks of multiple media properties operating in multiple modes and in multiple cultural and institutional environments. And multimedia conglomerates are intertwined with financial investors of various origins, including financial institutions, sovereign funds, private equity investment firms, hedge funds, and others.

He goes on to say that the power holders are “networks of actors exercising power in their respective areas of influence through the networks they construct around their interests.”

Castell's work explains the race to setup extra-governmental networks of power: If you create the network, you gain long-term and oversized power within it. And the past two

decades have been prime time to create such things: the internet has come of age, the public mind has been at a peak of unquestioning compliance, and governmental cooperation has been easy to attain.

Moreover, once a network is created, the power behind its creation is obscure. And in daily operations, the gatekeepers are unknown as well. And so, we stand amongst elaborate networks of control, but we know almost nothing of the people and organizations that use this power.

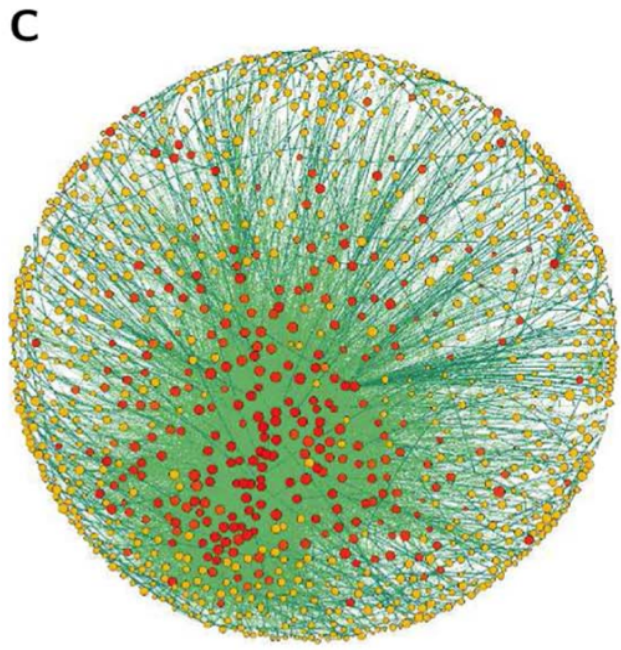
One close examination of these networks has been made, in 2011[16]. Some of its results were illuminating. For example:

> … we find that only 737 top holders accumulate 80% of the control over the value of all TNCs.

“TNCs” are trans-national corporations. So, just 737 entities control 80% of nearly all the largest corporations.

In the image below (from the aforementioned paper) we see 1,318 nodes and 12,191 links displayed. And please note that the circular nodes are sets of companies *in which every member owns directly and/or indirectly shares in every other member*. That's a lot of interconnection, which allows for nearly invisible control through boards of directors.

[16] Vitali S, Glattfelder JB, Battiston S (2011) The Network of Global Corporate Control. PLoS ONE 6(10): e25995. doi:10.1371/journal.pone.0025995



Uncomfortable though it may be, what has risen in this 21st century has been a separation of the naïve from the elaborate.

Networked power is *not* democratically controlled, and in the 21st century, everyone is *not* on the same level of power. Furthermore, the decisions that matter are *not* made in Parliaments. Journalists, activists and politicians are finding that they are far less relevant than they had believed, even though most don't know why.

In this new situation, the state is mainly important as a provider of societal inertia. Normalcy must stand, expectations must remain within acceptable limits, there must be no “outside” to run away to. By providing that, the state and its friends remain important.

A financial acronym that has arisen in recent years applies well here: *TINA: There Is No Alternative*. And so, as there has been no practical alternative to Wall Street for retirement funds, the role of the state is to see that there is no alternative to itself for human organization. So long as

that belief reigns in the minds of the populace, networked power can reign inviolate.

To close this chapter, we turn to Alan Bloom, and a passage from his *The Closing of The American Mind*:

> The most successful tyranny is not the one that uses force to assure uniformity but the one that removes the awareness of other possibilities, that makes it seem inconceivable that other ways are viable, that removes the sense that there is an outside.

This, and little more, is the role of the state in the 21st century.

4

The Runaway Train

> *If information is power, then those who master this digital chaos first, and derive meaning from it, will likely gain critical advantages. Intelligence professionals, whether in business or in service to the state, are therefore in a silent race to develop tools for mining and analyzing growing volumes of swiftly moving information and then to use it...*
> – Jennifer Sims, *The Future of Counter-Intelligence*

For some time, we've been telling anyone who would listen that the internet was becoming the greatest surveillance system in history, metastasizing into the darkest dream of any tyrant of any age. Yes, the internet has been a great tool of emancipation, but hucksterism, foolishness, and the never-ending lust for dominance on the part of the castle-dwelling class has over-built the emancipatory function of the internet, and is slowly driving it out altogether.

The crucial thing to understand about this is that the lords of network power – the lords of data-derived intelligence – face a variety of all-or-nothing situations. They can either ride this train faster than anyone else, or they can be made irrelevant.

And so the braking mechanisms have been bypassed and a digital arms race is raging.

In the paper quoted above, Ms. Sims continues, noting that “It is not clear that all states win in the big data world.” To which we will add, *it's certain that neither all states nor all networks can win*. Like all battles between castles, the winners enjoy conquest over the losers.

Game Theory and Surveillance

Game theory studies how rational players behave with each other in certain situations. The situations include factors such as “can they communicate with each other?” “What kind of knowledge do they have about each other?” and so on. It seeks to learn what strategy a rational player would choose in each game and situation.

The cold war between the US and the USSR, for example, looks like this when examined with game theory:

The Russian plan was to use nukes only against military targets, and especially the nuclear facilities of the United States. Their goal was to decapitate and demobilize the US military. Population centers were not specifically targeted.

The United States however, chose a strategy of mutually assured destruction, meaning that in any situation both sides would lose. Their reasoning, straight from game theory, was that no rational player would start a war because he would seal his own fate. So, the situation was limited to only two choices:

1. Don’t start a war and you can rule your population as you wish.
2. Start a war and you no longer have a population.

This seems to be what the US communicated, but what the Russians heard was closer to, “the United States is willing to kill hundreds of millions of people to save itself.” This seems to have been a shock to the Russian generals and actually triggered leadership changes in Moscow.

The Russian response, so it seems, was to make sure that there was no way that the Americans could ever strike first or retain a secondary capability. That is what led to the Cuban missile crisis and the strategy of using submarines as missile launch facilities.

What this strategy did was not just communicate that it was stupid to attack, but to increase vigilance to a dangerous

level. That this strategy worked is not attributable to game theory, or planning, but to humanity. During perhaps half a dozen incidents, the only reason why missiles weren't exchanged was that people ignored the strategy. They placed their morals above their orders. If theory would have been followed, few of us would be left to analyze it.

Game theory has advanced since that time, of course, and it now includes factors such as chains of command, communications system, and the integrity of messages. Still, theories seldom deal very well with the complexities of human life.

The argument for global surveillance from game theory is this:

1. The technology for global surveillance exists.
2. Due to that existence, somebody will use it.
3. That somebody will have an advantage over everyone who is not using it.
4. Therefore, we must do it.

The rational strategy on this playing field is to engage in mass surveillance. That's the only way to mitigate the harm that might be done to you.

So, every capable party, if they follow a narrowly rational strategy, must join the arms race and maximize their use of data-based intelligence, and as secretly as possible.

Dominance was once an issue of producing more cannons; now it's about who knows what about whom. We are creating a world that is almost entirely centered on espionage and intelligence services.

Even in the field of commerce, to compete in the future will require people to treat their business as an espionage company. And since so many people are ethical wrecks, they will soon enough turn from the ethical position of defensive tactics, to the far less ethical position of offensive tactics, hoping for a bigger score.

Big Data

Cyber weapons are probably the best strategic weapons that exist. For one thing, cyber weapons have an enormous range of delivery. In theory, at least, they can be released almost

anywhere and reach almost any point on the planet in seconds.

And because most of the developed world's critical infrastructure is highly dependent on networked computers, that infrastructure is vulnerable to cyber weapons. Switching off networked computers that control critical infrastructure would disrupt an entire country, and in a targeted way.

For example, you could disrupt communication, power, transportation, media and so on. Then, the population might do your killing for you. In the scenarios for larger cities, the result is about a 90% population reduction within a few weeks, if things cannot be fixed. Cyber-Weapons have the additional property of being hard to trace to the user, which allows for a low-intensity undeclared cyberwar.

Furthermore, systems already controlled by an enemy are hard to detect, raising a sword of Damocles above each technologically advanced nation and introducing leverage that is not spoken of. And that makes cyber weapons, in theory at least, a very big thing.

The greatest of all new cyber weapons, however, is not offensive, like breaking a far-off power grid. Rather, it is analytical, and it is called Big Data.

As we've been saying, the new age of intelligence differs radically from the old era. This difference is not superficial; it goes down the roots... all the way down to our assumptions of how we know what we know.

The foundation of all stable knowledge, from the 17th century through the 20th, was the scientific method: Start with the smallest, most clearly verified facts, then build on top of them, verifying each new piece along the way. Like nearly everything else, intelligence was built on this verify-and-build model.

In contrast to the verify-and-connect-the-pieces process of the scientific method, the new Big Data model is a kind of slow omniscience. If you remember the Deep Thought computer of *Hitchhiker's Guide To The Galaxy*, you'll have an image of the process: The petitioner comes to the machine and asks a question. The machine, through an unfathomable process, eventually spits out an answer.

Chris Anderson, in a seminal piece in *Wired Magazine*[17] summed this up by saying that “big is different.” In other words, when analyzing huge amounts of data, things are different. The scientific method has to be jettisoned and a new model used. Anderson went on, using Google as an example:

> Google's founding philosophy is that we don't know why this page is better than that one: If the statistics of incoming links say it is, that's good enough. No semantic or causal analysis is required. That's why Google can translate languages without actually "knowing" them (given equal corpus data, Google can translate Klingon into Farsi as easily as it can translate French into German). And why it can match ads to content without any knowledge or assumptions about the ads or the content.

In other words, Google does not translate an English word like “cat” into Spanish as “gato” because it consults a Spanish/English dictionary. Rather, Google's systems query a cloud full of data[18] – petabytes[19] of data – and conclude that “gato” is the word that is most likely correct.

This is *indirect* reasoning, and it is performed by huge masses of computers that work on sets of data that are constantly varying in size and content. (Data sets that are far too large to be analyzed piece by piece.) This indirect reasoning, however, works, as Peter Norvig, Google's director of research, has been quoted saying: “All models are wrong, and increasingly you can succeed without them.”

This is crucial: Models built carefully from verified facts are becoming passé, and we are thought not to need them anymore. We can succeed by going to every-changing oceans of data and querying that data cloud. Again, this is rather like asking an omniscient but slow being. That is Big Data.

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[17] In June of 2008, issue 16.07

[18] *Cloud* refers here to thousands of remote and interconnected computers, as in *cloud computing*.

[19] One petabyte is 10^{15} bytes of data, roughly equivalent to 300 million songs. The DNA sequences of every person in the United States could be stored on one half of a petabyte.

Big Data uses an analysis technique called *statistical inference*. It draws conclusions from sets of data that are subject to random variations.

These systems identify the mathematical model of a system, not by traditional analysis, but merely by watching what goes in and what comes out. If you can watch a process thousands or millions of times, you can also describe its results… not precisely, but predictably.

The new model is not one of understanding the gears, but of being able to predict what goes in and what comes out. Knowledge of the gearing is irrelevant to this process.

This type of analysis, from large datasets, is particularly good at revealing relationships and dependencies, as well as predicting outcomes and behaviors. Big Data allows analysts to ignore causation.

Ignoring causation, it needs to be appreciated, is a radical change, more or less reversing the scientific process that brought us to where we are now. And because this process works, understanding will soon enough become less than mandatory and then abandoned, especially by the younger analysts. The omniscient Big Data machine will be fed questions and the analysts will wait for it to spit out answers. “It's faster, easier, and more accurate,” the young analysts will say; and they will not be incorrect.

Big Data is like a human that can *only* think intuitively – it cannot reflect on its own thinking or question itself. It produces conclusions that will usually be right, but there is no indication of why any conclusion is right, how it was arrived at, or why that conclusion reflects reality. It is a black box that spits out good results, but gives us nothing on how the result was achieved. The black box, located between the data gathering and conclusion, it never asks “why” or “how” but only “what”, and it does not know the effect of any single element in its processes.

Big Data has these characteristics:

- It learns from feedback, creating information that it feeds back into itself.
- It is based on hidden heuristics. (A *heuristic* is something that generates a short-cut answer.)
- Big Data cannot be systematized.

- It is unreflective.
- It is hard to manipulate, mainly because it uses oceans of data; more than can be successfully polluted.
- If Big Data fails, it fails fatally. This is because it is unreflective, has no systematization and is based on hidden heuristics.

Big Data systems are an absolute necessity under the game theory model. The rational strategy is to have more of them than anyone else, and for no one else to know that fact.

Big Data, obviously, is only of value where people rely on interactive environments. It would have very little impact on a country in Africa where only 1 in 50 people have internet access. But it works exceptionally well in developed countries.

What Is This Thing, Really?

In the physical world, Big Data consists of large groupings of fairly average computers, mounted in racks in large data centers. The size of these groupings is typically in the thousands of computers. These computers are connected in ways that allow them to operate in *parallel*. That is, thousands of them can process the same datasets at the same time; the data being broken into a thousands of parts and handled by thousands of machines simultaneously.

More or less all the big computing companies have moved into Big Data, which they may also call AI.

Big Data has been in use for some time. Google, for instance, has used it for many years, starting by identifying specific colors, layouts, and designs that made people more efficient internet searchers. They did this by slightly tweaking the pages their customers see for a few million searches at a time and then examining the subtle ways in which people react.

More Is Double-Better

Far from choking on too much data, the intelligence of the 21st century wants more of it. And so, it cannot be scaled back. Stepping backward ten percent on surveillance would result in more than a ten percent loss in useful information,

and probably twice that amount. The benefit from surveillance is not linear, it is exponential.

Before it hits a threshold, surveillance isn't of terribly much value, except when closely targeted, as it was in traditional police work. Past a certain point, however, surveillance (mass surveillance now) has a wide enough base of information that it gains predictive and causative value. And the more surveillance is done, the more value it gains.

Having enough surveillance data allows you to look at history precisely and find patterns in it. And again, these are not indications of causation, only patterns of correlation. But that's enough for predictions to be made. For example, when food prices rise faster than a certain percentage per year, riots and overthrown governments become far more likely. By surveilling food prices, you can predict riots. Having more data means that more statistically relevant correlations can be found.

There is also a fundamental difference between the simple surveillance of traditional police work, for example, and mass electronic surveillance, and it is a difference, not in quantity, but in *quality*:

1. Traditional surveillance is about creating a record of past behavior and to capture communication that reveals planning.
2. Mass surveillance has two qualities: It creates a record to be looked at in hindsight, but it also sees all the individuals individuals it surveilles as a mass - as a single, abstract, object.

But even this term, to surveil, is outdated here. This type of life-long, ubiquitous surveillance is an act of *ownership*. It turns the mass of people into a swarm, a mob, a collection of non-unique things that do not exhibit individual will. The target persons are first conceived as a mass – without individual faces and sensations, and are seen moving as a swarm.

Once past that point of being seen as collectives rather than individuals, the surveilled masses can be treated as a single entity, leaving empathy unable to attach. Empathy, as has been known since time immemorial, connects between individuals, not swarms. This is why manipulators (or even non-manipulative communicators) almost always use

individuals as examples. People just do not connect emotionally with large groups.

This is one of the most dangerous foundations for power imaginable, but it is a type of power that a surveillance operation is most unlikely to give up. Consider these comments, in which Thomas Drake, formerly a top executive at the NSA, likens the control of surveillance to mainlining heroin:

> In the digital space, you're "data drug" habit goes exponential, because there's just so much. You can mainline this all day long. To me, there's a psychology that's not often written about: What happens when you have this much reach and power, and constraints of law and even policy simply fade into the woodwork... Which is made worse by the fact that you can't get enough, there's never enough, and there's more coming... You're high all the time. Because you're plugged in. It's now 24/7. There's no relief from the addiction.[20]

A Few Final Thoughts

There is obviously a great deal to be said about Big Data, but we will conclude here with the thoughts of others.

Here, again, from *The Future of Counter-Intelligence*, is Jennifer Sims:

> The significance of 'big data' and miniaturized, inexpensive collection platforms for counter-intelligence is obvious: adversaries can learn much more about each other by spending much less than they once did.

Here is Craig Mundie, Senior Adviser to the CEO of Microsoft, writing in *Foreign Affairs* March/April 2014:

> "Big data" has rendered obsolete the current approach to protecting privacy and civil liberties.

And finally, here is a thought from John von Neumann, one of the great geniuses of the 20th century and a major

[20]Interview posted at George Washington's blog (http://www.washingtonsblog.com/), June 6, 2014

contributor to computer science, as well as the Manhattan Project, quantum physics and more:

> What we are creating now is a monster whose influence is going to change history, provided there is any history left.

5

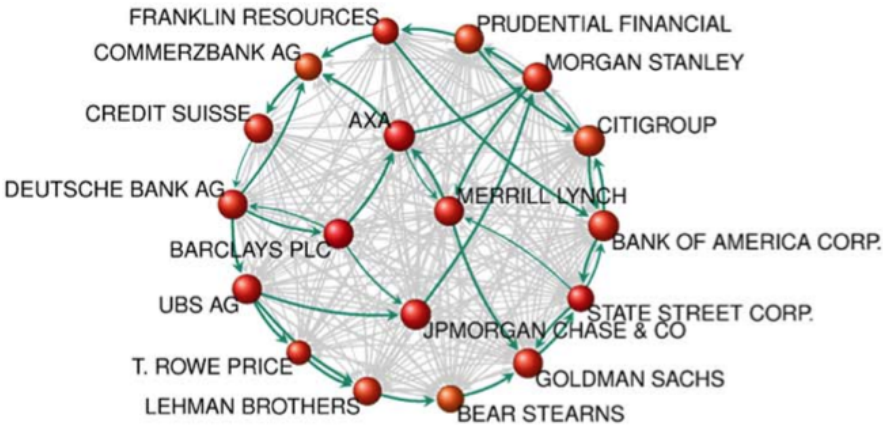
Hidden By Incredulity

Only puny secrets need protection. Big secrets are protected by public incredulity.
– Marshall McLuhan

We will be brief in this chapter, but direct.

The Core of The Networks

Please take a look at this image, from the paper we noted in chapter three, *The Network of Global Corporate Control*:



In the paper, this image is noted, “some major TNCs in the financial sector.” The document further reports this:

> We find that, despite its small size, the core holds collectively a large fraction of the total network control. In detail, nearly 4/10 of the control over the economic value of TNCs in the world is held, via a complicated web of ownership relations, by a group of 147 TNCs in the core, which has almost full control over itself. The top holders within the core can thus be thought of as an economic ‘‘super-entity’’ in the global network of corporations. A relevant additional fact at this point is that 3/4 of the core are financial intermediaries.

This brings us to a conclusion we cannot evade:

> Financial intermediaries – banks of various descriptions – are clearly the core of the world's networks of power.

Whether or not money itself retains its place of top importance in the world (and we indicated in chapter two that it will not), the powers behind money are positioned to remain in power.

The Crisis and The Options

Again without going through tedious details, we think it fair to say that the financial system of the early 21st century stands on fairly thin ice. World debt is massive; more than can realistically be repaid. On top of that ever-more debt seems to be the order of the day.

Still, at some point, the strategy of “forever more debt” stands to fail. And judging by the new push to ban cash, it would seem that the networks fear such a moment.

Aside from the lunacy of cash suddenly becoming a threat, after millennia of daily use, there are good reasons why this tack is being taken. The first is simply because it's the only way to impose negative interest rates on the general populace. If people were allowed to hold cash, they could escape such a policy. A second reason is that it would provide far more financial data, upon which the systems of the 21st century thrive. The use of cash provides very little data.

A combination of no cash and negative interest rates would allow banks and states to reduce debts efficiently and

quietly, without a systemic collapse. Bank accounts would shrink day by day, automatically. Your $1000 in January, for example, would shrink to $950 by December. The difference would go to the banks and to the government. In addition to paying off the debt of the banks, this would also finance government, limitlessly and automatically. And, of course, it would force people to spend everything they got, as soon as they got it.

The other option to the financial networks is a full collapse, followed by the institution of a new system.

The Point

The point we wish to make in this chapter is simply that the major banks – and the people and groups that stand behind them – have stood at the center of the 20th century's money power, and now stand at the center of the 21st century's networked power.

This much is known, and bears reporting.

6

Descartes' Demon

> *If you want a vision of the future, imagine Washington-backed Google Glasses strapped onto a vacant human face—forever.*
> – Julian Assange, *When Google Met Wikileaks*

René Descartes is the philosopher who is famous for writing *cogito ergo sum,* "I think, therefore I am." But to get to this famous conclusion, Descartes had to use a mental experiment featuring an "evil demon" who could give him a complete, perfect and false illusion of the world, deceiving all of his senses and convincing him that even logic and mathematics were false.

As it happens, Descartes' imaginary demon is a nearly ideal model of the new type of intelligence that is now rising.

But while an imaginary demon helped Descartes prove with certainty that he existed, the modern version of his demon is neither helpful or imaginary. Technological versions of Descartes' demon have already been built. Not only that, but many such demons are under construction right now. And they are not only powerful, but they are intelligent and substantially independent of human control.

These demons are Big Data systems: huge groupings of computers, tied to mass surveillance. They see, they learn, and they do their masters' bidding.

What gives Google and Facebook their strength is the same thing that empowered Descartes' demon: the power to

deceive, and to deceive intelligently. Google's method of deception is custom environments: As we noted earlier, what you see on a Google search page (or on a YouTube page, or a Facebook page) is not what your neighbor would see, given the same search criteria. What each of you sees is customized, based upon what Google knows about you and, perhaps, what their clients have to sell on that particular day. You see a customized environment... customized for you *personally*. And the more experience Google has with you, the more it learns what will or will not effect you.

This has, as any observer of Google's ads knows, been happening and intensifying for some time. And so we are moving into a situation where many people will not be living in the real world, but in a world built specifically for them... a world carefully designed to make use of them. This is already significantly true for people who are addicted to iGadgets.

If we see what the demon wants us to see, and if the demon learns which stimuli we do and don't respond to, and which supplemental stimuli contribute to our decisions (the opinions of friends, our mood that day, which TV shows we watched that morning, and so on), the demon can make us do what the demon-master wants us to do.

After all, if I know what motivates you, and if I have the ability to change your environment based upon that knowledge, I can induce you to act in ways that I prefer... and *this is precisely what these systems are designed to do*. The very scary thing is that computers do this much more effectively and much more cheaply than humans ever could.

Currently, no one is further along this line of development than the US intelligence complex and their “Defense Industrial Base” partners. But while the first demons bear the “Made in USA” stamp, the intelligence agencies and corporations of of most other countries are already building their own, as are even some religious and private groups. All of these are becoming lesser demon-masters, each with its own demon in training.

The Star Trek Dystopia

Perhaps you can remember old episodes of Star Trek, where a civilization became controlled by computers, and no one could remember how things really worked. (There were

several of them.) This process, of abandoning the scientific method and replacing it with Big Data's slow omniscience, is precisely how such a thing would happen.

Rational thinking allows us to systematize conclusions. If we find verifiable facts – if we clearly identify causality or find a method – we end up with facts and principles that can be used elsewhere. This is a slow process, but can be used in many areas with extreme reliability. It's the tool that brought us from riding horses to riding space ships.

With emotional thinking, we don't see the process, but we still use our emotional judgments and apply them as if they were a systematic result.

The rational method is slow and limited, but it gives us assurance; its results can be reused with confidence.

Big Data, using the intuitive process, is a shortcut that replaces theory building. Science, after some years under the reign of Big Data, will become statistics, and almost nothing else. People will lose track, whether quickly or slowly, completely or partially, of *why*.

And that is how a civilization would fall into the Star Trek dystopia. It really isn't as far-fetched as we'd like it to be.

Real Reality & Altered Reality

As the various incarnations of Descartes' demon spread and compete, the stronger will be able to lord it over the weaker. In other words, one will have an information advantage and the other will be at an information disadvantage.

In practical terms, that means that a stronger demon can make the operators of a weaker demon see what he wants them to see. So, in a “Descartes' Demon future,” if you are at an informational disadvantage, your mind won't function according to reality for the most part, but according to an altered reality that is custom-built for you. In other words, you will be subject to unseen, persistent, scientific manipulation, based upon deep and ever-improving psychological profiles.

The purpose of this altered reality will be to guide you to the will of the more powerful demon-master. Those who leave themselves subject to Descartes' demons become unwitting slaves to the people who control their view of reality.

What we are headed toward is a combination of information gathering, automated environments, machine learning and genetic algorithms. Google has understood this for some time, as have others. Much of the intelligence complex does as well. They just don't talk about it, because talking about it would lessen their information advantage.

As these demons compete with one another, winning strategies will be instantly replicated, maximized and multiplied. Wins will become larger and losses greater.

If you are a winner, your system can create environments that adapt to the user and, in fact, become perfect for the user. You create the illusion of a paradise for the viewer, but in a way that is first profitable to you. This can all be done automatically, with almost no human involvement required. *That is what Big Data does.*

Surveillor Culture

The builders and operators of such systems cannot help but develop an attitude of superiority. That such a situation is inherently dangerous has long been understood, and was most famously expressed by Lord Acton:

> And remember, where you have a concentration of power in a few hands, all too frequently men with the mentality of gangsters get control. History has proven that. All power tends to corrupt; absolute power corrupts absolutely.

Furthermore, if Big Data does make scientific discoveries, it will leave them fully in the hands of organizations that are large and fascistic. That is not a good model for human thriving. Their information advantage will give these groups a material advantage, leading them to be become supremely confident in their systems, their positions of superiority, and the morality of whatever they do.

As noted earlier, the surveillor mindset is already with us, depersonalizing its targets and believing that their proper position is to rule over “little people.”

If this was happening while the demons were still being built, what shall we expect once they are complete, and these techniques are carried out, not slowly and expensively by hand, but with the press of a button?

The Short Step To Total War

Governments in the modern era have enjoyed nearly 100% compliance. Nearly every person in the West does whatever their government demands, and whenever they ask it. This has continued long enough that government has become addicted to it. And that means that they will panic if they begin to lose it.

A meaningful level of non-compliance (and/or loss of legitimacy) occurred in the West as recently as the 1960s, when a variety of new influences (the birth control pill, among several others) created a powerful counter-culture movement; a movement that was initially opposed to power. In response, governments, even down to the city level, massively increased their use of surveillance.

Any serious challenge to full compliance would likely elicit a “total war” level of response from government, and Big Data will almost certainly be their primary tool… provided its operators agreed with the state's goals.

In the 1960s, surveillance was followed by expensive and difficult efforts to manipulate non-compliant movements. In the era of Big Data, what follows non-compliance need be only the push of a button, launching attacks on personal and psychological levels.

Big Data's world would be tyranny, writ very, very large. Calling Big Data a demon may be too soft a term.

There are answers to the threat of Big Data, but they require average people to act heroically; to break the inertia that we mentioned earlier. Contrary to popular opinion, this has happened in the past and can certainly happen again. However, these actions, when they occur, will be demonized in public forums and punished excessively. It will be the one existential threat to the new system.

It is to such a set of possibilities that we turn now.

7

Having Eyes That See Not

Man is not always blind.
– Abraham Joshua Heschel

The words above are true, even if it doesn't seem like it. Humanity may be blind, willingly blind, for horrible lengths of time, but mankind is not *always* blind.

Our present culture – the loud, flashing, vapid cloud of noise and fear that surrounds us – not only promotes blindness toward anything outside itself, but requires blindness for its very continuance. And it has been terribly effective at maintaining itself.

Still, man is not *always* blind.

The West's current systems of rulership require the populace to *not see*... to be too frightened to admit that anything humane could exist outside the status quo. The system assumes that it will always enjoy massive societal inertia and full, automatic compliance... and it is not prepared to deal with changes to this basic condition.

Anyone who has spent time on the subject understands that if governance were sold to the public by reason, rather than by emotion (fear, mainly), nothing beyond a minimal government could exist. Analysis of facts does not lead to endorsements of political plans.

Devotion to the status quo, then, may properly be deemed irrational. It is, if we are to be honest, a sort of cultured hypnosis.

And beyond all this, we know that humanity has deep problems related to fear, authority and dominance.

We learn very early that authority is a thing to be *accepted*, not to be examined. But if we look at it directly, we see that authority is an outsourcing of our thinking. Once authority speaks, our mental processes stop, and we do as it directs. In other words, authority, to whatever degree we accept it, diminishes us.

The appeal of authority is that it's easier to obey than to think, especially if you're afraid to make choices and bear responsibility for them. If you hand your mind over to authority, nothing is ever your fault.

All of this has a very clear implication:

> Authority makes us less conscious, less alive. It makes us morally and intellectually blind.

But regardless of all the above, we've all learned that fear is how things get done. Authority is the way reality is structured. Dominance is irrevocable human nature.

We all know these things; we learned them in childhood. They are, were, and ever shall be. More than that, they stand to become more pronounced under the persistent manipulation of Big Data.

And yet... man is not always blind.

Outside Does Exist

Rome is gone; a possibility that seemed utterly inconceivable to the people of late antiquity. Indeed, millions of them required a century or more for the truth of it to sink in. But the great Rome did fall apart, and is gone.

Likewise the god-king pharaohs and a hundred other potentates. In their day, they all seemed as lasting as the hills; now they are faintly remembered as primitives, if at all. So it will also be with the high and mighty authorities of our time. Their crescendos of self-praise, like the godhood of Caesar, will fade into the night to be lost forever.

Every system, no matter how powerful it seems, has vulnerabilities, and foments its own opposition. And so, regardless of how far-reaching the new regime of networked power may be, it carries one great weakness: *those who drop out of the system are nearly immune to it*.

Once the peak conformity of our time breaks – and eventually it will – the power of the networks will break with them.

Networked power rests on the reflexive conformity of the populace. If people stop seeking loans from banks, they can forget about the credit rating agencies we used in our earlier example. If they use cryptocurrencies like Bitcoin, they can forget the demands implicit in the use of banks, dollars and other financial structures[21]. If they homeschool their children, the status quo will be denied its greatest conduit to new minds. And if they use alternate means of communication, the system, including Big Data, runs dry of data and cannot manipulate them[22].

Salvation, then, comes by living outside the system. And for some time now, the best new theorists, whether by analysis or instinct, have been pushing in this direction.

More than that, quite a few people are using cryptography and anonymity technologies to throw sand in Sauron's eye. It's an available way to open some space and live an authentic life.

There is further a fundamental fact that is forgotten: The entire Western world rests – whether people realize it or not – on a foundation that glorifies breaks from the status quo and the forging of parallel paths. That, at the beginning, is precisely what Christianity was, and however much it has sold itself to the state, its roots go back to radicals breaking away from the great power of their day.

Judaism was the start of this, of course, with its insistence that God speaks to the humble rather than the mighty, and the insistence that justice stands above the ruler.

These are Judeo-Christian fundamentals, and they remain, no matter how badly people are distracted with doctrines of the day and endless theological arguments. Furthermore, the world contains some 2.4 billion people who claim to care about these ideas. If and when they begin to turn from their

[21] The same would apply if they used silver and gold in daily trade.

[22] The mass surveillance model depends upon people venturing into the internet unprotected. If internet users began using encryption and anonymizing themselves regularly, both the free stuff business model and the Big Data mass surveillance model would crash.

usual doctrinal quagmires and return to their “not aligned with power” roots, the page turns.

So, unity, order, networks of control and mass manipulation do have a Kryptonite: a moral and active counter-culture. The way to defeat the deep slavery of the 21st century is simply to separate from it. And the men and women of the West have a background in that.

Tomorrow Is What We Make It

Those who stay plugged into the Matrix of networked power and Big Data will be living the life that serves the Matrix-keepers... using them for its own satisfactions. They'll be held in a devolutionary environment, surrounded 24/7 by devolutionary incentives... thinking all the while that they're free and enlightened.

Still, there is something in mankind that knows it's living an inauthentic life, and rebels against it.

Man may be an animal, but he is not *only* an animal, and he cannot be relied upon to love blindness forever.

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