

1

2

# Universal Kindness

3

A decentralized monetary policy and  
unconditional universal income  
guarantee, implemented using  
networks of social trust and  
cryptocurrency – an attempt at  
redistribution of wealth, and the total,  
direct and immediate abolition of  
poverty.

4

Will Breaden Madden

5

**DRAFT**

6

2019-07-10T1816

7

8

License/copyright: GPLv3 with attribution



## Acknowledgements

10 The name *Universal Kindness* was suggested by Karl Nordström, an occasional turn of  
11 phrase was suggested by Gavin Kirby, I was introduced to Murray Bookchin by Liam Moore,  
12 and Stephen Ogilvy has advised on the merits of linen.

# Contents

14	<b>Acknowledgements</b>	<b>i</b>
15	<b>Contents</b>	<b>ii</b>
16	<b>1 Introduction, motivations, caveats</b>	<b>2</b>
17	<b>2 What: some terminology</b>	<b>8</b>
18	2.1 Terminology . . . . .	8
19	<b>3 Why and how</b>	<b>9</b>
20	3.1 Imperial capitalism and the class system . . . . .	9
21	3.2 Artificial scarcity, technologies of decentralization and income . . . . .	11
22	3.3 Decentralized unconditional universal income guarantee system . . . . .	23
23	3.3.1 Blockchain . . . . .	25
24	3.3.2 Decentralized/distributed social trust graph as Sybil defense . . . . .	26
25	3.3.3 Demurrage, inflation and deflation . . . . .	28
26	3.3.4 Existence in tandem with other currencies . . . . .	29
27	3.3.5 Exchange rates . . . . .	29
28	3.3.6 National credit . . . . .	30
29	3.3.7 Revolution . . . . .	30
30	3.4 Monetary policies with guaranteed income . . . . .	33
31	<b>4 Other uses</b>	<b>36</b>
32	4.1 Reparations, debt forgiveness and wealth redistribution . . . . .	36

33	4.2	Direct democracy . . . . .	37
34	4.3	Surveillance and privacy, and proletariat control over the admissability of	
35		evidence into court . . . . .	38
36	4.4	Credit . . . . .	38
37	4.5	Similar, good ideas that may not be implementable using the proposed system	38
38	4.6	Fair use of resources intended for people as opposed to bots . . . . .	39
39	<b>5</b>	<b>Dangers</b>	<b>40</b>
40	5.1	Borders . . . . .	40
41	5.2	Tyranny of the majority . . . . .	40
42	5.3	Transparency . . . . .	41
43	5.4	Privacy . . . . .	41
44	5.5	Unintended consequences . . . . .	41
45		<b>References</b>	<b>43</b>

## Chapter 1

# Introduction, motivations, caveats

If a lot of people love each other,  
the world would be a better place to live.

Johnny



Figure 1.1

50 Pierre-Joseph Proudhon, the first anarchist and yet deeply problematic person, rejected all  
51 political action as a form of class collaboration and argued instead that the working class  
52 can achieve its salvation through economic action alone.

53 This document presents some ideas that are in pursuit of a society that values fairness  
54 and caring, intrinsically involving care of non-human nature, perhaps via some methods of  
55 communalist anarchy, and that has at its core the ideas that monetary policy should not be  
56 under the sole control of the wealthy, and that no one should have to work just to survive  
57 and have their fundamental rights protected.

58 Described in this document is a tool of social coordination to direct progress towards such  
59 a society: a monetary policy controlled by dictatorship of a proletariat. Decentralized  
60 networks of social trust and decentralized networks of cryptocurrency could possibly be  
61 used to create this decentralized form of coordination, a prioritised function of which would  
62 be a *decentralized unconditional universal income guarantee*. In short, we're talking about:



Figure 1.2

*To each according to their needs.*

Here, the slogan popularized by Marx has its symmetry broken because it could be interpreted as implying that there is scarcity of the resources required to ensure the needs of the people of the world, when this is likely not the case, as suggested by global food production capabilities, shown in Figure 1.3. This is with existing food production methods, which involve the atrocity called the animal industry. Leaving aside the horror of this industry, its inefficiency is remarkable: 16 kg of plants are needed to produce 1 kg of meat. A move to veganism would make the unreality of food scarcity even more clear.

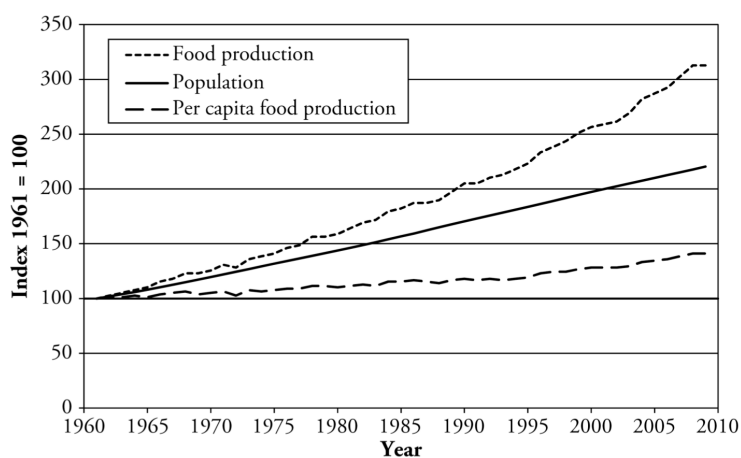


Figure 1.3: World food production from 1961 to 2009 [1]

Often socialists view an ideal economy as one in which remuneration is at least somewhat proportional to the degree of effort and personal sacrifice expended by individuals in the productive process. I argue that remuneration, or otherwise provision of fundamental needs, is a right (which is a need a person gets to demand) that should not be coupled with ability or desire to commit effort or sacrifice. I have in mind here the benefit particularly for the most vulnerable in society.

If there are scarcities of resources needed for protection of fundamental needs (and that is a big “if”), then we do at least have guidelines on what some of the most important needs are, such as the *Universal Declaration of Human Rights* [2] (UDHR), and on how needs are prioritized, an example of which is the *Corte Suprema di Cassazione* ruling on Roman



81 Ostriakov [3], who stole some food in an action that was ruled a necessity for life; “il diritto  
82 alla sopravvivenza prevale su quello di proprietà” [the right to survival prevails over that of  
83 property] [4], which was based on the Italian legal doctrine ‘Ad impossibilia nemo tenetur’  
84 [‘No one is held to do the impossible’].

85 Poverty exists even in the wealthiest nations. For instance, Philip Alston, the United Na-  
86 tions Special Rapporteur offered a statement in 2018 on extreme poverty and human rights  
87 violations in the contemporary UK [5].

88  
British compassion for those who are suffering has been replaced by  
a punitive, mean-spirited, and often callous approach apparently  
designed to instill discipline where it is least useful, to impose a rigid  
order on the lives of those least capable of coping with today’s  
world, and elevating the goal of enforcing blind compliance over a  
genuine concern to improve the well-being of those at the lowest  
levels of British society.

---

Philip Alston, 2018 [5]

89 If you are anarcho-curious (phrase stolen from Nathan Schneider), an introduction to the  
90 topic of socialist versions of anarchism is provided by the Philosophy Tube video *Intro to*  
91 *Anarchy: Power & Violence* [6]. A more full introduction to anarchism is offered by Noam  
92 Chomsky in *On Anarchism* [7]. One aspect of anarchic thinking is its power to show as  
93 unjustified the various forms of power, domination and hierarchy that exist in society, as  
94 Chomsky puts it, “exposing power to the sunlight and seeing it evaporate” [8]. An early  
95 comment on balanced anarchy yielded by computer networks was given by James Burke in  
96 the 1985 documentary series *The Day the Universe Changed* [9].

In describing this utopia as “anarchism,” I might have also used an equivalent expression – “anarcho-communism.” Both terms denote a stateless, classless, decentralized society in which the splits created by propertied society are transcended by new, unalienated human relationships. An anarchist or anarcho-communist society presupposes the abolition of private property, the distribution of goods according to individual needs, the complete dissolution of commodity relationships, the rotation of work, and a decisive reduction in the time devoted to labor. As this description stands, however, we have little more than the anatomy of a free society. The description lacks an account of the physiology of freedom – of freedom as the process of communizing. The description, in effect, lacks those subjective dimensions that link the remaking of society to the remaking of the psyche.

---

Murray Bookchin, *Post-Scarcity Anarchism*

98 Strict self-sufficiency approaches like Mao’s backyard pig iron and Angka’s isolationism  
99 have proven to have a high likelihood of failure, and don’t conceptually work well in a  
100 world of diverse location-based resources. Scotland has wind; Sudan has sunlight. So  
101 a cautious implementation is suggested, perhaps a gradual one with voluntary groups of  
102 people choosing to coordinate, while also dealing strongly and carefully with the predatory  
103 forces of capitalism, corporatism and the like.

104 There is a tendency for human-created ideas to vastly prioritise human needs over the needs  
105 of other people and creatures and systems of life. I want to emphasise that the use in this  
106 document of words such as ‘person’ are to be extended beyond humans to others in nature,  
107 including those created by human designs. I want to emphasise also that a fairer society  
108 can be conceptualized only if there is a strong response to the climate emergency [10], and  
109 that the climate emergency has been caused to varying degrees by projects concerned with  
110 domination, profit, growth, structural violence, and general unconsidered unfairness in how  
111 humans treat other humans and life generally.

112 The book *Utopia for Realists* by Rutger Bregman makes the statistical, economic and his-  
113 torical case for open borders and implementation of a universal income guarantee. At a panel  
114 session in Davos 2019 (which was popularized by Bregman emphasising the need for vastly

115 greater taxation on extreme wealth), Bregman links the socio-economic benefits of war-time,  
116 such as reducing wealth inequality, with the framing of responses to the climate emergency  
117 as “the moral equivalent of a war”. This is an inventive approach that should be investi-  
118 gated, because it offers the possibility of addressing the climate emergency in tandem with  
119 the possibility of improving social wellbeing [11]. The *Global Green New Deal*, as supported  
120 by Alexandria Ocasio-Cortez and others, might be used for this purpose [12].

121 Caveat: if the mere existence of a form of commodification, such as the system proposed  
122 herein, impedes progress towards a better world, perhaps by supporting surveillance capi-  
123 talism in some way, then this tool and others like it should be dismissed;

The examined life is actually not worth living.

124

Natalie Wynn [13]

125 There is a tendency for the powerful to attempt to claim nice-sounding phrases, such as  
126 “Universal Credit”. The UK Universal Credit system is a welfare payments system that  
127 features sanctions and resulting deaths. It is possible that the use of this terminology by  
128 the UK Tory government combined with the disastrous effects of its implementation will  
129 scare people that have been subjected to it into fearing any change to the existing welfare  
130 system and may even induce fear of terms like “universal” because they can represent  
131 oppressive and painful changes. Even terms like “benefits” are manipulative and imply that  
132 welfare is not a right, but a privilege. So, I make no apologies for the use of the laborious,  
133 redundancy-high, term

134 *decentralized unconditional universal income guarantee*

135 because it is more difficult to change the meaning of a larger number of words than a smaller  
136 number. I explicitly exclude terms like “citizen” because an income is demandable by anyone  
137 who needs it.

## Chapter 2

# What: some terminology

### 2.1 Terminology

Some slightly non-standard terminology is used in this document, so some of it is qualified in Figure 2.1.

Term	Description
Guaranteed income	A guarantee of money given to a person universally and unconditionally and reliably of an amount defined by some monetary policy.
Guaranteed basic income	A guaranteed income of an amount sufficient to cover basic needs/rights.
Guaranteed median income	A guaranteed income of an amount corresponding to the median income of the relevant population.

Figure 2.1: Terminology

## 143 Chapter 3

# 144 Why and how

### 145 3.1 Imperial capitalism and the class system

146 The current monetary system is both impractical and unfair. Taken in political context, it  
147 concentrates a disproportionate power in a tiny minority of people. This promotes inequality  
148 and injustice and a wealth of other problems, and is readily abused for the purposes of  
149 manipulation and control. The current system rewards and encourages greed and selfishness.

150 There are many, many ways by which the capitalism system enables wealthy individuals  
151 and groups to gain political and legal and otherwise dominative and coercive power, some  
152 of which are lobbying, corruption, disinformation, manipulation and threats, and many of  
153 which involve the undermining of both thinking and wellbeing via stress and poverty. In  
154 societies that permit capitalism (or in those that do not sandbox it), there ends up being  
155 a working class – that is the people who work for someone else – and a capitalist class –  
156 who are the people who have people work for them – and a middle class, which is usually  
157 comprised of working class people who live comfortably with noticeable social privileges  
158 relative to working class people, and those who manage the working class for the capitalist  
159 class (and someone self-employed may be a member of the petite bourgeoisie).

The United States is deeply in debt – that was part of the whole Reagan/Bush program, in fact: to put the country so deeply in debt that there would be virtually no way for the government to pursue programs of social spending anymore. And what “being in debt” really means is that the Treasury Department has sold a ton of securities – bonds and notes and so on – to investors, who then trade them back and forth on the bond market. Well, according to the Wall Street Journal, by now about \$150 billion a day worth of U.S. Treasury securities alone is traded this way. The article then explained what this means: it means that if the investing community which holds those securities doesn’t like any U.S. government policies, it can very quickly sell off just a tiny signal amount of Treasury bonds, and that will have the automatic effect of raising the interest rate, which then will have the further automatic effect of increasing the deficit. Okay, this article calculated that if such a “signal” sufficed to raise the interest rate by 1 percent, it would add \$20 billion to the deficit overnight – meaning if Clinton (say in someone’s dream) proposed a \$20 billion social spending program, the international investing community could effectively turn it into a \$40 billion program instantly, just by a signal, and any further moves in that direction would be totally cut off.

---

Noam Chomsky, *Understanding Power*

161 This scenario suggested by Chomsky, considered with sufficient economic skepticism, is just  
 162 one way by which a coordinated campaign by the wealthy can be formed against a social  
 163 program in order to make it prohibitively expensive.

164 In almost all countries, income and wealth inequalities have increased vastly, partially de-  
 165 fended and concealed from traditional legal systems and economics by wealth stashed in  
 166 tax havens. We have changed from a post-war time of liberalized financial markets to one  
 167 of rentier capitalism, wherein more and more wealth and income is siphoned by owners of  
 168 financial, tangible and intellectual property, leaving even wage labour incomes to stagnate  
 169 and reduce. Governments, often under the financial control of the wealthy, have increased  
 170 subsidies and tax cuts for the wealthy while reducing the welfare states and making such  
 171 things as welfare payments difficult to obtain, often to a deadly extent. Even more alarm-

172 ingly, we see capitalist growth destroying the environment.

## 173 3.2 Artificial scarcity, technologies of decentralization 174 and income

I am now convinced that the simplest approach will prove to be the  
most effective – the solution to poverty is to abolish it directly by a  
175 now widely discussed measure: the guaranteed income

---

Martin Luther King, Jr.,

*Where Do We Go from Here: Chaos or Community* (1967) [14]

176 The *Emergency Economic Stabilization Act of 2008* became law on 3 October 2008 for the  
177 purpose of bailout of banks in the 2007–2008 sub-prime mortgage fraud.

178 While development of ideas like it took place over many years, the original *Bitcoin* paper [15]  
179 was then released on 31 October 2008, in possible response to this bailout, with the coinbase  
180 field of the genesis block stating “The Times 03/Jan/2009 Chancellor on brink of second  
181 bailout for banks.” [16]. While the bailout act of 2008 was followed up by the *Dodd–Frank*  
182 *Wall Street Reform and Consumer Protection Act* in 2010 to reduce fraudulent and risky  
183 behaviour, Bitcoin has continued to grow and has resulted in the development of a vast  
184 collection of other cryptocurrencies.

185 Just as Napster and BitTorrent led to a global decentralized mechanism of opposition to  
186 artificial scarcity of easily-duplicable data, and a decentralized mechanism of protection of  
187 certain rights, such as the UDHR Article 27(1) right to cultural participation and artistic  
188 enjoyment, so too has Bitcoin become a global decentralized mechanism that bypasses au-  
189 thoritarian mechanisms of enforcement of monetary policy, and a mechanism of protection  
190 of certain rights, such as the UDHR Article 12 right to privacy (applicable in the case of  
191 being able to access drugs currently called illegal by authoritarian regimes), the UDHR  
192 Article 22 right to economic participation (of particular benefit to people in poverty who  
193 cannot access banking systems and who are excluded because of risks of fraud) and the  
194 UDHR Article 19 right to freedom of expression (I will accept an IOU from anyone I per-  
195 sonally deem fit, thanks very much). It also assists in decreasing economic borders, such

196 as country-level sanctions and the forced sale of work for unfair rates. We see explorations  
 197 of blockchain social networking with Memo [17]. We see the Bitcoin blockchain used as a  
 198 notary with Satoshi Proof [18], whereby data can be reliably timestamped. We saw M-Pesa  
 199 change from a measure of phone air-time to being a proxy used for money transfer. With  
 200 government viewed as being substantially a form of technology, many other decentralized  
 201 systems hint at other ways of forming and operating a decentralized government. One is the  
 202 gradual migration of people away from brand loyalty to ratings loyalty. One is the usage  
 203 of VPN servers in various countries. As seen in the VPN server loads per country shown in  
 204 Figure 3.1 and Table 3.2, perhaps certain inferences could be made about the popularities  
 205 of various countries in terms of their privacy, legal or government climates.

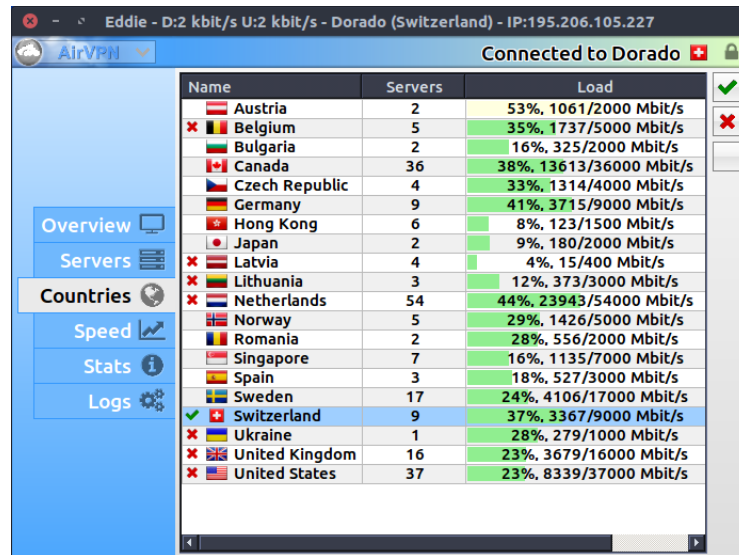


Figure 3.1: Load on VPNs of various countries in April 2019



Country	Load (%)
Austria	53
Netherlands	44
Germany	41
Canada	38
Switzerland	37
Belgium	35
Czech Republic	33
Norway	29
Romania	28
Ukraine	28
Sweden	24
United Kingdom	23
United States	23
Spain	18
Bulgaria	16
Singapore	16
Lithuania	12
Japan	9
Hong Kong	8
Latvia	4

Figure 3.2: Ordered load on VPNs of various countries in April 2019

206 Another measurement of possible interest is the degree of punishment vetted out by states  
207 for various transgressions. The sheer weight of penal danger, and advertisement of such  
208 punishments, to those like Chelsea Manning and Julian Assange who exposed information  
209 on illegitimate power is perhaps someday guiding.

210 Article 25 of the *Universal Declaration of Human Rights* states:

211 1. Everyone has the right to a standard of living adequate for the health and well-being  
212 of himself and of his family, including food, clothing, housing and medical care and  
213 necessary social services, and the right to security in the event of unemployment,  
214 sickness, disability, widowhood, old age or other lack of livelihood in circumstances  
215 beyond his control.

216 2. Motherhood and childhood are entitled to special care and assistance. All children,  
217 whether born in or out of wedlock, shall enjoy the same social protection.

218 One way to ensure these UDHR Article 25 rights is through a decentralized mechanism  
219 of protection offered by a *decentralized unconditional universal income guarantee*. The de-  
220 centralization aspect is critical because it ensures the global and universal nature of the  
221 protection, distancing it from implementation by an authority (which could change or re-  
222 scind it, as has happened for other welfare measures in semi-welfare states like the UK) and  
223 reducing all borders (helping to progress to a point where no one is forced to sell their work  
224 at an unfair price).

Those at the lowest economic level, the poor white and Negro, the  
aged and chronically ill, are traditionally unorganized and therefore  
have little ability to force the necessary growth in their income.  
225 They stagnate or become even poorer in relation to the larger  
society.

---

Martin Luther King, Jr.,

*Where Do We Go from Here: Chaos or Community* (1967) [14]

226 A decentralized system such as that described here *is* a means of organizing the poor.

227 It is here suggested that an unconditional universal income guarantee is a possible way to  
228 undermine the inherent features of the capitalist system of oppression, domination, coercion  
229 and artificial scarcity, and it is also suggested that even if an effort to undermine those

230 systems were not successful, so making the artificial scarcity an intractable problem, that  
231 the unconditional universal income guarantee could be a plug-in economic mechanism that  
232 acts as a constant mitigation to the capitalist system (and other oppressive systems). As  
233 MLK put it, “*We have come to the point where we must make the nonproducer a consumer*  
234 *or we will find ourselves drowning in a sea of consumer goods.*” [14]. The Marx/Engels  
235 concept of *withering away of the state* is used to suggest that realization of the ideals of  
236 socialism using the social institutions of a state makes the realized socialism self-sustaining  
237 without the need for the state. In a complimentary way, though in the same spirit, the  
238 unconditional universal income guarantee could be a method of withering those mechanisms  
239 of oppression, both private and state, that impede both greater protection of known rights  
240 and the exploration that is in pursuit of unknown rights. Use of a decentralized income  
241 could be a *Propagande par le fait* [*propaganda by the deed*], a political action which is an  
242 example to others and serves as a catalyst for revolution. The idea is both to inspire a spirit  
243 of revolt by demonstrating that the authorities are not omnipotent, and to offer hope to the  
244 downtrodden. It is an approach that was approved in 1881 at the *International Anarchist*  
245 *Congress of London* [19].

246 It has been suggested that a guaranteed income is possibly best seen as a reform to the  
247 existing monetary distribution systems and as something that exists in a free market econ-  
248 omy. It could modestly reduce economic inequality in a number of ways, the least of which  
249 is likely to be because a flat-rate regular payment represents a larger share of the income  
250 of a poor person than it would for a wealthy person. It could reduce economic insecurity  
251 and chronic economic uncertainty by strengthening social insurance against flexible labor  
252 markets (the gig or “zero-hours”-contracts economies) and technological disruption, partic-  
253 ularly the continued rise of intelligent automation [20]. It, particularly as a decentralized,  
254 borderless system, could mitigate the global pandemic of stress and depression. Indeed the  
255 evidence suggests that even the guarantee aspect, rather than the exact size, of the income  
256 reduces the intensity and prevalence of stress, with that in itself giving people more control.  
257 Both the Ontario 2017 and Finland 2017 basic income studies (both of which were ended  
258 prematurely) suggested a sharp decline in domestic violence and depression. A guaranteed  
259 income would also mitigate the disgusting “targeting” approach for welfare payments in-  
260 flicted on poor people by governments through means-testing and behavior testing, often

261 implemented by for-profit private companies with a deadly conflict of interest. So in some  
262 senses an unconditional universal income guarantee is protection of the right to economic  
263 security. It also slightly disincentivises high-profit, low-effort activities. So, for example, a  
264 medic is recognised as more valuable to society than someone siphoning wealth off a hedge  
265 fund set up by their parent.

266 Another important consideration is that insecurity, inequality, stress and precarity may be  
267 associated with neo-fascism.

268 Global warming, climate change, pollution, and falling life expectancy rates all can be  
269 collected under one term: extinction. As was seen with *Mouvement des gilets jaunes* in  
270 France, unfair distributions of taxation are unpopular because the poor are made to pay  
271 proportionately more of their income than the wealthy. Steps in the right direction are seen  
272 in Canada and Switzerland, where high fuel and other eco-taxes are imposed with proceeds  
273 returned to the people in the form of “carbon” or common dividends. A cross-party group in  
274 the USA has advocated a similar approach with the support of 27 Nobel Prize economists.  
275 Basic income studies have shown that those that receive it tend to do more useful work that  
276 is ecologically and socially desirable, as opposed to resource-depleting labor (as Bregman  
277 calls it “bullshit jobs” – an example sometimes cited is that poor person selling plastic phone  
278 covers in markets).

279 The 2019 paper *Basic Income for All: From Desirability to Feasibility* [21] suggests that, in  
280 the UK, a *basic* income would:

- 281 • pay a significant, no-questions-asked amount of 10,400 GBP per year to a family of  
282 four,
- 283 • cut child poverty by more than a third and pensioner poverty by almost a third,
- 284 • narrow the inequality gap,
- 285 • lead to gains for three quarters of all households, with the largest gains among the  
286 poorest households,
- 287 • strengthen the universal element of the benefits system and reduce dependency on  
288 means testing and

289       • would take the UK back to the level of social security spending of 2010, but with much  
290       more progressive and universal outcomes.

291   The paper considers a few options for the introduction of a universal income guarantee,  
292   seeking to address particularly the usual criticism: that the income amount is either too  
293   small to make much of a difference or too generous to afford. I wish to emphasise that  
294   the exact amount of the income, which is distinct from other forms of social aid, such as  
295   disability support, *must* change such that it provides enough for fundamental needs. The  
296   10,400 GBP number is merely a guide number that is suggested by a paper considered in  
297   the context of the current political climate.

298   The 2019 paper *A Larger Us* [22] suggests three transitions that are needed for happier,  
299   healthier, more resilient democracies:

- 300       • from fight-or-flight to self-awareness,
- 301       • from powerlessness to agency, and
- 302       • from disconnection to belonging.

303   I feel it is possible that the guaranteed income system proposed here could assist with the  
304   second and possibly the third transitions.

305   The Stockton Economic Empowerment Demonstration (SEED) [23] is a city-led guaranteed  
306   income project which involves providing at least 100 people of Stockton with a guaranteed  
307   income of 500 USD for 18 months using prepaid debit cards. It plans to make a number  
308   of measurements, such as changes in financial wellbeing, psychological distress and physical  
309   functioning. For the case of financial wellbeing, measurements of income volatility and  
310   unsecured debt will be made. In similar experiments, it has been observed that individuals  
311   tend to use surplus income to pay down debt. For the case of the health indicators of  
312   psychological distress and physical functioning, measurements are to be made using the  
313   SF-36 survey and the Kessler 10 scale and through qualitative interviews.

314   The paper *No Strings Attached: The Behavioral Effects of U.S. Unconditional Cash Transfer*  
315   *Programs* [24] summarizes the empirical evidence from three major U.S. guaranteed income  
316   experiments. In these experiments, educational achievement increased, health outcomes

317 substantially improved, and there was little effect on labor market supply.

Two conditions are indispensable if we are to ensure that the guaranteed income operates as a consistently progressive measure. First, it must be pegged to the median income of society, not at the lowest levels of income. To guarantee an income at the floor would simply perpetuate welfare standards and freeze into the society poverty conditions. Second, the guaranteed income must be dynamic; it must automatically increase as the total social income grows. Were it permitted to remain static under growth conditions, the recipients would suffer a relative decline. If periodic reviews disclose that the whole national income has risen, then the guaranteed income would have to be adjusted upward by the same percentage. Without these safeguards a creeping retrogression would occur, nullifying the gains of security and stability.

---

Martin Luther King, Jr.,

*Where Do We Go from Here: Chaos or Community* (1967) [14]

319 As a decentralized plug-in, or *virus*, for existing political systems, an unconditional uni-  
320 versal income guarantee system might broadly be intended to move things towards equality  
321 of outcomes – for people, species and ecosystems generally (where equality of outcomes is  
322 here supposed to mean broadly a fair distribution of satisfaction with life, including satisfac-  
323 tion with degree of autonomy and perhaps including equality of perception), and towards  
324 non-competitive behaviours. One candidate form of politics for pursuit of this is Mur-  
325 ray Bookchin’s communalism. Shortcomings in the anarchic approach, however, concern  
326 tyranny of the majority; specifically, the author suspects that a more protective approach  
327 should be considered in order to ensure the needs of minorities instead of assuming that  
328 the anarchy system perfectly undermines tyrannical, dominative and oppressive behaviours.  
329 Welfare should be a part of whatever system is implemented to attempt to ensure that there  
330 is a social safety net that ensures that rights such as those listed in the *Universal Declara-*  
331 *tion of Human Rights* cannot be denied. An example of tyranny under a purported anarchic  
332 system is the pogroms, banditry and sexual abuse in the Free Territory of Ukraine [25].

333 The feature of the proposed system of a network of social trust also has the possibility  
334 of not just protecting the UDHR Article 27(1) right to cultural participation, but could

335 also increasing the extent of that right by encouraging people to participate more fully in  
336 society. However, as the income is unconditional, universal and guaranteed, there should  
337 be protections for those that do not wish to participate in the cultural life of society or  
338 are excluded from society, such as has been the case of despised minorities, examples of  
339 which have been Jewish people, sexuality minorities and gender minorities. Fully addressing  
340 such social exclusion is beyond the scope of this document, but the decentralized system  
341 should feature some protections against it and the system itself should not feature social  
342 exclusion capabilities, the likes of which are seen in the *Black Mirror* 2014 Christmas special  
343 *White Christmas* [26].

344 Rutger Bregman’s *Utopia for Realists* has a chapter *Why It Doesn’t Pay to Be a Banker*  
345 which [spoiler] compares a strike of bankers and bank employees in Ireland with a strike of  
346 sanitation workers in New York City. In 1968, the sanitation workers took the illegal option  
347 of striking, resulting – in a matter of six days – in a declaration of a state of emergency and  
348 – in a matter of nine days – in the sanitation workers getting their way. The bank employee  
349 strike of 1970 lasted six months, and the Central Bank of Ireland concluded that “The Irish  
350 economy continued to function for a reasonably long period of time with its main clearing  
351 banks closed for business” and, indeed, the economy grew. During this strike, Irish people  
352 continued writing cheques, effectively printing their own cash, with the only difference in  
353 the character of the cheques being that they couldn’t be cashed at banks. Instead, dealers  
354 such as publicans could act as verifiers of trust and could accept the cheques. It was a  
355 decentralized monetary system and it seems to have worked because of social cohesion. I  
356 myself recall that this sort of fractional reserve banking certainly did not stop after this strike  
357 and was implemented in my home town of Longford via Doyle’s pub, seen in Figure 3.3.



Figure 3.3: Doyle's pub [27]

358 Bregman suggests that the fact that the Irish people implemented this decentralized banking  
359 makes it clear that the society needed some form of financial sector.

360 It is beyond the scope of this document to describe and evaluate past implementations of  
361 basic income and past implementations of anarchism, but the book *Utopia for Realists* gives  
362 the former and histories of the Spanish anarchists, the peak implementation of modern an-  
363 archism, give the latter. However, I can mention that the slogan of the CNT/FAI anarchists  
364 was “Ni dios, ni estado, ni patrón” [No god, no state, no boss], widespread by the Spanish  
365 anarchists since 1910.



366

I had dropped more or less by chance into the only community of any size in Western Europe where political consciousness and disbelief in capitalism were more normal than their opposites. Up here in Aragon one was among tens of thousands of people, mainly though not entirely of working-class origin, all living at the same level and mingling on terms of equality. In theory it was perfect equality, and even in practice it was not far from it. There is a sense in which it would be true to say that one was experiencing a foretaste of Socialism, by which I mean that the prevailing mental atmosphere was that of Socialism. Many of the normal motives of civilized life—snobbishness, money-grubbing, fear of the boss, *etc.* — had simply ceased to exist. The ordinary class-division of society had disappeared to an extent that is almost unthinkable in the money-tainted air of England; there was no one there except the peasants and ourselves, and no one owned anyone else as his master.

---

George Orwell, *Homage to Catalonia*

367 As summarized in the documentary about Rojava *Accidental Anarchist*, contemporary move-  
368 ments such as Occupy Wallstreet, Occupy Sandy and, more recently, Extinction Rebellion  
369 are collectives of direct democracy, mutual aid and, arguably, socialist forms of anarchy.

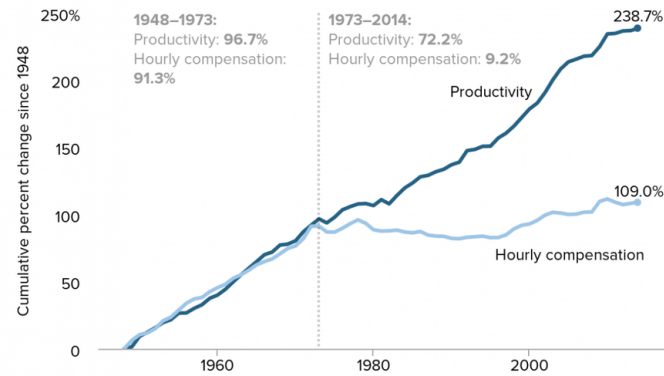
370

The opposite of government-imposed order is not chaos: there's a deeper order concealed within human society which relies not upon coercion but cooperation and trust, built not by governments or politicians, but by people who realise at last their own true power.

---

Carne Ross, *Accidental Anarchist* [28]

### Disconnect between productivity and a typical worker's compensation, 1948–2014



**Note:** Data are for average hourly compensation of production/nonsupervisory workers in the private sector and net productivity of the total economy. "Net productivity" is the growth of output of goods and services minus depreciation per hour worked.

**Source:** EPI analysis of data from the BEA and BLS (see technical appendix for more detailed information)

Economic Policy Institute

Figure 3.4

371 With technological, educational, and medical improvements, productivity has increased mas-  
 372 sively over at least the last century, however, compensation has not been increasing to match  
 373 it, as shown in Figure 3.4. This is plausibly something of a result of a fundamental problem  
 374 described by Marx: ownership of the means of production, and likely many other sneaky  
 375 methods besides. While taxation of automation is one approach to address this disparity,  
 376 decentralized ownership of the means of production, perhaps by means of decentralized  
 377 income and wealth redistribution, and it is an approach that does not (at least at face  
 378 evaluations) require much battle with existing power structures.

379 In all of the unconditional universal income guarantee experiments (run everywhere from  
 380 New Jersey to Pennsylvania to Iowa to North Carolina to Indiana to Seattle to Denver  
 381 to Finland, Mincome in Manitoba, as well as some smaller ones in Africa) the approach  
 382 improved health and education, boosted the economy, and ended poverty. Apart from  
 383 new mothers, people didn't tend to work less when they received this income. In fact,  
 384 particularly as seen in the African unconditional universal income guarantee experiments,

385 having a reliable income enabled people to have more free time to educate themselves so  
386 that they could advance to a new form of work, perhaps more enjoyable or meaningful, or  
387 to start businesses or generally to take more risks. Even the likes of Nixon and Rumsfeld  
388 were pretty much convinced by it [29]. *Utopia for Realists* by Rutger Bregman presents a  
389 referenced analysis of the idea as it has been implemented through history.

390 While climate emergency and denial of fundamental needs are powerful justifications for  
391 efforts on caring methods to undermine capitalism, there is another concern: Yuval Noah  
392 Harari emphasized the urgency of building decentralized information processing systems  
393 that are more efficient than fascist information processing systems in the 2018 TED talk  
394 *Why fascism is so tempting – and how your data could power it* [30].

We are witnessing the gradual disappearance of the postwar British  
welfare state behind a webpage and an algorithm. In its place, a  
395 digital welfare state is emerging. The impact on the human rights of  
the most vulnerable in the UK will be immense.

---

Philip Alston, 2018 [5]

### 396 **3.3 Decentralized unconditional universal income guar-** 397 **antee system**

A hundred times every day I remind myself that my inner and outer  
life are based on the labors of other men, living and dead, and that I  
398 must exert myself in order to give in the same measure as I have  
received and am still receiving...

---

Einstein

399 It is possible that the emergence and rise to cultural prominence of cryptocurrency and  
400 networks of trust, which may be viewed as an extension of the free culture movement, offers  
401 a possibility of escape from the current systems of oppression and better ideas that it to  
402 improve the wellbeing of creatures of this world. A combined system of a social trust graph  
403 together with crypto verification is here referred to as a *crypto-trust* system.

404 Government, politics and monetary systems all can be viewed as technologies. Viewed  
405 as such, societal problems are technological in origin. Most of the ideas in the current

406 monetary and political systems were designed centuries ago, and they feature limitations  
407 which suggest that the imaginations of their creators were limited by the comparatively  
408 primitive technology of their times. The limits of our language, so to speak, are the limits  
409 of our world.

410 The speed of light appears to be an important constraint of computational efficiency; a  
411 galaxy size computer would be slower than a microchip computer because of the distance over  
412 which computational elements must communicate. So, computational efficiency requires  
413 that we explore methods of decentralizing and distributing computations such that as much  
414 local computation as possible is accomplished. A decentralized or distributed system for  
415 monetary and welfare and history policies is needed for computational efficiency and will  
416 become more necessary as we expand throughout the cosmos.

417 Algorithms like Bellman-Ford can be used to determine arbitrage paths and flows of value  
418 between people, business, countries, city states and other entities. This, together with other  
419 considerations such as the number of users to which income is due, might be used by an  
420 automated decentralized unconditional universal income guarantee system to determine the  
421 income amount attributed to users per unit time, and might be used for funding and bailout  
422 calculations in order to improve economies.

423 An attempt has been Grantcoin, now called Manna [31]. Manna is administered by a  
424 US non-profit organization. While perhaps well-intentioned and inherently against borders  
425 (due to its use of a decentralized blockchain), Manna features a number of flaws, one of  
426 which is the organization acting as a gatekeeper, another being the organization acting as  
427 a centralized control over the monetary policy, and another being the possibility to invest  
428 in the currency. It intends to model itself on the Alaska Permanent Fund, which is a form  
429 of income paid to all Alaskans which arises from profits from a capital reserve fund. Its  
430 emphasis is more on altruism and charity than on rights. Fundamental rights shouldn't be  
431 subject to the whims of charity – that's why they're called rights. So, I view the emphasis of  
432 the Manna approach as fundamentally flawed. However, the opening of the Manna mission  
433 statement is perhaps worth repeating:

We, the people of the world, recognize and declare that money is a social invention which can be changed by the people according to our values. As we witness the growing scourge of inequality and its consequences, we see that the existing system is unjust and unsustainable. Recognizing and accepting the moral obligation that arises from such knowledge, we stand united in the decision to create a better alternative: a currency of conscience designed to facilitate the emergence of a more just and sustainable global economic system.

---

*Money By the People, For the People: The Manna Vision and Mission* [32]

A decentralized unconditional universal income guarantee system might be defined by the following ideas:

- Blockchain is used to ensure the integrity of the currency (well, currencies) via distributed consensus, in the manner of Bitcoin and Ethereum.
- A social trust graph is used to attempt to ensure that there is a one-to-one relationship between a user and a wallet, in other words a defence against Sybil attack. This can be supplemented by gatekeepers of various forms.
- An income rate definition or inflation/deflation algorithm, a basic version of which sets the income rate in proportion to the number of users in the system.

### 3.3.1 Blockchain

Blockchain is a reusable proof-of-work (effort/energy/work-based) approach to decentralized/distributed ensurance of integrity of a record. Similar approaches that are energy-efficient are under exploration currently.

The decentralized unconditional universal income guarantee system features individualized colored cryptocurrencies [33], with a specific color of currency corresponding to a proported user, which is defined when the user joins the system. The user receives income in the form of their colored currency over time, at a variable open source rate, which might be calculated by reference to the number of users in the system and by reference to more complicated

453 ideas, such as open source economic analyses to lower the time it might take to reach societal  
454 economic prosperity or wellbeing more generally.

455 The Austrian school of economics, which arguably features shortcomings like pure logical de-  
456 duction and a lack of scientific rigor, underlies the design of Bitcoin, with Bitcoin resembling  
457 gold.

### 458 3.3.2 Decentralized/distributed social trust graph as Sybil defense

459 The social network Facebook has a security facility that enables a user to nominate a number  
460 of friends to vouch for them when they lose access to their account, as shown in Figure 3.5.  
461 This vote of confidence is a network of trust.

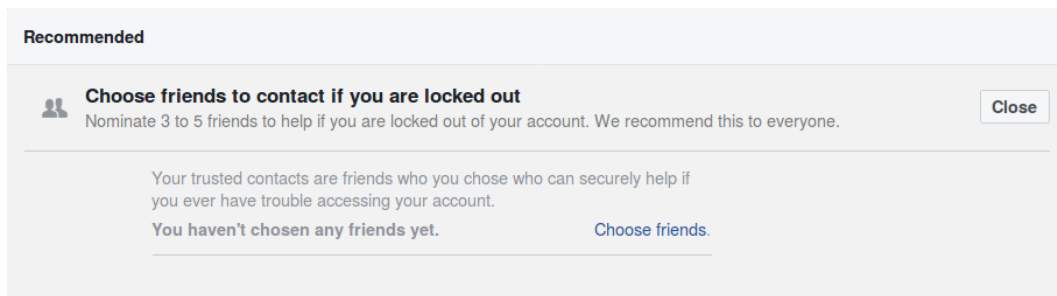


Figure 3.5: Facebook trust network

462 Graph-based Sybil defences can use social network graph properties to distinguish Sybil  
463 users from legitimate users. Some assumptions in a Sybil defense strategy could be that the  
464 legitimate social network graph features fewer edges between user vertices than the Sybil  
465 social network graph and that a Sybil user cannot produce meaningful interactions in the  
466 legitimate social network graph, even if it may infiltrate it. Other strategies have been  
467 considered [34].

468 In this proposed social trust graph Sybil defense, in a sense, a social contract is being  
469 created wherein a user receives money unconditionally to engage with their community. It  
470 is hoped that the social trust graph will be secured fundamentally by a careful population  
471 and population scale ideas like “six degrees of separation” [35], with analyses and gatekeepers  
472 as supplementary protections. New users are given a currency that is worthless by default

473 and they must take steps to increase its value. These social steps are the formal barrier to  
474 participation.

475 The canton of Zug is a region of Switzerland that has a low tax rate and a startup culture.  
476 In 2017 Zug started to use uPort [36] for its Zug ID [37]. uPort is decentralized by storing  
477 identity data on IPFS and by using the Ethereum blockchain, but the Zug ID involves  
478 centralized gatekeeping by in-person verification by a city administrator. It was scheduled  
479 to be used to test non-binding voting in 2018. This Sybil defense could be used but only as  
480 a supplement to decentralized/distributed Sybil defences. This is because such a centralized  
481 gatekeeper could make people beholden to it. Consider a bad, authoritarian government  
482 implementing income using a gatekeeper. It could wait until people are familiar with this  
483 form of income and dependent on it, and then could start making demands on people to  
484 comply with it in order to keep receiving the income. Defences against such authoritarian  
485 control must be present in the system. The idea of a basic income arises from rights, not  
486 from a gatekeeper, whether that gatekeeper be a government office or a charity.

487 Gatekeepers *are* permitted in the system – one could imagine businesses, governments,  
488 social groups, living groups *etc.* having specific validation requirements or other logics to  
489 determine group membership. This would be a level of validation above the basic validation  
490 provided by the social trust graph, a level of validation which must be reasonably achievable  
491 by all users.

492 In this proposed decentralized unconditional universal income guarantee system, users have  
493 the ability to trust the personal currencies of other users, which requires them to treat this  
494 personal currency identically to any other currencies that they trust. As the social trust  
495 graph becomes more interconnected, it is hoped that these personal currencies converge  
496 on a single universal monetary system. All users receive income at the same open source  
497 calculated rate, meaning that new money is distributed equally to all users at all times.  
498 This income generation is the only way new money is created.

499 Strangers wanting to exchange money automatically search for a transitive chain of trusted  
500 currencies between each other. The payer trades along this chain of trusted currencies, one  
501 after the other, until they have one that the recipient needs. Such exchanges working in  
502 practice require a reasonable number of users in the system. Up to that point, the system is

503 little more than passing IOUs between trusted users. Something like this routing capability  
504 exists in the form of the Bitcoin Lightning network.

### 505 3.3.3 Demurrage, inflation and deflation

506 Demurrage, or negative interest, is the cost associated with holding a store of value over  
507 a time [38]. For commodities such gold, demurrage is the cost of storing and securing it.  
508 For currency, it can take the form of a periodic tax, such as stamp tax, on currency hold-  
509 ings. The goal of demurrage currency is to ensure that cash is *cash flow safe*, wherein  
510 money is sure to return into the cash flow and this is accomplished not through inflation  
511 or deflation (though these are not excluded from the currency) but through periodic scrip  
512 payment to ensure that the money remains valid. The idea was suggested by Silvio Gesell,  
513 a German theoretical economist and anarchist libertarian socialist, as a way to undermine  
514 the privileged position held by currency compared with capital goods and to undermine  
515 entrenchment of the financial elite [39]. The concept has been tested in the Bavarian cur-  
516 rency *Chiemgauer* which requires an effective payment of 2 % of the value of a currency  
517 note every three months in order to maintain the validity of an individual bill in order to  
518 undermine hoarding and also has been tested in the short-lived local Schilling currency of  
519 the city of Wörgl, which appears to have protected the city from the economic depression  
520 in Germany of the 1930s [40, 41]. The Swiss WIR Frank (Wirtschaftsring-Genossenschaft  
521 [economic circle cooperative]) initially also featured ideas from Gesell [42]. A cryptocur-  
522 rency that implements a form of demurrage is Freicoin, though Freicoin has the demurrage  
523 fee paid to the developers as opposed to all other users [43]. The Freicoin documentation  
524 suggests that Freicoin is an implementation of Bitcoin which loses approximately 5 % of its  
525 value per year, with destroyed money taken out of circulation and minted coins created and  
526 distributed to miners, with the intention that the real capital required to secure the network  
527 is comparable to the payments of newly minted coins.

528 Keynes considered demurrage currencies and concluded that having currencies experience a  
529 reasonable rate of inflation is preferable, and has the same effect of promoting investment  
530 and spending [44].

531 Inflation is used to disincentivize hoarding and to encourage economic activity. In a basic



532 inflation scheme, all user currencies issue progressively larger amounts of income per unit  
533 time, and this includes new users (ensuring that some mitigation of the Monopoly problem  
534 is built into the system – new players have a fair chance in the game).

### 535 3.3.4 Existence in tandem with other currencies

536 In the case of the *Chiemgauer*, there are different rules for nonprofits and businesses. Non-  
537 profits are incentivized to purchase Chiemgauer by adding 3 % to the value on converting  
538 from Euros to Chiemgauer and businesses are incentivized to stay in the Chiemgauer system  
539 by taking a 5 % commission from the value on converting from Chiemgauer to Euros.

### 540 3.3.5 Exchange rates

541 The default system enforces a one-to-one exchange rate between all personal currencies, but  
542 less trusted users have currencies that are less valuable than established user currencies.  
543 This might be addressed by empowering users to limit the amounts they are willing to  
544 accept from other users. Such an approach could cautiously be suggested as a way for some  
545 majority of the population (perhaps as defined democratically in code) to limit the economic  
546 power of certain powerful people. Investigations resulting in the Panama Papers and the  
547 Paradise Papers tell us of wealthy people of the world (often people who have that wealth  
548 through little expended time or effort, sometimes called inheritance or siphoning) that are  
549 part of an enormous criminal conspiracy to dodge taxes and to hoard wealth in offshore  
550 accounts, yet such conspiracies are resilient to traditional economic and legal mitigations.  
551 A global, decentralized monetary policy might offer a mitigation to these methods that is  
552 not currently offered by existing systems of law and economics.

553 Methods of preventing bad mob rule (e.g. a population generally distrusting and discon-  
554 necting from a user for reasons other than trustworthiness) should be considered. Perhaps  
555 there is a gatekeeper that represents rights (as opposed to tyranny of the majority) that  
556 can enforce verification of users or anonymisation of a user personal currency, though there  
557 should not be a gatekeeper that can exclude a user from the decentralized unconditional  
558 universal income guarantee.

### 559 **3.3.6 National credit**

560 This could be a part of the system that stores a small amount when it has beyond the  
561 resources needed to pay all guaranteed incomes. This amount is used to ensure guaranteed  
562 incomes when there are economic downturns. Could the system feature the ability to loan  
563 to itself in certain circumstances? This would be decided by economists.

### 564 **3.3.7 Revolution**

565 The system should be reliable and resilient. Bitcoin and Ethereum have been subject to  
566 intense hacking attempts and scrutiny so these should likely feature as the codebase, with  
567 Ethereum being the more likely candidate because it is more easily programmable.

568 How can the proposed system draw power from the existing systems? A group of people  
569 could agree to trial the system. The group will likely feature a mix of incomes and none. In  
570 participating, one approach could be for participants to give some fraction of their income  
571 to the system. The group should be designed such that the combined income divided  
572 equally between all participants is sufficient for a income, perhaps of median value, for all  
573 participants.

574 On a larger scale, the enticement of the ‘free’ currency accessible to people for a one-time  
575 small degree of effort (comprising solely of installation of a program) could be enough. To  
576 use the currency there is then the effort of building a few social connections/verifications.  
577 Outreach in order to educate about the system would be straightforward. Perhaps people  
578 like Ash Sarkar and Owen Jones could be helpful at popularisation. The International  
579 Consortium of Investigative Journalists (ICIJ) – of Panama Papers fame – could be skilled  
580 at spotting shortcomings and strategies to counter the flows of secrecy used by the powerful.  
581 A contact for political association could be Michael Tubbs (SEED). Contacts for technical  
582 evaluation could be Stacia West (SEED) and Amy Castro Baker (SEED).

583 One noteworthy point raised in documentation on the Stockton Economic Empowerment  
584 Demonstration (SEED) [23] is that a declared income, such as a guaranteed income, could  
585 impact existing social welfare payments because these often are means-tested. Secrecy or at  
586 least legal waivers would be needed to address this system if the groups implementing the

587 system were not able to have the guaranteed income at a basic income level. Happily tech-  
588 nologies for financial privacy exist in the forms of Zcash and Monero and perhaps Ethereum  
589 and private social trust authentication is intended as a totally separate system which is  
590 merely used by the cryptocurrency system for authentication.

591 Cryptocurrencies tied to the value of traditional fiat currencies such as the Euro may be  
592 of assistance at the boundaries between the system proposed here and the existing capital-  
593 ist world, perhaps by providing a means of uneasily-censorable use of the traditional fiat  
594 currency. One suggestion is the stablecoin xEURO [45].

595 Publically demolishing the arguments of the protectors of the wealthy could involve empha-  
596 sis such as that used by MLK on consumerism: *“We must create full employment or we*  
597 *must create incomes. People must be made consumers by one method or the other”* [14]. I  
598 suggest, having seen video of people employed to cut grass using scissors in the Democratic  
599 People’s Republic of Korea and having heard reports from my parents of USSR Moscow  
600 toilet attendants (one employed to greet, one to open the cubicle door, one to hand the  
601 single pieces of toilet tissue and so on) that the latter must be the emphasis.

602 GEORGE:

603 You know, this used to be a hell of a good country. I can't understand what's gone wrong with  
604 it.

605 BILLY:

606 Man, everybody got chicken, that's what happened. Hey, we can't even get into a, like, a second-rate  
607 hotel. I mean, a second-rate motel, you dig? They think we're gonna cut their throat or somethin',  
608 man. They're scared, man.

609 GEORGE:

610 Oh they're not scared of you. They scared of what you represent to 'em.

611 BILLY:

612 Hey man, all we represent to them, man, is somebody who needs a haircut.

613 GEORGE:

614 Oh, no. What you represent to them is freedom.

615 BILLY:

616 What the hell's wrong with freedom, man? That's what it's all about.

617 GEORGE:

618 Oh yeah, that's right. That's what it's all about, alright. But talking about it and being it...  
619 that's two different things. I mean it's real hard to be free when you are bought and sold in  
620 the marketplace.

621 'Course, don't ever tell anybody that they're not free, 'cause they gonna get real busy killin'  
622 and maimin' to prove to you that they are. Oh yeah, they gonna talk to you and talk to you and  
623 talk to you about individual freedom -- but they see a free individual, it's gonna scare 'em.

624 BILLY:

625 Yeah well it don't make them runnin' scared.

626 GEORGE:

627 No. It makes 'em dangerous.

628

---

Conversation between alcoholic ACLU lawyer George Hanson,  
played by Jack Nicholson, and drug-running biker Billy, played by  
Dennis Hopper, in the film *Easy Rider* (1969)

629

I believe we oughta to do all we can, and seek to lift ourselves by our own bootstraps but it's a jest to say to a bootless man that he oughta lift himself by his own bootstraps.

---

Martin Luther King, Jr.

630

### 3.4 Monetary policies with guaranteed income

631 A 2017 paper [46] emerged from the *New England Complex Systems Institute*, which was  
632 founded by theoretical physicist Yaneer Bar-Yam, who is known for having predicted aspects  
633 of the Arab Spring by using the observation that violence and riots occur at peaks of the  
634 global food price index. The paper describes a capitalist economic system featuring two  
635 main cycles that are balanced against one another, one for wages and consumption (the  
636 labor cycle), and one for investment and returns (the capital cycle), while treating the role  
637 of banks and government as providing monetary injections into those cycles.

638 The first cycle is that of workers receiving income and consuming goods and services. The  
639 second cycle is that of the wealthy investing in production and receiving returns on their  
640 investments. For growth to happen in this capitalist system, the two must be in a certain  
641 balance. If there is too much money in the worker cycle then there are not enough things  
642 to purchase. If there is too much money in the investment cycle then consumers don't  
643 have enough money to buy things so investment doesn't happen. The paper suggests that  
644 prior to 1980 there was too much money in the worker/consumer cycle, with money chasing  
645 too few products, giving rise to inflation. After 1980, the balance changed the other way,  
646 likely due to the Reganomics tax changes. There was too much money in the investor cycle  
647 and the result has been a series of recessions, perhaps mitigated by the likes of the Federal  
648 Reserve intervening by lowering interest rates in order to increase borrowing ability, in order  
649 to increase consumption – while income continued to be too low.

650 The paper suggested that the way government is regulating the economy is analogous to  
651 driving a car using only the accelerator and without using the steering wheel, where steering  
652 corresponds to keeping the balance between the two cycles in some good proportion. While  
653 Federal Reserve interventions may have helped overcome the recessions, today we are up  
654 against the roadside guard rail and need to rebalance the economy by shifting money back

655 to the worker/consumer cycle.

656 The paper suggests that current approaches to correcting economic problems by reducing  
657 government spending (austerity), while decreasing taxes for the wealthy in order to promote  
658 investment, are wrong. They may have been somewhat helpful in 1980 but they are long  
659 outdated today. Economic inequality is not simply a social justice problem, but also an  
660 economic problem. Fixing economic inequality will have dramatic benefits for economic  
661 growth.

662 The analysis suggested that the current USA regulation of economic activity that focuses on  
663 monetary policy has missed the problem of regulating the relative strength of flows in the  
664 two cycles. Simply, the presence of two flows and one control variable cannot be expected  
665 on general principle to function well.

666 The paper recommends a shift towards policies that inject money into the wages and con-  
667 sumption cycle in order to increase economic growth. The authors note that this is the  
668 same recommendation that would arise from considering the problem of income inequal-  
669 ity. So, the research supports advocates of greater income and/or government support for  
670 the poor, who use a larger fraction of income for consumption. Even within this capitalist  
671 thinking, the conclusion is that wages must be increased in order to create more investment  
672 opportunities for the wealthy, thus advancing to a stronger economy.

673 The paper acknowledges the notable contributions of the Federal Reserve as a mitigating  
674 and stabilizing influence, but notes that its abilities have reached their limits, because  
675 the effectiveness of using monetary policy in and of itself as a mechanism of regulation of  
676 economic growth has reached its limits. The paper goes on to predict another recession  
677 on the time scale of a few years. It concludes that a new policy that redirects money for  
678 consumption is needed to increase economic activity: “Traditional wealth redistribution  
679 appears to be essential for renewed economic growth”.

680 Most people are workers, not investors. Since more workers are impacted when there are  
681 problems with the economic systems at play, at the very least, workers should have control  
682 over this balance. If workers and investors are the same thing you have a form of Marxism.

683 The system proposed here enables a rebalancing of these cycles by guaranteed income and

684 also enables members of the system to demonetize the investor class by reducing the weight-  
685 ing that is the exchange rate accepted for the currencies of members of the existing investor  
686 class.

## Chapter 4

### Other uses

#### 4.1 Reparations, debt forgiveness and wealth redistribution

Large groups within social trust networks could conclude that they are due reparations and the system could feature some reweighting of all currencies in the system such that a large group that is due reparations is granted the reparations in the form of, say, preferential exchange rates. An ideal example would be an attempt to bring people today to the economic state they would have been at were slavery not to have happened. Conversely, large groups within social trust networks could mitigate or cancel debt of others if the debt is deemed unfair.





Figure 4.1

698 Economic models acknowledge the relationship between labor income and wealth inequality,  
699 and also conclude that a redistributive tax (of the form of a Robin Hood tax) is successful  
700 at reducing income inequality [47].

701 At smaller scales than large, perhaps country-level, reparations and debt forgiveness, other  
702 debts and expenses could be mitigated. For example, in the time before landlords are  
703 abolished, the exchange rates of landlords could be defined by society to be of a worth that  
704 means that any rents they have received are immediately redistributed back to the renter.

## 705 4.2 Direct democracy

706 Switzerland is a country with one of the more direct democracies. A crypto-trust system  
707 could make the running of direct democracy, popular initiatives, voting, power of recall, and  
708 so on much less laborious.

### **4.3 Surveillance and privacy, and proletariat control over the admissability of evidence into court**

Soussurveillance is personal surveillance, for example by way of a camera worn by a person. Inverse surveillance is a subset of soursurveillance and is surveillance of surveillance, usually surveillance of the surveillance activities or technologies of an authority. Soussurveillance or other small-scale surveillance systems could record to encrypted databases which are decryptable using only crypto-trust systems. For example, courts could be limited from permitting surveillance recordings to be admitted as evidence unless they have been decrypted by a majority of people in a crypto-trust system.

### **4.4 Credit**

Smart contracts, similar to the form seen in Ether, implemented in the crypto-trust system could be used to implement forms of mutual credit bank, an interest-free loan system with credit provided voluntarily by users of the crypto-trust system.

### **4.5 Similar, good ideas that may not be implementable using the proposed system**

While private decentralized organisations of humans and private decentralized contracts systems have been implemented to some degrees, this may be beyond the capabilities of the system proposed here. For privacy, say in purchasing delicious 1P-LSD, systems like Zcash and Monero have more developed methods of privacy than Bitcoin.

## 728 4.6 Fair use of resources intended for people as opposed 729 to bots

730 There is a contemporary problem with dark net markets running on Tor in the form of an  
731 ongoing distributed denial-of-service attack A network of social trust could identify the user  
732 of a resource as an authentic person, while maintaining anonymity, such that the resources  
733 are provided with priority given to people.

## 734 Chapter 5

# 735 Dangers

### 736 5.1 Borders

737 Everyone has the UDHR Article 13(2) right to leave any country and the complimentary  
738 right to free migration. In *Utopia for Realists*, Rutger Bregman argues that country borders  
739 (which have been enforced largely only since WWI, when border enforcement was introduced  
740 as a war-time emergency measure) are the greatest form of unfair discrimination today.  
741 For the case of the European migrant crisis of 2015, a protection against the tyranny of  
742 the majority that was the opposition to, and oppression of, migrants, another protection is  
743 open borders.

### 744 5.2 Tyranny of the majority

745 The framers of the United States Constitution did not envisage direct democracy because  
746 they expressed that they saw a danger in the tyranny of the majority. A direct democracy,  
747 monetary policy, unconditional universal income guarantee and so on implemented using a  
748 crypto-trust system must have protections against tyranny of the majority. One protection  
749 for this is a population educated on oppression such that it is less likely to oppress. Another  
750 protection is representatives that are subject to the intense scrutiny of anarchy.

### 751 5.3 Transparency

752 Ivan Krastev said in his talk *Can democracy exist without trust?* [48] that there are un-  
753 intended consequences associated with transparency in government systems that feature  
754 humans, that transparency can be used as a way to silence humans in government. While  
755 the proposed system should plausibly not intrude on this (particularly given such economic  
756 privacy techniques as Zcash), it might have some unintended consequences relating to this.

### 757 5.4 Privacy

758 As mentioned in reference to the Stockton Economic Empowerment Demonstration (SEED)  
759 and things like rights to drugs currently called illegal, personal privacy – that’s privacy as  
760 recognised by the likes of the UDHR Article 12 – can be extremely important. Possible  
761 supported decentralized systems could be used to demonetize despised minorities, such as  
762 LGBT+ people or refugees, or individuals, so it is important to emphasize again that the  
763 social trust authentication system is intended as a totally separate system which is merely  
764 used by the cryptocurrency system for authentication. Technologies exist for decentralized  
765 financial openness, such as Bitcoin, but, as mentioned, it should be emphasized that tech-  
766 nologies exist for financial privacy in the forms of Zcash and Monero and perhaps Ethereum,  
767 while at the same time enabling decentralized monetary policy, including such ideas as con-  
768 tinuous guaranteed median income and regular wealth redistribution of such a form that  
769 makes a positive contribution to reality. And, of course, there can be continued development  
770 of research into unjust wealth and income secrecy, as we have seen with the Panama Papers  
771 ongoing research by the International Consortium of Investigative Journalists (ICIJ).

### 772 5.5 Unintended consequences

773 Copyright was defined originally in the USA in the context of improving society; it was  
774 categorically not a recognition of some form of right to censor ideas. It was designed to  
775 mitigate the bad effects of individuals and groups keeping innovative ideas secret. While

776 perhaps this was laudable, the system has become subject to mass manipulation enabled by  
777 monetary power and technologies such as *Content ID* [49].

778 An unconditional universal income guarantee is direct and promising but potentially as  
779 complex in implementation as the current social welfare systems. A naïve approach would  
780 set an income amount in stone at the lowest levels of income and would have the consequence  
781 of perpetuating poverty; the dynamic approach of changing the amount to match the median  
782 income is more promising. However, any of the ideas of this proposal could have many  
783 unintended consequences. They should be modified or supplanted as is reasonable.

784 The curse of poverty has no justification in our age. It is socially as  
cruel and blind as the practice of cannibalism at the dawn of  
civilization, when men ate each other because they had not yet  
learned to take food from the soil or to consume the abundant  
animal life around them. The time has come for us to civilize  
ourselves by the total, direct and immediate abolition of poverty.

---

Martin Luther King, Jr.,

*Where Do We Go from Here: Chaos or Community* (1967) [14]

## References

- [1] D. Lam, *How the World Survived the Population Bomb: Lessons From 50 Years of Extraordinary Demographic History*, *Demography*, 48 (4), 1231–1262 (November 2011), doi:10.1007/s13524-011-0070-z, URL <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3777609/pdf/nihms335409.pdf>
- [2] United Nations, *Universal Declaration of Human Rights*, URL <https://www.un.org/en/universal-declaration-human-rights>
- [3] S. Kirchgaessner, *Theft of sausage and cheese by hungry homeless man ‘not a crime’*, *The Guardian* (May 2016), URL <https://www.theguardian.com/world/2016/may/03/theft-sausage-cheese-hungry-homeless-man-not-crime-italy>
- [4] M. Gramellini, *Il diritto di avere fame*, *La Stampa* (May 2016), URL <https://www.lastampa.it/2016/05/03/cultura/opinioni/buongiorno/il-diritto-di-avere-fame-rNMKcewcPiKTU9FvY7C0nK/pagina.html>
- [5] P. Alston, *Statement on Visit to the United Kingdom, by Professor Philip Alston, United Nations Special Rapporteur on extreme poverty and human rights* (November 2018), URL [https://www.ohchr.org/Documents/Issues/Poverty/EOM\\_GB\\_16Nov2018.pdf](https://www.ohchr.org/Documents/Issues/Poverty/EOM_GB_16Nov2018.pdf)
- [6] Philosophy Tube, *Intro to Anarchy: Power & Violence* (January 2012), URL <https://www.youtube.com/watch?v=bCAUmh99hMI>
- [7] N. Chomsky, *On Anarchism* (2013)
- [8] Noam Chomsky, *Chomsky explaining real anarchism*, URL <https://www.youtube.com/watch?v=AkvPDx2qNjM&t=11m24s>

- 806 [9] J. Burke, *Worlds Without End: Changing Knowledge, Changing Reality*, The Day  
807 the Universe Changed (May 1985), URL [https://www.youtube.com/watch?v=mB8\\_wPei2ZM](https://www.youtube.com/watch?v=mB8_wPei2ZM)  
808
- 809 [10] *Climate Change: A Cross-Party Consensus for Action*, URL  
810 [https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/  
811 joint\\_committee\\_on\\_climate\\_action/reports/2019/2019-03-28\\_  
812 report-climate-change-a-cross-party-consensus-for-action\\_en.pdf](https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/joint_committee_on_climate_action/reports/2019/2019-03-28_report-climate-change-a-cross-party-consensus-for-action_en.pdf)
- 813 [11] R. Bregman, World Economic Forum (January 2019), URL [https://www.youtube.  
814 com/watch?v=r5LtFnmPruU&t=14m40s](https://www.youtube.com/watch?v=r5LtFnmPruU&t=14m40s)
- 815 [12] Wretched of The Earth, *An open letter to Extinction Rebellion* (May 2019), URL  
816 <https://www.redpepper.org.uk/an-open-letter-to-extinction-rebellion>
- 817 [13] N. Wynn, XOXO Festival (November 2018), URL [https://www.youtube.com/watch?  
818 v=0Ix9jxid2YU&t=3m10s](https://www.youtube.com/watch?v=0Ix9jxid2YU&t=3m10s)
- 819 [14] M. L. King, Jr., *Where Do We Go from Here: Chaos or Community* (1967)
- 820 [15] S. Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (October 2008), URL  
821 <https://bitcoin.org/bitcoin.pdf>
- 822 [16] S. Nakamoto, *The Times 03/Jan/2009 Chancellor on brink of second bailout for banks.*  
823 (January 2009), URL [https://en.bitcoin.it/wiki/Genesis\\_block](https://en.bitcoin.it/wiki/Genesis_block)
- 824 [17] *Introducing Memo* (April 2018), URL <https://memo.cash/introducing-memo>
- 825 [18] *Satoshi Proof*, URL <https://github.com/ligi/SatoshiProof>
- 826 [19] M. Abidor, *Death to Bourgeois Society: The Propagandists of the Deed* (2016)
- 827 [20] S. Santens, *Deep Learning Is Going to Teach Us All the Lesson of Our Lives:  
828 Jobs Are for Machines* (March 2016), URL [https://medium.com/basic-income/  
829 deep-learning-is-going-to-teach-us-all-the-lesson-of-our-lives-jobs-are-for-machines-7c64](https://medium.com/basic-income/deep-learning-is-going-to-teach-us-all-the-lesson-of-our-lives-jobs-are-for-machines-7c64)
- 830 [21] *Basic Income for All: From Desirability to Feasibility*, Compass (2019)
- 831 [22] The Collective Psychology Project (May 2019), URL [https://www.  
832 collectivepsychology.org/wp-content/uploads/2019/05/A-Larger-Us.pdf](https://www.collectivepsychology.org/wp-content/uploads/2019/05/A-Larger-Us.pdf)



- [23] S. Martin-West, A. C. Bake, S. Balakrishnan, K. Rao and G. Y. Tan, *Pre-Analysis Plan: Stockton Economic Empowerment Demonstration* (December 2018), URL [https://static1.squarespace.com/static/59d55793268b96ccff4ff70e/t/5c0eb980575d1fbc6d9996ed/1544468865166/SEED\\_PaP\\_V2+%281%29.pdf](https://static1.squarespace.com/static/59d55793268b96ccff4ff70e/t/5c0eb980575d1fbc6d9996ed/1544468865166/SEED_PaP_V2+%281%29.pdf)
- [24] I. Marinescu, *No Strings Attached: The Behavioral Effects of U.S. Unconditional Cash Transfer Programs* (May 2017), URL [http://www.marinescu.eu/Marinescu\\_UBI\\_review\\_2017.pdf](http://www.marinescu.eu/Marinescu_UBI_review_2017.pdf)
- [25] *Free Territory*, URL [https://en.wikipedia.org/wiki/Free\\_Territory#Criticism](https://en.wikipedia.org/wiki/Free_Territory#Criticism)
- [26] C. Brooker, *White Christmas*, Black Mirror (December 2016), URL <magnet:?xt=urn:btih:49f2d942c054cd5bbf932e1e921642eebe110bf7>
- [27] *Doyle's Bar and grocery* (September 2017), URL <https://www.facebook.com/Doyles-Bar-and-grocery-1060055107349764>
- [28] *Accidental Anarchist: Life Without Government* (2017), URL <https://www.youtube.com/watch?v=XudWK8ua2WA>
- [29] R. Bregman, *Nixon's Basic Income Plan* (May 2016), URL <https://www.jacobinmag.com/2016/05/richard-nixon-ubi-basic-income-welfare>
- [30] Y. N. Harari, *Why fascism is so tempting – and how your data could power it* (April 2018), URL [https://www.ted.com/talks/yuval\\_noah\\_harari\\_why\\_fascism\\_is\\_so\\_tempting\\_and\\_how\\_your\\_data\\_could\\_power\\_it](https://www.ted.com/talks/yuval_noah_harari_why_fascism_is_so_tempting_and_how_your_data_could_power_it)
- [31] *Manna Whitepaper* (2015), URL [https://drive.google.com/file/d/1uRTC\\_hjabk\\_Ps1C4qLyGDFV8yTHYLj3W/view](https://drive.google.com/file/d/1uRTC_hjabk_Ps1C4qLyGDFV8yTHYLj3W/view)
- [32] *Money By the People, For the People: The Manna Vision and Mission* (2015), URL <https://drive.google.com/file/d/1issWZCMhPJYFoOrABpCcSxkYfA3WPBaj/view>
- [33] *Colored Coins whitepaper*, URL [https://docs.google.com/document/d/1AnkP\\_cVZTCMLIzw4DvsW6M8Q2JC01IzrTLuoWu2z1BE](https://docs.google.com/document/d/1AnkP_cVZTCMLIzw4DvsW6M8Q2JC01IzrTLuoWu2z1BE)
- [34] M. Al-Qurishi, M. Al-Rakhami, A. Alamri, M. Alrubaian, S. M. M. Rahman and M. S. Hossain, *Sybil Defense Techniques in Online Social Networks: A Survey* (January 2017),

- doi:10.1109/ACCESS.2017.2656635, URL <https://ieeexplore.ieee.org/document/7828091>
- [35] *Six degrees of separation*, URL [https://en.wikipedia.org/wiki/Six\\_degrees\\_of\\_separation](https://en.wikipedia.org/wiki/Six_degrees_of_separation)
- [36] *uPort*, URL <https://www.uport.me>
- [37] D. Cummings, *uPort Announces Zug Digital Ethereum ID Pilot* (July 2017), URL <https://www.ethnews.com/uport-announces-zug-digital-ethereum-id-pilot>
- [38] *Demurrage (currency)*, URL [https://en.wikipedia.org/wiki/Demurrage\\_\(currency\)](https://en.wikipedia.org/wiki/Demurrage_(currency))
- [39] *Silvio Gesell*, URL [https://en.wikipedia.org/wiki/Silvio\\_Gesell](https://en.wikipedia.org/wiki/Silvio_Gesell)
- [40] *Chiemgauer*, URL <https://en.wikipedia.org/wiki/Chiemgauer>
- [41] *Wörgl*, URL [https://en.wikipedia.org/wiki/W%C3%B6rgl#The\\_W.C3.B6rgl\\_Experiment](https://en.wikipedia.org/wiki/W%C3%B6rgl#The_W.C3.B6rgl_Experiment)
- [42] *WIR Bank*, URL [https://en.wikipedia.org/wiki/WIR\\_Bank](https://en.wikipedia.org/wiki/WIR_Bank)
- [43] *Freicoin: a peer-to-peer digital currency delivering freedom from usury*, URL <http://freico.in>
- [44] J. M. Keynes, *The General Theory of Employment, Interest and Money* (1936), URL <https://www.marxists.org/reference/subject/economics/keynes/general-theory/ch23.htm#vi>
- [45] *xEURO: most transparent and legally compliant stablecoin automatically convertible to fiat* (2019), URL <https://xeuro.online>
- [46] Y. Bar-Yam, J. Langlois-Meurinne, M. Kawakatsu and R. Garcia, *Preliminary steps toward a universal economic dynamics for monetary and fiscal policy*, arXiv e-prints, arXiv:1710.06285 (October 2017), URL <https://arxiv.org/abs/1710.06285>
- [47] T. Fischer, *Can Redistribution by Means of a Progressive Labor Income-Taxation Transfer System Increase Financial Stability?*, Journal of Artificial Societies and So-

- 886 cial Simulation, 20 (2), 3 (2017 2017), ISSN 1460-7425, doi:10.18564/jasss.3405, URL  
887 <http://jasss.soc.surrey.ac.uk/20/2/3.html>
- 888 [48] I. Krastev, *Can democracy exist without trust?* (2012), URL [https://www.ted.com/](https://www.ted.com/talks/ivan_krastev_can_democracy_exist_without_trust)  
889 [talks/ivan\\_krastev\\_can\\_democracy\\_exist\\_without\\_trust](https://www.ted.com/talks/ivan_krastev_can_democracy_exist_without_trust)
- 890 [49] *Content ID (algorithm)*, URL [https://en.wikipedia.org/wiki/Content\\_ID\\_](https://en.wikipedia.org/wiki/Content_ID_(algorithm))  
891  [\(algorithm\)](https://en.wikipedia.org/wiki/Content_ID_(algorithm))