42. Hacking finance: experiments with algorithmic activism

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INTRODUCTION: A HACKING APPROACH

If finance feels like an opening, a possibility for most of us, it's probably doing the job it's supposed to do.
(Economic Space Agency)

Finance is a word for trouble. Activists often recognize its strategic and game-changing potential. Yet, control over finance often feels so out of reach. Exploitative and unsustainable financialization seems to continue relatively uncontested at large (e.g. Lapavitsas 2014). The increasing socialization of risks and spread of debt are leading characteristics of our financialized present (e.g. Bryan and Rafferty 2014; Coppock 2013). Unnegotiable debt inhibits our possibilities by organizing the present through foreclosing the future. Exhaustion is its phenomenological effect, as '[c]apital accumulates on the promise of a future that always threatens not to come' (Martin 2016, p. 178). As a global phenomenon operating on a scale of its own and through financial technologies of the most alienating and opaque kind, capitalist finance appears to be everywhere and nowhere at the same time. It determines but cannot be determined.

Many such representations of finance are, of course, also prime examples of a capitalocentric economic discourse (Gibson-Graham 2006a) insofar as they always already know capitalist finance to be *the* game in town. Moreover, this coalesces with an inability to take seriously the diverse economies and necessary ambiguities haunting seemingly homogeneous capitalist sites. Through a pedagogics of impossibility, capitalocentrism reproduces a 'scarcity of ways to enter the edifice of finance itself and explore what it might mean to reoccupy the scheme of credit and debt that it has produced' (Martin 2015, p. 222). It is, then, the task of this chapter to participate in upsetting this scarcity of imagination that so often seems to accompany the notion of 'finance' and render most of us disenfranchised.

I concentrate on modes of activist organization that reformat seeming 'heartlands' of financialized capitalism as their playground. For Gibson-Graham (2006a, p. 138), '[t]he financial sector can be seen . . . as an *opening* in the body of capitalism, one that not only allows capital to seep out but that enables noncapitalism to invade'. This is an inspiring vision, but it also warrants the hard work of 'reading for difference rather than dominance' (Gibson-Graham 2006b) in the very territories currently inhabited by seemingly monstrous and hyper-alienating forms of finance.

I am concerned here with a practice called *financial hacking*. Hacking means taking things apart and putting them together again in novel combinations to serve purposes not originally intended. I follow Brett Scott's (2013, p. 8) understanding of hacking as a practice that 'combines an act of rebellion with an act of creative re-wiring'. Although it is common to associate hacking with so-called high technologies, Scott sees a 'hacker ethos' as associated with diverse practices from parkour, which hacks movement in public space, to DIY electronics, and from slam poetry to capoeira as 'movement hacking' and to cross-dressers who 'hack gender codes' (Scott 2013, p. 9). To Scott, many hacker approaches combine elements of *exploring* systems and gaining access to them, *jamming* through seeking vulnerabilities and exposing them, and *building* by recombining elements to create something new.

Understood this way, hacking involves pedagogical, oppositional and reconstructive aspects. It is about learning the master's tools in order to use them against mastery, but also about negotiation with the precarious, exhilarating and ephemeral space that opens between what is given and what can become possible. This space is here illustrated with two examples. The first space is the Robin Hood Cooperative (RHC) which is an 'activist hedge fund' for 'minor asset management', established in Finland in 2012. The prime strategy of RHC has been to use an algorithmic tool to infiltrate and profit from the US stock exchange and to channel surpluses to cooperative members and to grassroots political and social projects. The second is the Economic Space Agency (ECSA) which is a start-up company that grew out of RHC and has its current headquarters in a garage in Oakland, California. ECSA concentrates on exploring and redesigning the newest technologies introduced by cryptocurrencies in order to reinvent economic space and organization.

What follows is not a technical summary, a detailed ethnography or a critical assessment of these projects' prospects. Instead, I hope to illustrate problematics that might be pertinent to the challenges and promises of hacking finance more broadly. I will first provide a short description of both organizations and then draw three initial lessons that have to do with ethics, technology and space. Hacking operations illustrate, I argue, opportunities for exploring and learning from the seeming limits of the possible. This is a risky business, as it involves reaching beyond the creation of local systems of desirable finance and assured tactics to draw from practices that are genuinely contentious.

REORGANIZING WITH ALGORITHMS

The activist organizations at stake here are outgrowths from artistic, organizational and theoretical experimentation in Finland. Their starting point is a drastic disillusionment with the present, in which people are increasingly tied to ubiquitous value-production (e.g. cognitive, affective and semiotic production that is irreducible to a clearly delineated space and time of 'work') while simultaneously being precariously remunerated and increasingly governed by constantly accumulating debt. As Akseli Virtanen, co-founder of RHC and ECSA, and current CEO of the latter, puts it: 'Robin Hood is an attempt to think about the possibility of cooperation where it seems that distrust, suspicion, and exploitation of others has become the most important means of our survival' (Piironen and Virtanen 2015, p. 100). Influenced by French post-structuralism and Italian post-operaismo or post-workerism, this strand of work seeks to understand and organize based on its analysis of changing value production in contemporary cognitive, affective or biopolitical capitalism (Virtanen 2006). According to this line of thinking, financialization has spread people into two categories: those who – through financial capital – have access to monetary income without the need for work, and those whose only entry point to money is through work and debt (i.e. the precariat). RHC and ECSA are shapeshifting explorations of how the latter group could use the former's tools and drastically change the power dynamics – and, indeed, its conditions of existence.

Since the early 2000s, finance researcher Sakari Virkki had been developing and testing an algorithm programmed to track and mimic the most successful investors in the US stock market. Virkki trained the programme – named *Parasite* – to replicate the moves of successful groups of investors, to follow them through highly complex data sets and to make investment suggestions based on this information (Virkki 2010, 2013). The idea is that investment decisions in a stock market do not necessarily follow any rational intentionality driven by the individual, but move largely through affective surges, like flocks of birds. These moves can, however, be discerned and replicated with clever enough algorithmic tools. In 2012, RHC was established as an organization to benefit from and further develop *Parasite*. Through investment suggestions based on tracking successful investors, the crux of the strategy was to 'tax' the surpluses of capitalist finance through replicating its moves for value production.

This parasitic strategy 'produced a bad copy of a model that overturned the grounds on which any distinction between copy and model could stand' (Robin Hood 2.0 2015, p. 2). RHC became a hedge fund, using algorithmic power to handle liquid assets and to leverage shifting and flocking moods within the stock market. It entered Wall Street to perform its action inside, folding this presumably ultra-capitalist site into contact with a non-capitalist practice. Through this performance, RHC became in a sense fully complicit with 'the system'. Yet, what distinguishes RHC from most other hedge funds is, first, its organizational form, namely a cooperative with a very low threshold for membership and a democratic decision-making structure, and, second, a political ethos explicitly geared to channelling profits to people and organizations typically barred off from such possibilities.

This algorithmic strategy proved successful for a couple of years. Money flowed into the cooperative, new members were acquired; the cooperative held mobile 'offices' around the globe to discuss and strategize, and the project's online discussion forum (http://discourse.robinhoodcoop.org) became attended by enthusiastic financial explorers. Although the assets under management of RHC remained small compared to conventional hedge funds, its fiscal success rate was remarkable. As *Huffington Post* wrote, '[i]f Virkki was managing the fund in the United States, it would have been ranked the third best-performing portfolio in the country in 2012' (Foy 2013). After the first years of testing the methods and concentrating on organizational development, in 2015 RHC arranged its first (and, so far, last) funding round for the 'irrigation of the commons', in which cooperative members were able to nominate projects for potential funding. The cooperative decided to fund a self-managed space in Rio Janeiro, a Commons Transition collaboration between the Catalan Integral Cooperative and the P2P Foundation, and a media project and community organizing against extractivist gold mining in Northern Greece (Troncoso 2015). Although the sums were still small (in the order of a few thousand euros per project), RHC had thus managed to induce its own logic of reaping surplus from Wall Street and channelling it to non-capitalist projects (in addition to cooperative members).

However successful at first, the hacking of financial algorithms began to show its limits in three years. The fiscal year of 2015–16 proved difficult for many hedge funds, and RHC was no exception. Due to complex issues affecting *Parasite*'s hunch, its performance faltered. This strengthened the interest within the cooperative to diversify investment strategies so as not only to rely on *Parasite*. Already before this faltering, in 2015, RHC had begun a project of reinventing itself as a version 2.0 (Robin Hood 2.0 2015). The strategy of being solely reliant on one algorithm was deemed too one-dimensional in the sense of not creating enough options for cooperative members, but also because of the modest amounts of surplus it had actually managed to produce, leaving the members with some money (i.e. something to pay your bills with) but not capital (i.e. power to self-determine futures). Also, crucially, the organizational limits, inflexibility and spatial restrictions of the cooperative model were foregrounded (Robin Hood 2.0 2015, p. 3).

Two new strategies were introduced. First, the inner organization of RHC was to be recreated so as to produce a marketplace *within* the cooperative for members to exchange their shares, to create more investment options and for testing out new organizational tools. Second, RHC was to be joined by a new organization, a start-up based in the USA, soon to be called the Economic Space Agency. The objective was to compartmentalize risks accruing from a new development phase, allow for more funding options for research and development, and to make sure RHC's original idea and democratic ethos would not face difficulties (e.g. the possibility of co-optation with external funding involved).

Both of these new strategies are involved with the notoriously rapidly changing field of 'crypto economy' (Bryan and Virtanen 2018) opened up by the newest developments in financial technology. More specifically, what is at stake is experimentation with the decentralized ledger or database technology called the blockchain, introduced in 2009 through the launch of the cryptocurrency Bitcoin. The blockchain is heralded by many as an innovation comparable to the internet or the joint stock company, because it allows for scalable systems without the need for an organizing and governing centre (Davidson et al. 2016; see also Chapter 25 on alternative currencies by North in this volume).

The recent operations of ECSA and RHC 2.0 exhibit two very different sides of this much-hyped technology. The potential ECSA sees in the blockchain is that it will revolutionize economic organization, since it allows for the creation of 'economic spaces' that are 'protocols of economic, financial and social interaction, of value and risk creation, of sharing and distribution of resources' (ECSA 2018, p. 235). The group is currently programming a basic architecture that would allow for the creation of and interoperability between heterogeneous economic spaces (each with its own rules, values, valuation metrics, organizational forms, etc.) while respecting their incommensurability. The goal is that any individual or group could use the technology to quickly set up its own economy not constrained by physical distance or (currently) enforceable governance. ECSA calls its proposal a 'computing fabric', enabling the spread of financial technology for 'rendering the rich, heterogeneous multiverse of values socially and financially liquid' (ECSA 2018, p. 240). Instead of liquidity in terms of a universal equivalent, money as we know it, this multiverse would be composed of a proliferation of self-governed *and* interoperable metrics.

The case of RHC 2.0 provides a counter-example that reminds us to stay vigilant when faced with technological promises. The organizational change launched in 2016 within the cooperative had as its aim to create a closed market of shares and a platform for the development of new options and organizational forms. The basic first step was to transfer RHC's membership register onto the blockchain, that is, into a decentralized rather than centralized mode. However, this seemingly simple operation proved to be surprisingly complex and costly, and was burdened by technical bottlenecks. Through a series of misfortunes, this move has made the cooperative largely inoperative for around three years (e.g. with no possibility to add new members, no access to individual shares information). As of 2019, there seems to be again light at the end of the tunnel, but this experience underlines the vulnerability accompanying technological experimentation.

FINANCIAL TROUBLES TO STAY WITH

Heretical Ethics

It remains to be seen what kind of effects these organizations will eventually yield. What kind of provisional lessons can, for now, be drawn from these explorations with algorithmic activism? I want to raise three issues. First, the question of ethics. Polemics have surrounded RHC's operations for the whole time. While the need to create more sustainable and just alternatives to capitalist finance is a widely shared goal, RHC's parasitic strategy is unconventional. In 2014, in a colloquium in Finland, Virtanen presented *Parasite*'s heretical tactic of tuning into the rhythms of Wall Street in order to reap benefits. When he was questioned about the ethics of funding whatever investors venture into (including fossil fuels, arms trade, etc.), his answer was to explicitly distance RHC from 'ethical' investment: 'We are the worst assholes of the precariat' (Virtanen 2014, translated by Alhojarvi).

As he explains elsewhere, '[Robin Hood's] stance is an ethic-free, moral-free territory where experimentation is the only guiding principle. Anything may be expected from us. There is no criterion for good or bad since there is no solid context to which such an evaluation could refer' (Piironen and Virtanen 2015, pp. 102–3). This is not solely a relativistic argument, but instead the 'ethic-free territory' here is better understood as a space of operation freed from the constant production of subjectivity, expectations, potentiality and affects so central to cognitive capitalism. To claim an ethic-free territory is to reclaim space for autonomous decisions, since ethics here is precisely about the production of desire and the cultivation of subjects that leniently produce value, take debt and do unsurprising activism.

Interestingly, this comes quite close to Gibson-Graham's view, albeit with a symmetrically opposed vocabulary. Whereas for RHC ethics is a suspicious terrain because it is so capitalized, for Gibson-Graham (2008, p. 156) ethics means precisely a space of negotiation and decision as opposed to something 'structural' or something 'good'. As they write, '[b]y opening the economy to ethical negotiation, we do not presume to fill it up with positive notions of desirable futures' (Gibson-Graham 2008, p. 156). Instead, economy becomes an 'ultimately undecidable terrain' in which, however, we need to negotiate, seeking simultaneously 'an enlarged space of decision' (Gibson-Graham 2006b, p. xxxiii). This kind of framing has very little to do with activism that seeks clean and uncompromised positions, and very much to do with appreciating compromise and imperfect starting points as the grounds for negotiation and struggle.

Furthermore, if we take seriously the hypothesis that the production of subjectivity and ethics are precisely key grounds for the reproduction of capitalist organizations, then perhaps all self-evidently 'good' activist methods and coherent positions warrant our suspicion. The parasitic strategy of RHC is uncomfortable for sure. Reflecting on RHC's tactics, Nelms (2016, p. 3) argues that the origins of modern finance are 'deeply intertwined in histories of slavery and racial discrimination; it is an open question to what degree parasiting off financial systems today leaves such persistent forms of inequality and dispossession not only unchanged but unchallenged'. This remains – indefinitely – to be figured out.

But perhaps the opening of such questions is one of the most interesting aspects of a parasitic strategy in the first place, as it invites us to stay with an uncertainty about whether we end up challenging or benefiting 'the host' (Burton and Tam 2015). Despite the undecidability, decide we must. As one RHC member wrote in the discussion forum:

> [W]hile I strongly align myself with an ethics beyond good and evil . . . this doesn't mean that we can just invest money in whatever and just claim that our post-ethics liberates us from ethical problems. It is a problem that we invest in all sorts of things, but the answer to the problem is elusive. I see Robin Hood as an approach to figure out an answer to the problem. Robin Hood is not the answer itself, it is a means not an end.

Technological Literacy

The second lesson concerns the tools and methods at stake in financial hacking. One of the difficulties in studying financial hacking stems from the sheer opacity of the technologies. In my case, there is no doubt a heft of personal incapacities involved, but this seems to be a shared experience with regards to the technologies of financial activism. To explore the master's tools is also to inherit some problematics from them. Financial technologies are key to reproducing capitalocentric discourses that consolidate an expert-driven 'machine economy' (Gibson-Graham et al. 2013), and they are intimately tied to the production of feelings of incapacity, ignorance and inadequacy among those who find their lives determined by finance but find no access to finance as an ensemble of tools for self-determination.

Admittedly, part of the explicit purpose of RHC and ECSA is centred on challenging divides between experts and non-experts. Both projects strive to *democratize* finance and financial technologies, which necessarily means democratizing also the knowledge production and distributions of labour (Suoranta and Vadén 2008). This means that pedagogical issues – barriers to intellectual and practical emancipation – need to be at the core of financial hacking. As Virtanen (Piironen and Virtanen 2015, p. 95) argues, '[b]y taking something sacred, which we are not allowed to touch or which only the priests can touch and understand . . . we are returning it to common use and play'. This project entails not only singular explorations, and what Scott (2013) calls 'experiential learning', but also an accumulation, testing and development of richer knowledge about finance as possibility: 'Like deeper "digital literacy", we need rich "economic literacy"' (ECSA 2016).

However, financial technologies often push back against efforts of democratization. There is a mismatch between the ethos of democratizing finance – including its knowledges, sites and agencies – and a practice that remains exclusive in terms of intersecting forms of ability, gender, accessibility, knowledge, etc. In the case of RHC, there are plenty of examples of this friction. The irony of a group of university professors and PhDs 'democratizing' finance, and speaking for/as 'the precariat', has not escaped its analysts (e.g. Foy 2013). Although core actors have undergone remarkable efforts to explain how RHC and its algorithmic operations work, different stages of confusion have often surrounded the debates at the RHC's discussion forum and Annual General Meetings.

It may then be necessary to concentrate on how inherited forms of hierarchies and exclusive expertise may be reiterated against our best intentions. Furthermore, it might be worth looking at how the economic literacy promoted by these projects is able to connect to and foster other knowledges, ones practised very often by people disenfranchised by all that comes along high-tech. My sense is that we also need to question the capitalocentric framing that accompanies so many 'alt.economy' (Nelms 2016) projects and that posits them as immanent 'solutions' while setting up a wider canvas of hegemonic and historical capitalist financialization or 'monoeconomy' (ECSA 2018, p. 236). Insofar as financial technologies and discourses are marked by capitalocentric characteristics (in the sense of being disenfranchising, and offering pre-limited and hierarchically differentiated access for interventions and learning) better prospects for alliances might be found through strategies of reading for difference rather than dominance.

Twisted Spaces

The third lesson concerns economic spaces. I see in RHC and ECSA two distinct ways of creating economic spaces. The parasitic algorithmic strategy of RHC emerged simultaneously with Occupy Wall Street, and it has sometimes been framed as a continuation of Occupy by other means. Not only a discursive 'reframing' of finance as a landscape full of potentiality, RHC has managed to enter the space notorious for its exclusivity and to fold it into a project operating for specific non-capitalist purposes. Although troubled by financial, technical as well as social obstacles, as we have seen, RHC's parasitic strategy has managed to reformulate and practise finance as an unforeseen opening. Moreover, through funding rounds, grassroots projects have received an opportunity to benefit from the semiotic value production of Wall Street. Instead of reproducing the typical image of capitalist finance as a self-controlled sphere – or bubble – that determines but cannot be determined (at least not by someone like me), RHC has burst this bubble in practice and related together capitalist and non-capitalist spaces in an exhilarating sphere of potentiality. It thus provides one provisional answer to Gibson-Graham's (2006a, p. 138) question: 'How might we confront the economic "unthinkable", engendering a vision of the global economy as penetrable by noncapitalist economic forms?'

In contrast, ECSA has adopted a spatial discourse to describe its efforts to redesign crypto-technologies for creating 'n-dimensional programmable and vibratory organizations' (ECSA 2018, p. 236). If *Parasite* is a topological folding of capitalist and non-capitalist spaces, then ECSA is an effort to explore other dimensions that the newest financial technologies might render possible – if hacked appropriately. These technologies are 'synthetic, plastic, moldable, filled with topological capacities which are in effect just waiting for someone to start reengineering them for the production of a very different economic space' (ECSA 2016). This type of financial hacking draws our attention to the crucial role that technologies have in creating possibilities for scalability and connectivity. The relations within any diverse economy are always also mediated by technologies, and these media perform and enable different kinds of relational economic spaces. If we are to think financial spaces outside the 'binary frame' of global vs. local (Gibson-Graham 2002), experimenting with such financial technologies might make sense.

Both projects are still in development and their next steps and eventual effects are still to be actualized. Whereas RHC is now humbly picking up its pieces to go forward again, ECSA on the other hand surrounds itself with hype, not holding back its ambitions: 'Just as the internet fundamentally changed communication . . . ECSA will transform finance, potentially enabling hundreds of millions of people to author economic spaces and control their financial relations' (ECSA 2018, p. 238). We might want to digest such statements with care, noting the crucial role that hype and grandiose statements have within the crypto-economy and financial technology more generally to allure attention, affective energy and, quite simply, capital. As RHC's and ECSA's own theoretical background underlines so clearly, in an age of semiotic inflation and constant information overflow, the performance of success (as if on a stage) is a crucial precondition of possibility for any actual success.

Yet, there is something in the air. Something that seems like an ephemeral promise of more space to breathe, move and self-determine, against all the odds of capitalist financialization.

It almost feels like remembering the possibility of a future. Perhaps this is, in these foreclosed times, not the smallest achievement. As McKenzie Wark (2004, p. 178) ends the *Hacker Manifesto*: ‘There are other worlds and they are this one’.

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