TITLE: Trust architecture
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ABSTRACT

The ongoing economic crisis has changed our relationship with money, financial institutions and each other – altering people's views on trust and reputation. We are moving into a new era of non-hierarchical networked trust, stemming from our monetary exchanges, which will become solely digital; while our online reputation will determine other's confidence in us.

Money is a representation of the value of goods and services, and thus, a charter of trust. The holder of a 5€ banknote knows they can exchange it for goods to the value of 5€ and the seller of the goods will accept the tender. Runaway inflation causes panic because people lose trust in the currency– similarly, when financial institutions fail because of massive speculation, their customers' trust evaporates. Trust, once lost, takes a generation (or re-branding) to rebuild.

Bank architecture has changed from building solid and impenetrable structures, to creating transparent and flexible workspaces, mimicking a shift in branding. Banks now incorporate cafes or open spaces into their interiors, buying and showing art collections for their vacuous foyers, and emphasise the personal connection they have with their customers through homely interiors. Advertisements paint images of security, modesty and stability – no brash statements of ostentatious wealth or power. All of these designed signals suggest banks' desire to appear more open, flexible and transparent.

The newest banks have no visible physical infrastructure. They are merely digital connectors between people who want to lend and those who want to borrow. These are peer-to-peer banks, which connect clients online through distributed systems to spread risk. Lenders can choose safer investments at lower rates, or more risky ventures with greater rewards.

The infrastructure needed to power a peer-to-peer bank can be reduced to code and a secure server – an underground bunker out of sight. Just like money became digital, banks are disappearing into black boxes. Instead of a teller, an FAQ greets the client. Still – these 'banks as connectors' must determine if their clients are trustworthy. Banks such as Zopa or Auxmoney who connect peer lenders still determine trust through credit rating, but this is also starting to merge with other online systems.

Repstamp proposes to determine reputation by combining ratings from different sites, including eBay, Airbnb and Linked-in. The Whuffie Bank was an online service that measured client's reputation according to social media standing. Soon, as online transactions dominate, these digital forms of trust and reputation will connect with online lending services, building a non-hierarchical and networked infrastructure of exchange, disconnected from the offline world.

Trust is becoming a rare commodity in the finance world. There are ventures developing novel ways of measuring our faith in others, in parallel with a growing dominance of digital transactions. Will the transferral of trust to a measurable digital form change how money informs our culture? Or perhaps this new online space is a heterotopia of money culture – where all actions are accountable and traceable, but the lawlessness of the digital world permits players to bend the rules.

MAIN TEXT

Banks are changing in order to be more trustworthy. Their retail shopfronts use transparent glass screens, a sense of homeliness and comfort, flexible working environments and a greater focus on service to convince customers to bank with them. In this paper, I examine several factors that influence trust in banks and money, including the digitisation of currency and bank architecture and interiors. As banking becomes virtual, interface design and even systemic design delivers trust in a new way. Peer to peer banks are changing money lending into a new era of non-hierarchical networked trust. Our monetary exchanges will become invisible and solely digital, and our online reputation more visible.

IN MONEY WE TRUST

Money is nothing without trust. Money is a representation of the value of goods and services, and thus, a charter of trust. The holder of a 5€ banknote knows they can exchange it for goods to the value of 5€ and the seller of the goods will accept the tender. They agree that the banknote holds this value. For now, there are few workable alternatives to earning money to buy the things we consume. We are swept up with trusting money, and the systems that require this trust.

Banknotes and coins are designed with symbols of power, wealth, national or regional identity, and security to generate trust. The design of the Euro banknotes attempted to bring together a broad variety of cultures by incorporating architectural and engineering symbols from around the continent. They used images of windows and doors on the front of the note and bridges on the back as symbols of connection throughout Europe. They are not drawn from real examples, which would bias certain countries, but instead are typical of the 'seven ages of cultural development'. The engravings are at once representative of Europe's history, and symbolic of a connected culture. Other symbols on banknotes range from national figures like scientists, politicians, philanthropists and royalty; to icons of nature, progress and strength. Churchill will feature on the new £5 polymer notes to be introduced in 2016, in Britain.

Images on the note, the material, and manufacturing techniques make money harder to forge. Guilloches, the repetitive wavy patterns on notes, are a difficult mechanical method of engraving printing plates. Limited access to this technology, and the difficulty in replicating the result made them useful to prevent counterfeiting – the design lives on in printed polymer notes. Similarly, holograms, security threads and watermarks are difficult to copy and are utilised in banknote printing.

All our money and money-infrastructure must work to build our trust, since it has become completely unlinked from any real value. Perhaps stemming from the Nixon Shock in 1971, and more recently as money became digitised, we have become disconnected from virtual currency. Transactions with physical money are becoming more rare. In Sweden in 2012, only 2.7% of transactions took place with bills and coins[1]. Consumers around the world can conveniently touch with new cards, up to $100 without identification, so that buying has become as effortless and frictionless as possible. Concurrently, 'paying with plastic' signifies the social acceptance of debt, and a demonstration of disconnection with real value. While investigating this relationship with college age students, researchers concluded, 'the money involved in credit card transactions is abstract and unreal.'[2] As money becomes digital and invisible, trust in the idea of money remains even though the physical symbols have disappeared.

However, if trust in money is lost, it's is easily restored: by rebranding it. During dramatic inflation in Brazil in the mid 1990s, the Finance minister requested the help of economists, who implemented 'Plano Real'. They introduced a new non-monetary currency called the Unit of Real Value (URV) to replace the inflated currency, the cruziero. All consumables were given a price in URV, which did not change daily, while the cruziero price doubled every month. When the URV had reached saturation point and citizens believed in the stable value of the fictional currency, the economists transformed the URV into the *real* as the actual currency. So, in a country where inflation is rife, and the citizens have no trust in what money will be worth tomorrow, stability even in the form of a virtual currency can help to gain trust.

Other virtual currencies reform our idea of trust in money. Bitcoin turns the relationship between trust and money on its head by delinking trust with users, and making all transactions and holdings visible. It accepts that its users are potentially untrustworthy. Bitcoin is designed to be completely transparent, decentralised and managed by the most amount of people possible; producing trust out of a system guided by many and no one all at once.

Built from the ideas of Bitcoin, Ripple is a platform for transferring digital currency. It's possibly more user friendly than Bitcoin, and is protected by similar encryption technology. Users open wallets where they can deposit fiat currency or commodities, and then transfer them to another account through gateways and XRP (the Ripple currency). Transferring money around the world has until recently been the domain of large institutions, because of the complex connections, necessary capital, global influence and implied trust that is required. In Ripple, trust is made real through 'trustlines', where users rate the trustworthiness of different gateways (often banks) with a transfer limit. Trust is quantified in monetary value, and is representative of the chance that the gateway may default. The more a user is willing to transfer through a gateway, the more trustworthy it is.

Our relationship with money is primarily based on trust, which is attributed to money from the institutions that print it, hold it, or other people with whom we

must have reciprocal trust to trade. The digitisation of money has rendered it abstract and unreal, yet it can be rebranded to regain trust. New Internet phenomena like bitcoin and Ripple change the entire architecture of earning and exchanging money.

HOW TO TRUST A BANK

Trust is essential in situations where risk, uncertainty and interdependence exist[3]

Money has formed a relationship between all walks of life, rendering it indispensible for conventional modern living. It is difficult to be interdependent from money, but we are not tied to one financial institution. Hard earned money cannot be kept safely underneath our pillow, while we are convinced that we can grow our savings if we invest wisely. The next step is: which bank to choose? We can only decide on a bank by what we see, hear, feel and comprehend. Our decision making process is changing, primarily because of the Internet. From the connectedness that the web affords, we now expect banks to be accountable, transparent, responsible, responsive and courteous. These expectations are changing the architecture of banks, as well as their marketing and services.

TRUST IN BANK ARCHITECTURE

Banks differ in their architecture, depending on their function. Reserve banks hold reserve currency and bullion, as well as offices that manage various rates; retail banks deal directly with customers, and investment banks raise clients and businesses' capital.

Reserve banks were previously strongholds of the state, holding gold and banknotes. They issue currency and keep track of its stability. The role of reserve banks in different countries varies, but their architecture is similar. They are imposing buildings, mixing a sense of governmental capital with a solid impermeable exterior. Some reference classical architecture with stout columns and extravagant lobbies, seeking a 'structural expression of strength, stability and security'[4]. Modern reserve banks hide their function, as they hide their reserves. The Federal Reserve Bank of Virginia has half of its floor space underground, while its anonymous brutalist towers are unadorned. [5]

Investment banks are more anonymous in public, since they do not relate directly to most individuals. They have a small but wealthy client base. Buying and selling securities is their largest business. The vision of stock market trading is of traders yelling and waving on the floor of the stock exchange - it now largely happens silently behind computer screens. Stockbrokers can stay enclosed in the mini cities within bank buildings, where they are equipped with gyms, cafes and ablutions facilities[6]. These buildings isolate employees from the outside world, leaving the image of bank controlled by marketing, as a vision of a strong but transparent edifice in the city.

Retail and Commercial banks have a larger client base, and so must maintain their public reputation. The public part of the bank operates with a more retail

aesthetic, as shopfronts within other constructions rather than standalone buildings. They are flexible and small and can move to new locations as required. In modern banks, cash may not be kept on the premises. Their business here is advice, and the interior mirrors this service-based culture.

Bank architecture is changing most visibly in the retail sector, which also has the highest redesign rate. The focus of this analysis is on Retail banks. Investment banks continue to collaborate with starchitects to build glass and steel edifices of wealth. For DNB ASA, Norway's largest financial group, MVRDV included 'a transparent trading floor, a sheltered public passage, respect for urban view lines and collective terraces overlooking the fjord to the south. The glass and brick exterior expresses both the transparency and stability of DNB as a modern financial institution.' [7] Reserve banks and are only built on the occasion of new sovereign states like South Sudan, whose president signed a law to establish a central bank six days after gaining independence.

Retail banks are changing their image with transparent glass screens, a sense of homeliness and comfort, flexible working environments, a flatter hierarchy and a greater focus on service. All of these designed signals suggest the bank's desire to appear more open and trustworthy.

Transparency is an overwhelmingly desirable quality in the modern world as a metaphor for openness and accountability. It is present in codes of conduct and as a symbol of corporate social responsibility.[8] As a direct metaphor of transparency, banks have changed to allow visitor's gaze to pass through their interiors courtesy of glass dividers. Tellers are housed behind tempered glass sheets instead of concrete walls or steel bars. Even meeting rooms and consultation offices have glass walls, with pull down blinds for better privacy. As a result, transparency is an opt-out clause, rather than opt-in. Retail outlets, like Apple Stores, increasingly use glass facades, which tempt customers to look in and observe the merchandise. It is potentially a technological metaphor, as glass is 'the forefront of invention, the extreme edge of structural investigation and material innovation.'[9] Transparency and technology help banks seem more accountable.

Banks create comfortable environments for clients while they wait, or to conduct business in their office. They may provide couches; free beverages, free Wi-Fi and access to online banking. Retail bank shopfronts now exist as part of indoor malls or outdoor shopping precincts. The relaxing spaces inside are especially for a tired spouse or kids. Giving up this space and these courtesies 'designs a symbolic landscape that provokes associative moods and dispositions'[10] in the client. By offering this service, banks seem more personable and generous.

The flexibility of retail bank environments depends on numerous service personnel who can perform different tasks. They flit around the office, filling in home loan applications or helping to deposit cash in an ATM. This service oriented approach tries to build a mixed office and retail environment. Open plan, hot desking space encourages community and sharing information. An office such as this implies less hierarchy and more decision making authority of

individual tellers, making clients feel like they are closer to someone who can help. Banks now position a standing service teller desk near the front of the store (like a retail outlet) to deal with client questions as they arrive.

Redesigned retail bank shopfronts help banks brand themselves as service centres. In digital terms they are a user interface front for a complex backend. The bank shopfront is just the tip of the iceberg of the entire bank system, as is architecture just one of the elements banks use to build trust.

HOW BANKS COMMUNICATE TRUST

All banks now try to keep customers and attract new ones with a brand which users identify with. In addition to their architecture, banks are changing their advertising, marketing strategies, logo designs, and service.

In 2013, Rabobank, originally a humble farmers bank –*boerenleenbank*- used advertisements which referenced social media photos to indicate a connection to a younger generation, and implied appreciation from the new house owners to Rabobank. Picturing happy and relaxed customers is not a new strategy, but it is to use the graphic language of social media. It engenders a new type of trust which accompanies 'word of mouth' online sharing. Facebook users regularly ask their online friends for advice, on music, parties, travel, and purchases: so why not investments?

Citibank successfully used the New York bike-sharing venture, cleverly named *Citibike* to reach the public and market themselves as a responsible and sustainable company. They initially accepted an estimated $476 billion in government bailout money, while the Citibike scheme cost them $42 million, less than 1/11,000th of their taxpayer gift. Citibank pay for the bike sharing naming rights to Goldman Sachs. Citibike as urban infrastructure builds a public image of Citibike for Citibank, and a responsible investor profile for Goldman Sachs, who funded the system through their Urban Investments Group. It earns reputation and returns through 'making investments and loans that benefit urban communities.'[11]

In a re-branding effort to relate more to Asian customers, the Australia New Zealand Bank (ANZ) commissioned research that found that clients want a more 'people shaped' bank with an uncomplicated banking experience. M&C Saatchi delivered a people shaped logo, built on the idea of the lotus. In Buddhist iconography the lotus represents rebirth, fortune, purity and faithfulness. The rebranding was considered a safe banking move, from a strong and fast logo to a more simple, accessible and Asia appealing identity.

In 2003, the Commonwealth Bank of Australia launched the 'Which new Bank' program, which invested $1.2 billion AUD to transform its service record. They aimed to provide 'excellent customer service through engaged people supported by simple processes.'[12] The CEO, Ralph Norris, declared it to be 'one of the most sophisticated customer relationship systems.'[13] The system reduced queues and put a customer service person at the front door of every bank, with a standing

desk for quick queries. Banks which held cash had their teller desks redesigned to be more transparent. Consultation desks without security measures were made available.

Architectural, marketing and branding changes are nothing new, especially in companies with high profits. However, the image of the banking sector has needed to respond to the financial crisis. Banking has avoided a significant shakeup from the introduction of the Internet, unlike publishing, commerce and education. The next section will show how banking has benefited from the digitisation of the financial sector – they have taken advantage of the ability move money faster, in more discrete ways.

DIGITAL TRUST

When Northern Rock, a British retail bank, folded in 2007, its customers were seen politely lining up outside the bank in a contemporary civilised version of a bank run. They were all there to withdraw their cash. Of course, the bank branches themselves did not hold the notes and coins that their customers had deposited with them. The Bank of England made a historic guarantee that all clients would have their savings eventually returned.

The dissolving of physical money to digital money means that both investment and retail banks do not have cash in their vaults, but have numbers in their spread sheets, in secure servers, in rooms cooled to optimum operating speed. In 2010, the British economy had £57.7 billion of cash in circulation and another £142 billion in bank's operational deposits with the Bank of England. This indicates that 'real' money made up about a quarter of all money in circulation in Britain in 2010.[14] The servers which hold this data are impenetrable and invisible. One Microsoft manager marvelled at the security, remarking, 'a data centre used to be the corner closet in the IT dept. Now they have finger printing, almost DNA testing to get in.'[15] Banks may become service counters with fast Internet connections, sitting above basements full of computer servers.

The facades of data centres are anonymous, keeping their precious contents secret. They become black boxes that hold our information. We trust that they are safe and secure. As Bruno Latour suggests: ' scientific and technical work is made invisible by its own success. When a machine runs efficiently, when a matter of fact is settled, one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become.'

Trading banks are the main users of this data power, to conduct High Frequency Trading: using algorithms to buy and sell by the millisecond. This money moves much faster than it could by human hands, and without the direct knowledge or consent of people. Black box trading using algorithms constituted up 50% of the US stock market in 2012.[16] The speed and quantity with which money moves is astounding, illustrated best by the 2010 flash crash, when the Dow Jones plummeted about 10% in minutes, and then recovered. A Hollywood blockbuster about the flash crash is currently in production.

When a process uses time increments (picoseconds) or amounts ($500 billion) which are past the scale of our experience, we feel disconnected and distrustful. Personal trust may be instinctive, but trust in a company or inanimate object is gained through direct experience. People who say they trust digital trading are speaking of something more like blind faith.[17]

Regardless, digital representations of value, either new currency like bitcoin or virtual numbers which represent cash are a new reality. The shared acceptance of the digitisation of value, along with a new online trust economy has helped to produce new methods of dealing online, like peer-to-peer (P2P) banks. These banks operate similarly to social networks, acting as an arbiter of trust between users. Trust then, is important in others, as much as it is important in the central connector or platform. Reputation is important for users to maintain, so that others can trust them.

PEER TO PEER BANKS - NON-HIERACHICAL NETWORKED TRUST

Peer to peer (P2P) banks connect people who want to lend with people who need to borrow. P2P banks have no visible physical infrastructure in our urban centres, or shopfronts one can visit when there is a problem with an account. Lenders can choose safer investments at lower rates, or more risky ventures with greater rewards. Some have suggested that P2P lending 'can be understood as specifically 21st century communities of financial interest based on an intersection of individualism and community.'[18] Although peer-to-peer banks use the language of community, they are solely individualistic. A sense of community is nothing but a financial form of green-wash, which invites lenders to feel like they are doing good for others. This type of return-assured banking cannot be considered as communal or altruistic. P2P banks are not, as some consider, a modern version of friendly societies.

The most successful P2P banks (in size of new loans per month) are Zopa and Ratesetter in the UK, and Lending Club and Prosper in the USA. They are backed by venture capital firms - high-risk high-growth versions of investment banks. Just as retail banks must gain or maintain trust in their shopfronts, so too must peer-to-peer banks on their websites.

P2P banks are known for their active transparency – or rather they show elements that up to now have been hidden. For instance, the loaning body may be able to choose a project they would like to lend money to, and can also support more ethical choices. This investment of emotions and trust was previously seen as a burden, whereas in a P2P network, it's seen as an asset. Ratesetter has a 'Provision fund', like a cushioning system to pay lenders whose borrowers miss a payment. Ordinarily, banks have this capital stored in amounts much greater than the £3 million which Ratesetter hold, but they do not advertise the figure. By showing their buffer zone and also calculating their coverage of current loans, they build trust in the most basic of all lender concerns.

The limited size of P2P loans is an asset rather than a weakness. These banks manage their money flows on a much smaller scale. Some have predicted that they will not replace retail banks, as peer-to-peer banks cannot mature the capital they hold.[19] By capping borrowing amounts, peer-to-peer banks reduce risk to the individual, and effectively to the greater system. Using the internet to provide cheap, remote and distributed services is similar to designing an application, where a mass of people, paying small amounts, will make the industry worthwhile.

Retail banks form a barrier between their staff and their customers. Peer to peer focuses their branding on becoming part of a community – the bank is a mere facilitator and safety net of lending and borrowing. Peer to peer banks strive to show a non-hierarchical system, and push a communal aspect - by investing at Zopa, 'you've helped someone like you.'[20]

Aside from Isepankur, P2P banks operate in smaller regions than traditional commercial or investment banks. They are bounded by the differences in laws and standards for banking, as well as limitations on cross border money movements. This means that they are in a sense more local, and for the time being, limited to one market. Isepankur was the first peer-to-peer bank to successfully cross these borders, starting off in the Baltics and Scandinavia and now available to 28 European countries. Their success has been allowing borrowing and lending throughout Europe, completely flattening the playing field from Spain to Sweden. Their website is available in 7 languages and includes a forum for discussion. Although they are one of the smaller players in terms of amounts of money, they allow lenders to begin an account with as little as €5, and assess each loan application, taking only about 5% of inquiries.

The design of P2P bank's identity is solely digital, and reduced to both an image through the website and backend experience of their system. Language and marketing become infinitely more important. Ratesetter and Zopa both use rounded welcoming fonts, with buttons that welcome the visitor to get started. They quote their interest rates proudly and display both media articles about their ventures, and their awards. They seem fresh, younger, and immediate and more like social networking websites. In comparison, Barclays and Lloyds TSB websites are dry and formal, showing a lack of relations to the customer, or perhaps, they are trying to attract more conservative clientele.

Peer to peer banks have developed a new methodology for creating trust through branding, stripping back their face to face customer service to automated and high rated vetting systems, and reducing their overheads. What happens to the next generation of digital natives who have no experience in the non-virtual finance world? What happens when they come to banking with only a digital credit rating?

AS MONEY BECOMES INVISIBLE, TRUST BECOMES VISIBLE

For an eBay seller, reputation and the resulting trust are the ultimate determinates of their business success. Feedback from users defines a rating, and

this is a clear indicator of how much a new buyer can trust that seller, in economic terms. Ratings of 97% are considered poor; eBay suggests looking for sellers with a 99% or better average. Sellers with low averages appear less in search results – so providing poor service is a slippery slope to losing trust and your business.

A study on trust on ebay in 2001 found that 'the Internet substitutes a much better distribution of what information there is for the much more limited, but more reliable information of traditional retail markets.'[21] The discrete nature and necessary accountability of digital systems means that this information is perceived as more accurate than real world experience. Reputation can be built by measureable standards.

Some systems aim to transfer their client's trustworthiness throughout the Internet. A venture called Repstamp can combine and compare reputation on various online marketplaces, to give users a transferrable, reputable identity. If one system declares that a user is trustworthy, and they link their accounts, then Repstamp believes they should be reputable elsewhere as well. They may even start a new profile on a new marketplace and carry their reputation there. If this transferrable reputation could be seen as a user's trustworthiness, then perhaps it could be used as a credit rating. Problematically though, each of these reputations is nurtured in a specific context, and as soon as it is transferred to another context, it loses its relevance. Reliable vendors of consumables on ebay are not necessarily good Airbnb hosts. However, they probably do have a keen interest in maintaining their reputation.

Reputation itself is not an end goal, but an evolving condition. Like an evolutionary feature, each social media user's goal is to boost their reputation, or at the least, prevent it from falling. Reputation maintenance has become a lucrative service, catered to by companies such as Reputation Defender.

Like poor credit ratings rendering a loan impossible, a digital reputation can be hard to shake. Science fiction author Cory Doctorow invented Whuffies, a reputation based currency in his first novel *Down and Out in the Magic Kingdom*: 'Whuffie recaptured the true essence of money: in the old days, if you were broke but respected, you wouldn't starve; contrariwise, if you were rich and hated, no sum could buy you security and peace. By measuring the thing that money really represented—your personal capital with your friends and neighbours—you more accurately gauged your success.'[22]

Whuffies have been compared to social capital, and sparked a book by Tara Hunt, called The Whuffie Factor. However, Whuffies are perhaps more like our relations to others in the Internet sphere than they are in the real world. In Doctorow's novel, all our social transactions are recorded and valued in different amounts, leading to a big picture of social standing.

A venture called The Whuffie Bank attempted to define Whuffies as a 'karma-like digital currency' by allowing people to link their twitter and Facebook accounts, and have their good deeds quantified. In the Whuffie Bank's own words

'reputation is wealth'. However, the correlation between real world and virtual reputation is not as strong as to be quantified and represented as currency, as John Henry Clippinger notes: 'Real-life reputation is subtle and dynamic, with personal and cultural elements. Most of the time it is inherently non-numerical. On the other hand, a digital reputation's representation of value is typically numerical, globally defined for all, simple to calculate and often publicly displayed – clumsy in comparison.'[23]

Whuffie Bank was clumsy. It sought to build reputation from connections to colleagues and friends, and translate that into social capital. Unfortunately, it ran into problems when relating one context to another (how many art Whuffies for a sport Whuffie?), and relied too much on popularity. Without the post-growth context of the book, Whuffies did not make sense as a global reputation currency. The bank ceased operation in 2012.

It seems difficult to transfer trust and reputation on the Internet from one context into another, including into real life situations. The dreams of online reputation enthusiasts, that 'the idea of karma displacing money as influence in politics is not realistic'[24]. Nevertheless, digital forms of reputation could connect with online banking services, building a non-hierarchical and networked infrastructure of exchange, disconnected from the offline world. It is certainly a possibility which Ripple is exploring

In relation to architecture, perhaps online trust and reputation will spur the success of online banks. If financial institutions rely on our online profiles, which are disconnected from the real world, then glass and steel bank buildings in city centres may be a thing of the past. Instead, we may find our bank services housed in remote data centres. Facebook opened one recently near the Arctic Circle, where the winter temperatures of -30° C help to cool the servers, which whirr every minute of the day.

Trust is becoming a rare commodity in the finance world. There are ventures developing novel ways of measuring our faith in others, in parallel with a growing dominance of digital transactions. Will the transferral of trust to a measurable digital form change how money informs our culture? Or perhaps this new online space is a heterotopia of money culture – where all actions are accountable and traceable, but the lawlessness of the digital world permits players to bend the rules.

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