Autonomics A primer

Benjamin Munro and Julia McLachlan 2016

"If we try to run the economy for the benefit of a single group or class, we shall injure or destroy all groups, including the members of the very class for whose benefit we have been trying to run it. We must run the economy for everybody." \(^1\)

This paper serves as a primer to *Autonomics*. It focuses on general concepts, some monetary theory, and introductory ideas related to governance and reputation.

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¹Henry Hazlitt 'Economics in one lesson'

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Autonomics is a world-scale, open source software project, designed to be an Internet based economy that comprises a new kind of money. We claim that this is the world's first integrated money, governance, and reputation system, forming an 'intelligent' economy. This economic platform offers a way to operate money completely within the free market itself, rather than requiring untrusted third parties external to the economic system. We explain this in more detail in the *Autonomics* whitepaper on *www.autonomics.io*.

1 Introduction

For a very long time people lived in small groups, isolated and mostly independent. However, with the invention of large scale trading and communication networks these groups expanded and evolved. The size and complexity of our groups and marketplaces increased. We produced and consumed like we've never seen before and in many ways became more wealthy than ever. This wealth is the result of the large scale trading of our specialised labour. That is, more of us became able to participate in industry and trade with each other to realise a profit.

With increasing tension between the benefits of expanding the global marketplace, and the ill-fitted nature of incumbent systems, it has become obvious that our current organisation systems are under duress. As the world looks to existing establishments for an answer to operating an increasingly globalised economy it is critically important to re-think money at a fundamental level.

Money, which is humanity's most essential tool, has been evolving for thousands of years. However, to understand the evolution of the money tool, we must understand that money is a system, not just a colourful note in our pocket. The design of the economic system has such a profound influence on our lives that we claim that the terms 'economy', 'community', 'society', 'humanity', and even 'culture' are essentially describing the same thing, that is, the way we group, and the resulting function and character of our groups. If we want to create better effects in our lives we must consider the design of the economic system.

Until we step back, and look clearly at the *cause* of the world's problems, we'll be lost in effects. What if most of the world's problems are actually effects of our fundamental systems? We claim that indeed they are.

2 What is a system?

When discussing money, politics and the problems of the world, eventually we hear people agree 'It's the system', but how often do we have a conversation about what a system is?

"A system is a set of interacting or interdependent component parts forming a complex and intricate whole." $^{2}\,$

Although it seems as if the money we individually use is an independent thing, it is part of a very large and complex global money system. To think about the money in your

 $^{^2}$ Wikipedia

pocket as an independent thing is to make the same mistake as thinking about your car as an independent thing. Both derive their function from the system they are a part of. Each part requires the whole system to function, and vice versa.

If you had a brand new car next to you in the jungle, it would be useless (as a car). A system of roads, maintenance, repairs, insurance, panel and paint, new and used parts, sales and registration is needed so that your one car can function. If there were no roads, no traffic systems, no maps, no oil, no gas stations, no policing, no parking lots, no parts, no mechanics, no tire repair shops - then your car would be useless.

Billions of people using their own car turn the gears of a large, complex car system, which individuals may have very little or no knowledge of, and yet they are a part of it by turning one tiny gear. And although each individual using their car has a relatively negligible effect on the world, the total system, run by all people, has a very large impact.

Just like the car in the jungle, the money tool in your pocket would be worthless without the system that enables its function. The design of the money tool, and the system that it operates within are functionally joined. You can't have one without the other.

"For the market system is not just a means of exchanging goods; it is a mechanism for sustaining and maintaining an entire society." ³

Each person's money-related behaviour affects the whole system, turning tiny gears of a massive machine. Although one person's use may have a relatively negligible effect on the whole system, our total aggregate use, that of billions of individuals, has a very real, very noticeable effect on the entire economic system and therefore on society, community and culture.

We claim that our lives are directly influenced by the systems we use to group and that our most fundamental systems are money, governance, and reputation. The design of these systems will determine our sustainable success and well-being. The earth and environment are also direct beneficiaries of these systems.

2.1 So what's the problem?

As we look around for the cause of the world's problems it's easy to find someone or something to blame. The rich, the poor, the left, the right, capitalism, communism, tax dodgers, corporations, the government, the lazy, the greedy and on and on it goes.

³Robert L. Heilbroner *The worldly philosophers*

But who is to blame? 'Bad' people are not causing our problems, it just seems that way. When we look at a few individuals in isolated cases it's easy to point to a 'bad' person who seems to be making stupid decisions and benefiting themselves at the expense of others. However, it's the system in which we live that influences our behaviour, and therefore the society we create. Would you have made the same decision as that banker or politician or CEO? We propose that it's the role rather than the person that necessitates the behaviour. How often have we heard 'I was just doing my job?' We are all just doing our jobs. Consider that it's our roles and the economic context in which they exist, that are flawed, not us personally.

Those who use a system subserve the ends inherent in the system.

2.1.1 It's the system

How much of your life is related to money? Where you live, the kind of house you live in, the neighbourhood, the eduction you and your children have, what you wear, what car you drive, how far you commute each day, when and where you have vacations, where you work, and who you work for, whether or not you can afford organic food, or better dentistry, the nature of your professional relationships, who and when you marry and why, or not, how many children you have, or don't have, how much you worry about money, whether you're stressed or not about it, about work, about the cost of everything, whether or not you could change your career, do something else, and on and on it goes. Our lives are necessarily economic.

Just as the design of the car system defines and controls how each of us individually use our own car, the overall design of the money system defines and controls how we individually use our own money. Our fundamental systems so affect our lives and behaviour, that these systems themselves are the dominant force in our lives. Our choices are incentivised or constrained economically, and contextualised by the marketplace itself.

2.2 'Making a difference' and 'changing the world'

The phrases 'making a difference' and 'changing the world' are used so often and so loosely that they've become largely meaningless. What 'difference' and what 'change'?

We can't 'make a difference' or 'change the world' without understanding exactly what it is that we're changing.

2.2.1 Systems are causal

Imagine a group of people discussing how to travel across a country. And let's imagine that the tool (and system) available is a car. The capacity, design and constraints of the

available car tool are what influence the conversation. 'How long will it take? How many people can we take? What risks or terrain might we encounter, and have to plan for in advance?' Now, if someone shows up with an airplane, that is, a new tool, then the entire conversation is shifted. The issues related to the ground based car become obsolete, and continuing to discuss them is inefficient, outdated and irrelevant. By changing the tool (and system), not only are old problems solved, but the entire conversation changes, and new possibilities are made available.

When a fundamental system is changed, it automatically affects all aspects that derive from the system. Changing the effects of a system won't change what is causing the effects.

2.2.2 Integrating functionally related systems

A car's transmission, engine and steering systems, are all designed to be independently functioning systems, but to successfully combine them to form the superior car system, they must be fundamentally integrated, because they are functionally related. For each of the three systems to fulfil their optimal purpose they must work together in a very particular way, which we call 'car'.

Functionally related systems can be fundamentally integrated to optimise performance. Money, governance and reputation are three such systems that are functionally related.

Autonomics offers a model for an entirely new fundamental system, creating entirely new possibilities for our global society.

2.3 Money matters

2.3.1 Money as the most important system

Money, governance and reputation systems are the upper order systems by which humans organise. What we call society, community and culture ultimately derive from the design of these systems. Of these, money is the most important, and can be integrated with governance and reputation.

Let's look more closely at what money is.

3 Money

Money splits barter, and allows industry to expand so that we can all benefit from the specialisation of labour and trading to profit. It allows us to become more wealthy by participating in a large and complex marketplace. The way money is designed determines

how the economy functions and vice versa.

What is the 'right' way to design money?

We suggest that there are four fundamental aspects to money design. They are the way money is created, allocated, backed-for-value and redeemed. This can be easily understood when we look at the purpose of an economy, or market mechanism.

3.1 What's money for?

Here's the logic defining how and why mankind has developed the money tool.

- 1. Everyone plays their own small part in the massive global production system. That is, each person specialises their labour
- 2. To realise a profit from the specialisation of labour, each individual needs to trade with others, otherwise each of us is limited to consuming only what we individually can produce
- 3. To escape the limitation of bartering, we need to split barter, which requires an I.O.U note which is the money tool
- 4. To escape the limitation of small scale, only locally trusted, very many I.O.Us, we need a common money
- 5. To expand the marketplace with a common money tool, we need a single trustable ledger to operate account balances and transactions

Specialising our labour and the profit motive naturally lead to the development of a money tool, and necessarily leads to a *common* money tool and a *common* ledger. The banking system and fiat currency have achieved this in a particular way. However, this is just a step in money's evolution.

3.2 The fundamental design of money

The love of money is not the root of all evil ... money is the root, period. As mankind's most fundamental system, money directly and profoundly influences our behaviour and the way we relate in groups. If it is designed incorrectly those who use it will become less wealthy. If it is designed correctly those who use it will become more wealthy.

3.2.1 Money is a tool

The way the money tool is created, allocated, backed-for-value and redeemed, defines the way the entire money system, the economy, functions. These aspects are what give money its properties and long-term value.

Let's use the car metaphor again. In a car, fuel is created (put into a car's fuel tank), allocated (fed through a fuel pump to the injectors and into the cylinders), and exchanged (ignited and converted to expansive gas) and then forced out the exhaust system. The mechanistic pathway of fuel through the car defines how it will operate, and is critical to the car functioning precisely that way. If the fuel flows another way, the car will function another way, probably dangerously, or not at all. Just like a car's fuel system, the way money flows through the economic system must be designed precisely.

Fiat currency, which is the money tool we currently use, is created as private bank debt, allocated largely to financial organisations under the illusion that this capital will 'trickle down' to the productive economy. It is arbitrarily backed for value (by oil for example), and by 'fiat decree' and is only redeemed by paying back the original debt, if at all. These are economically arbitrary ways to operate the money tool, and will necessarily have deleterious system-wide effects.

To understand proper money's journey and therefore the way it *must* be created, allocated, backed and redeemed, we need to understand the proper function of an economy. So let's look at two fundamental economic ideas, the specialisation of labour, and splitting barter.

3.2.2 The specialisation of labour

When enough people work together to produce we can make just about anything. Look around, we *built* this modern society. Without trading our own specialised labour, we'd be limited to only consuming what we individually can make. And if you look around you right now, how many things could *you alone* actually make? The answer is none of it. That's why we need to trade with each other.

An economy is a mechanistic system that enables individuals to contribute their own special labour to overall production. In other words, it's a system in which we all group together to work and trade, to produce and consume.

3.2.3 Splitting barter

Money allows a buyer and a seller to benefit from a trade, that would otherwise be impossible if it required exchanging two products, or simple bartering. So rather than one person

having exactly what the other person wants at exactly the right time, and vice versa, which is prohibitive, the buyer just needs money, to agree on a price, and to exchange money for the seller's product.

Looking at Figure 1 on page 11, the buyer creates and issues the money tool, while the seller backs its value by agreeing to exchange a product (or service) for the money 'note'. This allows a transaction to take place, without the need for the buyer to have exactly what the seller wants. Thus the money tool allows the exchange to be 'split' so that the buyer can get what she wants, while the seller can receive a 'credit' to exchange for something else, with someone else, at a later time.

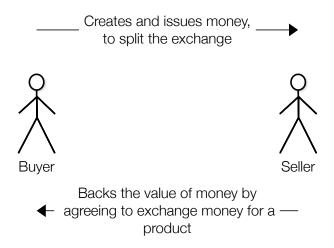


Figure 1: Money is the tool used to split barter

The 'money' that the buyer uses is her promise to pay (later) for the real product she receives (now) from the seller. The money tool, is, by definition, a credit note, that is created by the buyer, allocated to and backed for value by the seller.

Looking at Figure 2 on page 12, the 'I.O.U' is issued in lieu of trading a product. In this case our buyer wants shoes, but the shoe seller isn't interested in the apples that our buyer has to trade. However, our seller wants to sell his shoes, and money solves the problem. It is a promise, made by the buyer, to give any bearer presenting the I.O.U the apples that she hasn't provided *yet*.

The seller is then able to take the 'credit note' and exchange it for another product in the marketplace at a later time. This credit note can be used by many buyers and sellers

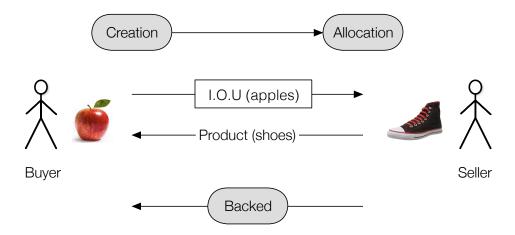


Figure 2: The buyer issues new money (an I.O.U) to the seller

throughout the economy. The original source of the money 'note', our apple producer, issued the note as an I.O.U, in this case 'I owe you apples'. If she doesn't eventually redeem the I.O.U for apples as originally promised, the note will be recognised as worthless. And so it should be. The new money, a credit note, must eventually be redeemed by the issuer. Unless the issuer of the credit note eventually redeems the note, it cannot be trusted or maintain its value.

Money's function and sustainable value depends on the way it's created, allocated, backed and redeemed. Although the proper function of money is essentially simple, humanity has not solved how to make it work this way.

3.3 The fundamental design of an economy

Have you ever asked yourself 'What's an economy for?' or 'Why do we have one?'

Looking at Figure 3 on page 13, we can easily see that the proper purpose of an economic system is to do two primary things:

- 1. It uses a money tool to economically incentivise labour to make products, and thereby provides labour with purchasing power
- 2. Then labour, acting as consumer, is able to use new purchasing power to buy products to fulfil their needs in the market place

That's effectively what an economy is for, and the tool that the economic system uses to do this, is money. It becomes clear then, that this money tool flows from the economic system for labour as wages, and returns back to the economic system as it's spent by consumers in exchange for products. So, the money tool defines a process that starts with a labour exchange, and completes with a product exchange.

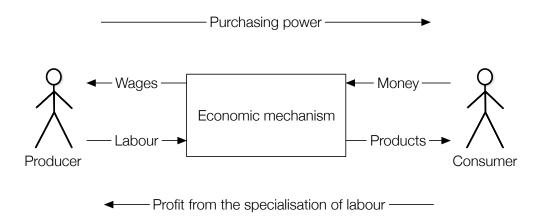


Figure 3: What's an economy for?

An economy is a large-scale and sophisticated mechanistic device to utilise the specialisation of labour and to realise the profit of that labour. It enables many people to play an individual role in total production. It is the way that all of mankind is able to collaborate together to fulfil our collective needs.

3.3.1 Externalising costs - the difference between profit and plunder

3.3.2 The forgotten man

In his article 'The Forgotten Man' Yale University professor William Graham Sumner provides an algebraic definition of the forgotten man 'C', who is coerced into helping the man at the economic bottom 'X', by 'A' and 'B' who demand charity for 'X'.

"As soon as A observes something which seems to him wrong, from which X is suffering, A talks it over with B, and A and B then propose to get a law passed to remedy the evil and help X. Their law always proposes to determine what C shall do for X, or, in better case, what A, B, and C shall do for X. What I want to do is to look up C. I want to show you what manner of man he is. I call him the Forgotten Man He is the man who never

is thought of ... I call him the forgotten man. He works, he votes, generally he prays, but he always pays."

The forgotten man describes the effect of other people being able to coerce someone else. Our argument is that an economic system that externalises costs, is 'forgetting' all of us, and our environment, who are all left to pay. The system is the cause of our economic relationships with each other. Any system that externalises costs automatically and mechanistically will cause participants within the system to be 'forgotten'.

How can we possibly govern ourselves effectively when there are innumerable forces rendering us 'forgotten'? What if we built a new system that had all of us consulted?

3.3.3 The consulted man

The key to understanding 'The forgotten man' is this. By way of some system, it was possible for 'A' and 'B' to coerce 'C' to be 'forgotten'. In economics this simply means that 'C' was forced, or coerced into paying for something 'C' had little or no knowledge of and yet a decision was made without agreement and 'C' was made to pay something. 'C' could be a person, a group or a natural resource like a river. This is the externalisation of costs. When we have the opposite of this system, one that does not externalise costs, we have the opposite effect which is that every person is consulted.

The consulted man:

A and B can agree on anything they like, and if they want to help X then they alone must help X with X's acceptance of the offer. If they want more help they must find more agreement, perhaps even C's agreement. But every person is consulted.

Production, naturally, will incur costs. If, however, the total costs are greater than the total value created, the result is a loss, not a profit. When costs are externalised, by having someone or something else bear costs, then the so called profit, from the perspective of a small special interest group in the short term, may in fact be a loss, for the whole group in the long term. When production costs are born by other parties without their consent or knowledge, the parties are coerced, and the result is plunder and harm, not profit.

A sustainable economy must ensure that when individuals acting independently and rationally according to individual self-interest, they will not, in aggregate, behave contrary to the best interests of the whole group. So we need a system, that *automatically* prevents harm, as no single individual can see and understand all the effects of their actions.

This is quite different to what happens today. When you buy a cheap toaster, you have

no idea how that affects the environment in an industrial part of China, where the toaster was made. Our current financial system systemically coerces all participants to externalise costs as much as possible, to decrease costs in order to 'make a profit'. This is inevitably disastrous, as each of us is chasing a money tool, that is destructive by design.

The environment Our collective behaviour is the cause of environmental and social problems. Without people, the Earth would be healthy, safe and in a naturally pristine condition. Our oceans and rivers would be in a natural state, and other species would be safe. It's our behaviour, in aggregate, that is affecting the environment. It's the design of the money system that defines and influences how we relate to each other and behave as a group. A flawed money system will absolutely, and inevitably pervert both individual and group behaviour, and therefore how we as a species relate to the environment. We need a global system that values and accounts for natural resource, including oceans and rainforests, so that our collective economic behaviour takes our environment into account.

Fundamentally the role of an intelligent economy is to enable participants to create wealth (profit) without doing harm (plunder). And it must achieve this *automatically*, as we cannot expect participants to know or be able to understand all aspects of a global economy when making individual choices. Increasing the overall wealth of the group, without harm, must be achieved *mechanistically*.

What do low prices cost us? Being able to buy a bucket for \$2 is amazing and it seems that this makes us a little bit wealthier, because it 'saves us money'. But this is just another example of what *Hazlitt* was so emphatic about.

"If we try to run the economy for the benefit of a single group or class, we shall injure or destroy all groups, including the members of the very class for whose benefit we have been trying to run it. We must run the economy for everybody." ⁴

The problem with today's model is that it automatically, and systemically functions to externalise costs, so that the lower prices we all want, are lower because someone or something else has paid the rest of it. It's impossible to know whether cutting costs for your special interest group is causing profit or plunder in the wider group.

Today's marketplace is fragmented with each of us ultimately working in a kind of economic isolation, without even really knowing it. A common currency will provide social commonality, but the *quality* of money will determine the *quality* of that commonality.

⁴Henry Hazlitt 'Economics in one lesson'

3.4 The blueprint for a new money tool

3.4.1 How should money be created and allocated?

Money should be created for, and allocated to, labour for production.

This backs the value of money with labour, and provides purchasing power for consumers. That is, free market labour competes to earn wages, thereby agreeing on the value of the money used. As money itself has no inherent value, this free market labour exchange backs the value of money.

3.4.2 How should money be backed and redeemed?

Money should be backed and redeemed by selling the products of labour.

Redemption of money is key to its sustainable value. When money is created and allocated to labour, the economy has received real work value, production capacity, and yet it exchanged this for inherently valueless money, say pieces of paper. The money paid as wages is effectively a credit note, or IOU, or promise to pay. That is, a promise that when labour takes the credit note to the marketplace, he or she can redeem the promise for actual products. When labour, acting in the capacity of consumer, exchanges those wages for products, the money is further backed by products, and redeemed.

4 Governance

4.1 What is governance?

"Governance refers to 'all processes of governing, whether undertaken by a government, market or network, whether over a family, tribe, formal or informal organisation or territory and whether through laws, norms, power or language.' It relates to 'the processes of interaction and decision-making among the actors involved in a collective problem ..." Whatever form the entity takes, its governance is the way the rules, norms and actions are produced, sustained, regulated and held accountable." ⁵

Whether it's to build a house, make a movie, go to school or run a global organisation, humans group for purpose. 'Governance' is about what we do, and about making decisions together, as individuals in groups. Figuring out who's going to wash the dishes is one thing, but organising billions of people on an entire planet, is another matter all together. Governance is about group decision making and resource management. So what would an intelligently designed system look like?

⁵Wikipedia 'Governance'

4.2 How do we make governance economically relevant?

With billions of decisions being made everyday, how are we going to have a practical system that is capable of organising all of us? How could it possibly be done?

In a complex global marketplace, it's impossible to have everyone voting for everything all the time. There'd be no time for anything else. It's one of the problems with our current system, it just can't handle the necessary complexity. Today who really has much say in the important details of how our society is operated? By what mechanism do you have a say in the roads that get built, how often the buses run, what stores get built downtown, how the town water supply is treated? How much say do you really get in anything? A single vote for this or that political leader and that's it? By what mechanism are individual preferences represented in the group? Our current political mechanism is terribly inefficient at representing its stakeholders in a detailed and meaningful way.

To account for the vast complexity, and detail of a global system, we must integrate our economic activity with governance, so that the way we each choose to earn money, and spend money, governs the whole group. This ensures that the governance process is integrated into the backbone of an intelligent economy. In a way, each of our choices of how to earn and spend money everyday becomes a very detailed vote in a large and complex system.

The Autonomic system achieves this in a number of ways. It ensures that consensus is required on common projects before it issues new money. So that when a group reaches agreement, in any context, like water quality, soil health or a public transport system, the Autonomic system issues new money to capitalise the group purpose. This means that each of us will *self-govern* by seeking consensus agreement for common purposes when labouring for purchasing power.

4.3 The importance of high quality incentives

If you want a better life, a better house, better schools, organic food, better dentistry, new shoes, you need money to participate in the marketplace. The marketplace is where the things you want are. They've been produced by other people, who want to trade their products for money. So it's reasonable to assume, that the most important incentive will always be money, and should be. That's one of the inherent functions of the money tool, to incentivise labour to work, and incentivise consumers to spend. The design of money has an economy wide effect whenever it's used. The quality of money will determine the quality of our economy. In describing the importance and effect of incentives, Charlie Munger said "Show me the incentive and I'll show you the outcome."

From an economic perspective, an improvement would be: "Show me the quality of money and I'll show you the outcome."

The Autonomics model incorporates a new kind of money, that fundamentally incentivises actual wealth by valuing agreement and reputation. We want a money tool, that when used by individuals, has a systemic effect of incenting for consensus agreement, collaborating on common projects and acting reliably and reputably. If you collaborate and transact reliably you get more wealthy, if you don't, you get less wealthy. By incenting for collaborative, honourable behaviour we offer a context in which people want to collaborate and be reputable. This is the model that encourages us to self govern as individuals and groups. We all become financially motivated to group successfully, and generate wealth.

When we change the quality and value of money, the incentive, we automatically change the quality and value of the outcome, our society.

5 Reputation

5.1 What is reputation?

"Reputation of a social entity (a person, a social group, an organisation) is an opinion about that entity, typically a result of social evaluation on a set of criteria. It is important in business, education, online communities, and many other fields. Reputation is known to be a ubiquitous, spontaneous, and highly efficient mechanism of social control in natural societies. It is a subject of study in social, management and technological sciences. Its influence ranges from competitive settings, like markets, to cooperative ones, like firms, organisations, institutions and communities. Furthermore, reputation acts on different levels of agency, individual and supra-individual. At the supra-individual level, it concerns groups, communities, collectives and abstract social entities (such as firms, corporations, organisations, countries, cultures and even civilisations). It affects phenomena of different scales, from everyday life to relationships between nations. Reputation is a fundamental instrument of social order, based upon distributed, spontaneous social control." ⁶

You wouldn't trust your car mechanic to perform knee surgery on you, but you would trust them to fix the brakes on your car. That's because you have reliable data about their ability to fix cars but no data about their ability to perform surgery on knees. Trust is not just a general feeling. It is *specifically* how reliable someone is in a *specific context*.

So, trust is a measure of reliability over time in a specific context, and reputation is the aggregate of specific trust data.

⁶Wikipedia 'Reputation'

5.2 How do we make reputation economically relevant?

When you work or trade with another person, you naturally ask yourself 'Can I trust this person?'

By implementing a reputation mechanism that defines trust as a measure of reliability over time in a specific context, and making this information available to market participants, everyone has economy wide trust data about the individuals and groups that we each trade with. This offers a natural mechanism by which we can value reputation, and the natural result of this is that participants are incentivised to be reputable because it enables advantageous participation in the marketplace. You get paid more for your job, and get better jobs.

In an intelligent economy, reputation is as important as money, because reputation drives one's ability to earn money. Money then, becomes the tool we use to group and collaborate, and 'wealth' becomes more to do with our reputation, the quality of our work, and the well-being of the group.

In lieu of having a mechanism by which we can accurately trust each other, we have been using a money tool, fiat currency, which is economically arbitrarily 'trustable' by decree, that is, by 'fiat'. However, this doesn't provide a proper economy-wide reputation system, or a sustainably trustable money tool.

6 Groups and purpose

Today, we use companies as the structure within which we centralise and coordinate production. Companies around the world compete in the marketplace to make a profit. Companies are the mechanism by which individual specialisation of labour, is aggregated, to fulfil the productive purpose of a group.

Rather than using this corporate structure, Autonomics maintains a structure of very many highly contextualised groups that co-operate as one global organisation. The global Autonomic economy operates with very many groups, and sub-groups, lead by the most reputable people, those who transact most reliably in any given context, and benefiting all stakeholders.

6.1 Collaboration rather than competition

Knowing that we naturally group for purpose, why not structure an entire economy according to *purpose*? And rather than having two hundred thousand groups working on, say, making clothes, just have one. One group for each purpose. When we say 'one clothing

group' we don't mean one factory somewhere making everyone's clothes. The *purpose* of 'everyone has clothes' is one group, and that group will be structured in a complex way throughout the whole world depending on where labour, resources, production capacity and consumers may be. That is, the one clothes group, is a unified, many branched, well organised group. We no longer have groups destructively competing with each other to make the same stuff, we're able to focus on how to do anything that the market wants really well, hire the most reputable people, and fund it.

6.2 Profit rather than plunder

A unified mechanism enables a world-scale economy to account for all transactions globally so that all prices reflect all and only their own costs. An economic system that, by design, does not externalise costs, makes a fundamental distinction between profit and plunder, and provides a mechanism that incentivises 'valuable' behaviour and dis-incentivises 'harmful' behaviour.

6.3 A unified economic structure

In the context of geography, we each have a specific interest in local matters, where we live, and a more general interest in what happens further away, in another country. That is, one might have a specific interest in the way water is managed locally, and a more general interest in the way water is managed globally. Both aspects are important, and so we need a system that can manage the difference between the 'specific' and 'general' aspects of all contexts. Imagine a system, that would represent your interest in the water you drink from your own tap, and your interest in global river and ocean quality. We are all stakeholders in both local and global aspects, so it's obvious that we need a system that can meaningfully account for both.

Let's look at another example. There would be one global engineering group. It's only 'one' in the context of the whole economy. In the context of 'geography' there might be many engineering sub-groups, one for each country, and then contextualised further into smaller groups like cities and towns. That is, forked into country/city/town. Even though technically there is just one group, that group can be fantastically complex and diverse. Each aspect of the global economy will be complex and yet remain a structured part of the whole ontology. This way the system can create and manage stunning diversity and variety. This is how the Autonomic economy structures its resource and participants. A world-scale accounting perspective enables efficient resource management.

We have become so used to the current production mechanism that it's difficult to imagine the whole thing working a very different way.

7 The role of an intelligent economy

This can be viewed from two perspectives. One, from the individual perspective, and two, from the perspective of the economy itself.

7.1 From the individual's perspective

The individual is a human being, with human behaviour. As just one person, we can't possibly see how the whole world is functioning, and we shouldn't have to. We need simply optimise our own life, by working to earn purchasing power. Individuals are expected to behave in ways that best optimise their own well-being. It's normal for people to want good things, jobs they enjoy, wealth and a healthy economy to enjoy their purchasing power. The role of the economy from an individual's perspective is to offer good jobs, for fair wages, and good products at fair prices. A sustainable free market economy would maintain high levels of purchasing power and stable value of money for everyone. A trustable mechanism ensures that many individuals can use it, knowing that the overall and long term effect is in their best interests.

7.2 From the system's perspective

The system is a mechanism, with mechanistic behaviour. From the system's perspective, its purpose is to organise and engage all labour to produce all products that consumers want. This includes providing economic incentive to labour and to provide consumers with enough purchasing power to meet their individual needs. Or even more simply put, the system's purpose is to purchase labour, to make products, and sell them to the market place. The purpose of an intelligent economy is not to make a profit as such, that is, try to end up with more money in its pocket. Its function is to provide a mechanism whereby participants can make a profit, expand the marketplace and increase the overall and long term wealth of the group.

8 Conclusion

By creating a fundamentally new kind of money, Autonomics provides society with an effective way to organise and fund industry, creating useful jobs and wealth for all participants.

An economically arbitrary money tool, like fiat currency, by its design, fragments government, business systems, the Internet and ultimately society itself. It is unstable and unsustainable. Without optimising money, governance and reputation systems, we, as a species, are severely limited in our ability to produce, organise, relate and expand. Without an efficient and effective money tool, humanity can't optimise for survival. We believe

that the economically arbitrary design of money is the root cause of most of the world's problems. If we are to optimise humanity's incredible innovative ability we must create an economic system to meet our productive ability. A self governing and trustable free enterprise system is the foundation for a collaborative age.

Our individual well-being is ensured when we're all safe on a healthy planet, and this can only be achieved when we can collaborate effectively together using an intelligent economic system. As the science of a self-determining society, we believe *Autonomics* is the future of humanity's financial, governance and reputation systems.

9 What's possible?

Look at the complex modern world we've built over the last few centuries. Why is it specifically this way? Just the idea that there's any number of possible ways we could have built our modern society, helps us to consider new ways of where we could go next. To genuinely redesign our global society, we'd be remiss not to consider what has caused, and is still causing society itself. Then, and only then, could we possibly hope to actually 'make a difference'. An intelligent, sustainable, wealth generating, environmentally sustainable difference for us all. Why not? If we redesign the systemic cause of our society we can do anything.

Our vision is for a wealthy and sustainable economy, culture and environment.