

SPECIAL ISSUE ARTICLE

The algorithmic law of business and human rights: constructing private transnational law of ratings, social credit and accountability measures

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Abstract

This paper examines the rise of algorithmic systems – that is, systems of data-driven governance (and social-credit-type) systems – in the form of ratings systems of business respecting human rights responsibilities. The specific context is rating or algorithmic systems emerging around national efforts to combat human trafficking through so-called Modern Slavery and Supply Chain Due Diligence legal. Section 2 provides a brief contextualisation of the problems and challenges of managing compliance with emerging law and norms against forced labour and, in its most extreme forms, modern slavery. Section 3 examines the landscape of such algorithmic private legal systems as it has developed to date in the context of forced labour ratings systems. There is a focus on the connection between the power to impose the normative basis of data analytics and the increasingly tightly woven-in connection between principal actors in this endeavour.

Keywords: human rights; rating systems; algorithmic legal systems; data governance; compliance; private law

1 Introduction

Human systems, qualitative or quantitative, require two principal elements to make them viable as collective regulatory measures: they require a normative super structure and they require an institutional structure for the interruption and application of this normative superstructure. While this is commonly understood within traditional systems of regulatory governance (Aguirre, 2011), its application to quantitative methods of ordering collective behaviour is less well explored (Backer, 2022a). This paper considers the use of algorithmic systems – that is, systems of data-driven governance (and social-credit-type) systems – in the context of the regulation of the human rights effects of economic activity. It then considers the way that algorithmic systems, like ratings systems, may be impacted by the interlinking networks of human and in institutional ratings systems builders.

The object is to advance the discourse of algorithmic law between two distinct lines of scholarship that have only recently emerged. The first is a line of scholarship that focuses its inquiry of algorithmic law and data-driven governance – by positioning the conversation around pragmatic issues, including the potential social harms and/or gains that could be had from algorithmic law and more generally data-driven governance (Campbell-Verduyn *et al.*, 2017; Smith, 2020; Katzenbach and Ulbricht, 2019; Robinson, 2017; Brown, 2020). In that vein, some important scholarship has focused on issues of definition (algorithmic law) and, quite influentially, others developed proposals on how to tame, contain and regulate their manifestation (Pasquale, 2017; Alang, 2019). Another line of scholarly development considered the ramifications of the rise of platforms used to support the structures and operations of algorithmic law (Barns, 2018; Martin, 2019). Of particular utility has been scholarship of domestic governance policies supported using algorithmic law and especially of the use of

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predictive analytics within multiple fields including governance, health care, economics, etc. (Van Calster *et al.*, 2019; Lena and Delen, 2020; Curran and Smart, 2021). This discussion foregrounds ethics and the threat of algorithmic governance to established political values (e.g. privacy, autonomy, equal treatment; Pasquale, 2015; Sandvig *et al.*, 2014).

Ratings-based regulatory structures serve as a gateway for developing predictive analytics that has regulatory potential in ways that may serve liberal democratic values to the same extent as it appears now to serve Marxist Leninist values (Curran and Smart, 2021). In this sense, these mechanisms advance a discussion on algorithmic law's role in international human rights law (McGregor *et al.*, 2019).

Ratings systems serve as a useful entry point for the examination of emerging structures of algorithmic law and governance (Backer, 2018). Ratings systems advance the best intentions and objectives of a human rights and sustainability-based governance order. It merges the power of markets, with the accountability measures of analytics, and it transforms the normative principles of business, human rights and accountability to easy-to-understand-and-apply ratings' (*ibid.*).

All that is required is a set of normative ideals that can be reduced to a set of measurable inputs. Relevant data are then identified and harvested. These are then consumed in a system of analytics from which an entity's performance can be measured against the ideal – and against the performance of other entities. On that basis, normatively infused judgments can be attached to the measures (e.g. 'excellent', 'good', 'fair', 'unacceptable' performance). The intersection of traditional law and algorithmic analytics occurs in the context of norm identification, data accessibility and integrity, and the consequences (in law and in markets) of the ratings and of the judgments derived therefrom. While traditional law serves as a constituting and quality-control superstructure, the regulatory-administrative operation is situated within the ratings systems, in conformity with the measures of which an entity seeking a higher rating will have to conform its behaviour. Beyond that, *markets for ratings systems* may also drive ratings structural and operational integrity (Nguyen and Altan, 2011).

The core focus of this contribution is on the ratings-based regulation of human trafficking. The reason is simple. This is one of the areas in which states and public international bodies have already sought to legislate and around which there is consensus on core normative principles. Over the last decade, states have started mandating disclosure regimes intended to change behaviour (UK Modern Slavery Act 2015; Backer, 2008a; Modern Slavery Act 2018 (Australia)). Others have sought through disclosure and response regimes to mandate the construction of more comprehensive administrative regulatory regimes by entities now responsible for conduct across their production chains (e.g. Rünz and Herrmann, 2021; Lavite, 2020). In the process, what some have identified as 'hard soft law' (Linsay *et al.*, 2017) has been created, in the sense that soft law regimes developed at the international level (Landman and Silverman, 2019; Mende, 2019) are then hardened in the private rule systems of the international regulation of enterprises when commanded by provisions of national legislation. The issue, then, has become centred on the transposition of international norms and principles into the regulatory systems of enterprise internal governance by operation of domestic legislation, rather than into a domestic legal order (the customary mode of domestication of international public norms) (Van Schaack, 2014).

Sections 2 and 3 examine the landscape of such algorithmic private legal systems as it has developed to date in the context of forced labour ratings systems. The ratings systems provide insight into the way that division of labour, property regimes and the principles of markets play a role in the translation of theoretical structures of algorithmic governance to concrete measures. In the process, it also points to the very human and institutional issues of the structures of power within which these ratings systems are now driven and controlled. The goal is to dissect these rating systems and their methodologies in a fashion that makes their make-up understandable even to those who have no prior knowledge of this style of rating. This section systematically discusses three separate rating systems (Financial Times Stock Exchange (FTSE) 100, KnowTheChain (KTC) and Green America Chocolate scorecards). The similarities and differences between the three should be made apparent during the exhaustive dialogue that is used to remove any veil acting as a barrier to understanding these systems. This

section's importance is based on its ability to expose the mechanisms involved in the construction of a prototypical rating system, as well as their effectiveness. What at first blush may appear to be big data and ratings-based 'hypernudges' (Thaler and Sunstein, 2008), as data-based mechanics for guiding decisions, can become substantially less of a nudge (Bovens, 2008) and more of a complex interlinking of stakeholders producing a regulatory framework from out of interrelated ratings focused (as we will see in this section) on a specific objective (Yeung, 2018). In understanding its construction and effectiveness, the conceptual make-up of other data-driven governance systems should be more digestible.

2 The algorithmic law of rating systems: rating systems and data governance

Data governance systems are rapidly appearing around the world in the form of ratings. Many of these are grounded in specific application of Environmental, Social and Governance (ESG) and Corporate Social Responsibility (CSR) rating systems to specific issues (SustainAbility, n.d.). Prominent among these are issues of forced labour and modern slavery. The growing field associated with rating systems has attracted investment and partnerships from enterprises, private foundations and civil society organisations, including the Bill and Melinda Gates Foundation (Study to Develop an Indian Healthcare Ratings System 2008), the Walt Disney Company, Walmart and Verité (e.g. Verité, 14 July 2020). At the same time, that interconnectivity shapes the space within which such systems are developed and deployed – moving them from a form of legal-administrative to a system of platform governance (Backer, 2021).

2.1 CUMULUS Forced Labor Screen™ platform

Verité's Remote CUMULUS Forced Labor Screen™ platform is instructive. This tool was developed with philanthropic support from the Agnes Varis Trust, the Walt Disney Company, Skoll Foundation, Walmart Foundation and Humanity United (Verité, *CUMULUS Forced Labor Screen™*). It is a 'remote, technology-driven approach to labor supply mapping and predictive forced labor screening in supply chains' (Verité, 2020). The data harvested by CUMULUS are then analysed by Verité 'using a detailed and targeted Due Diligence Assessment (DDA). The DDA focuses on contractual and financial relationships, as well as recruitment, deployment, and management systems specific to migrant worker populations' (Verité, 2020).

The system does several things that together points towards data-driven regulatory governance. First it targets and gathers data. That data are chosen both with respect to the analytics within which they will be consumed and purposed, but also with a mind towards the principles and objectives of international and national norms respecting the subject area, in this case forced labour. Second, from that data harvesting, it models the field. Modelling becomes the means through which an idealised baseline can be created against which the actions that constitute data can be assessed. But the analytics, in the form of its DDA, do more than that – they are predictive. In this aspect, data-driven governance moves from assessment not just to correction, but also to engineering the 'right' response. 'Rightness' of course is based on the principles and assumptions from out of which the analytics were constructed and the model directed. These, in turn, are used to provide

'a cost-effective, technology-driven approach to identifying forced labor and human trafficking risk in global supply chains. Through a secure online platform, member companies can map their labor supply chains and proactively screen for forced labor risks introduced by supply chain partners' recruitment practices and recruitment agents' (Verité, *CUMULUS Forced Labor Screen™*)

This approach is not unique to the sphere of forced labour (e.g. Keller *et al.*, 2017).

Forced labour rating systems are typically sourced from a pool of data and records that are semi-voluntarily disclosed by companies in a self-regulatory manner. The organisations behind these rating

systems are often ‘protagonist’ non-governmental organisations (NGOs) (Backer, 2018). These rating systems often share close indicators with the International Labour Organization (ILO)’s standards. Many of these rating systems are relatively new due to the ILO’s heightened efforts to remedy and prevent the use of forced labour by putting more pressure on participating states. Some governments have taken action on their own that have aided in the data collecting on these companies. This short list would include the Modern Slavery Acts in the UK and Australia, the California Transparency Act and the French Duty of Vigilance Law. These laws are all use to coerce companies into a more transparent divulging of information. These laws, along with others, work as a regulatory framework with the goal of detecting and preventing the use of forced labour throughout a supply chain. In the absence of substantive domestic legal regimes, NGOs have sought to harden international forced labour norms within the private law systems of entities through the discipline of global markets (for products and capital) (cf. Antolín-López *et al.*, 2016). To that end, states supplement ratings-based market-centred efforts in the form of their disclosure and remediation regimes. State participation remains at the margins precisely because their national regimes are neither co-ordinated nor necessarily consistent and may, to some extent, be avoided.

2.2 FTSE 100–2018

Following the introduction and passing of the Modern Slavery Act by the UK Parliament, there is now a requirement for some companies to publish statements that dictate their plans and actions that have been taken to avoid the use of modern slavery. The tracking of these statements has largely been carried out by the Business & Human Rights Resource Centre. The Modern Slavery Registry is an entity that responsible for holding the released company statements. This pool of documents is operated by the Business & Human Rights, simplifying the direct lineage to the information that is necessary to analyse for this rating system. The Business and Human Rights Resource Centre produces reports for both companies and investors, and they are funded by a multitude of different actors that include governmental agencies, private foundations and donating individuals.¹

This rating system scores 100 of the largest companies to register with the FTSE over the last three years. The 2018 rating system includes fifty-four different indicators under six separate rating sections (Business and Human Rights Resource Centre, 2018). These rating sections include Business and Supply Chain Structure, Policies, Due Diligence, Risk Assessment, Effectiveness and Training. The methodology for these scoring sections required the use of other external sources. Twenty-four of the indicators were referenced from the KTC site that also serves as hosts to another forced labour rating system discussed in this paper (*ibid.*). KTC is a resource used by companies, consumers and investors that benchmarks corporations based on their disclosure reports using a methodology of their own.

Other sources that were also referenced when deciding the methodology included the Ethical Trading Initiative (ETI), CORE Coalition, Corporate Human Rights Benchmark and the Workforce Disclosure Initiative. The ETI, which is referenced as a source for nineteen of the fifty-four scored indicators, is made up of member companies, trade unions and voluntary organisations, with the goal of promoting the steps companies need to produce more ethical trading (ETI, *Our Members*). The ETI receives funding from the UK’s Department for International Development (DFID) (ETI, *Funding*). The CORE Coalition, which is a source of forty of the fifty-four scored indicators, is a group that works to promote and improve social responsibility (CORE, *What We Do*).

¹The funding universe is understood quite precisely and correctly grounded in conflict-of-interest principles: ‘To maintain our independence the Business & Human Rights Resource Centre will avoid any conflict of interest or reputation risk by not accepting donations directly from companies. Our primary sources of income come from independent foundations, governments and individual donors. The Resource Centre’s senior management team will review potential donations from corporate foundations, senior executives at major corporations, and pro-bono legal support on a case-by-case basis where the risk of conflict of interest and reputation risk is judged to be low’ (Business and Human Rights Resource Centre, 2020a).

CORE is currently primarily funded by two separate trust funds: the Joseph Rowntree Charitable Trust and the Sigrid Rausing Trust (CORE, *Our Partners*). Another external source is the Workforce Disclosure Initiative, implemented in 2019, which is referenced as a source for twenty of the fifty-four scored indicators (ShareAction, *Workforce Disclosure Initiative*). This initiative, which originated under the ShareAction charity, works to promote greater transparency within companies' practices within their direct operations and their supply chains (ShareAction, 2019) by bringing investors together to request comparable data through its annual survey (ShareAction, *Workforce Disclosure Initiative*, hereafter 'WDI'). The WDI project is undertaken in conjunction with partners: the Shareholder Association for Research and Education (SHARE) and the Responsible Investment Association Australasia (RIAA) (ShareAction, 2019). Its member organisations include Amnesty International, Caffod, Christian Aid, Citizens UK, Unite the Union, WWF, Green Peace, TSSA, Oxfam, Prospect and the University and College Union (ShareAction, *Our Member Organizations*). Within this one rating system, the wide range of funders is evident; whether it be private donors, trust funds, corporate donation or governmental agencies, they have all played a financial role in the creation of this methodology.

Lastly, the Corporate Human Rights Benchmark, like the KTC rating system, also rates companies against its own human rights indicator (Corporate Human Rights Benchmark, *Homepage*). It is referenced as a source of twenty-three of the fifty-four indicators. It is governed by a multi-stakeholder group that includes the Business and Human Rights Resource Centre, the Institute for Human Rights and Business, the EIRIS Foundation, Aviva Investors, APG Asset Management and Nordea ABP (Corporate Human Rights Benchmark, 2019, 'Acknowledgements'). Reprisk (a business intelligence provider) is credited with the provision of the ESG risk metrics and analytics for serious allegations assessments and also notes (as of 1 September 2020) its future parent – the World Benchmarking Alliance (Corporate Human Rights Benchmark, 2019).² It is particularly interesting for its assertion that it is a 'unique collaboration led by investors and civil society organizations dedicated to creating the first open and public benchmark of corporate human rights performance' (Corporate Human Rights Benchmark, *Who We Are*). Lastly, it includes a list of key allies that include the Australasian Centre for Corporate Responsibility, the Investor Alliance for Human Rights, Interfaith Center on Corporate Responsibility, KTC, UNEP Finance Initiative and the World Benchmarking Alliance (Corporate Human Rights Benchmark, *Governance and Team*).

The methodology for the scoring of these companies is contained in a structured and detailed quantitative manner that is closely transferred from qualitative data. Each of the fifty-four indicators is used to measure the company using one of the three following scores: 0, 0.5 and 1. The final score is decided by adding all of the scores for each indicator and dividing that summation score by 54. This equation results in the cumulative score for the company's performance. Each section has a score based on the percentage of the possible points the indicators in that section receive.

The first section rated was the Business and Supply Chain Structure. This rates the company's ability to clearly disclose a road map of its operations, business relationships and supply chains in a digestible fashion for the reader. The low average score of 31 per cent was primarily the result of lack of disclosure. About 40 per cent of the companies neglected to disclose the make-up of their workforce. About 45 per cent of the companies failed to release adequate information about their supply chains and other goods and services used throughout the company.

The second section scored was the Policies in Relation to Slavery and Trafficking. This section rates the policies and standards for itself, its partners and its supply chain in dealing with modern slavery. This section received the highest average score, scoring a modest 41 per cent. It is not clear, however, that this component of ratings does more than suggest the willingness of entities to develop policy in writing rather than serving as a rating of the effectiveness or comprehensiveness of that policy.

²'CHRB Methodology focuses on companies' policies, processes, practices, as well as how they respond to serious allegations. This is done through the application of specific indicators across six Measurement Themes of different weights' (Corporate Human Rights Benchmark, *CHRB Methodology*).

The third and fourth sections focus on Due Diligence processes and Risk Assessment and Management. The third section's recommendations follow closely with the UN Guiding Principles Framework's explanation of Due Diligence and corporate responsibility to conduct a risk management process to identify, prevent, mitigate and account for all activity that has an adverse human rights impact. This section's average score was 35 per cent. The Risk Assessment and Management section is similar to the Due Diligence section where it requires the company to assess the potential risk for modern slavery within the company or its supply chains. Mapping of the supply chain is necessary as this, along with other practices, should work to actively mitigate, prevent and remediate any usage of forced labour throughout the company and its partners. The average score for this section was 31 per cent. Although the criteria appear to be similar to the prior section, the mapping of the supply chain carries great importance in this section and there was only 15 per cent mapping by companies participating.

The fifth section rated for the Effectiveness of the policies set in place, the purpose of which was to detect the company's ability mitigate those risks that have been identified and assessed with the mechanisms used to satisfy the third and fourth sections. This was measured against articulation of Key Performance Indicators (KPIs) to identify the effectiveness of the company's progress. Along with this, companies should also have corrective action plans in place for suppliers who are non-compliant with modern slavery standards. A little over 35 per cent of companies had KPIs put in place and even fewer, at 25 per cent, had corrective action plans set up to control their suppliers. This section had the lowest average score, at 17 per cent.

The sixth and final section rates the training offered to the departments that have the highest risk in dealing with modern slavery. It encourages suppliers to do the same within their company so that these standards and expectations can flow throughout the whole supply chain. Although the average score was 28 per cent, about 80 per cent of companies reported giving employee training of some kind on modern slavery. Only about 20 per cent used an external source to provide this training. Over 20 per cent of the companies said that they offered their suppliers on this matter to their supplier.

The overall scores were considerably low. The average score was 31 per cent, meaning that there is an overwhelming number of low scores. Investors were urged to better understand how the reduction of modern slavery usage within a supply chain is necessary to show good governance. This ought to translate into greater engagement and advocacy for an increasing commitment to the reduction of modern slavery usage within a company's supply chain.

2.3 KTC 2018 ratings

KTC is a forum that evaluates the efforts of corporations to assess and address forced labour throughout its structure and supply chain. This rating system is a benchmark that assesses companies using the published statements released said company. The benchmarks are divided into three specific sectors. These sectors are Information and Communication, Food & Beverage and Apparel & Footwear. The 2018 rating included 121 companies that were fielded within those sectors (KTC, 2018).

KTC rates these companies every two years. Their rating system is set up in a more arbitrary fashion than the structured and detailed scoring system done by some of the other rating systems such as the FTSE 100. This scoring system uses the amalgamation of twenty-three indicators over seven sections. Grading each indicator using a formula that is not publicly shared, they are able to average the scores for each of the seven sections, resulting in the scores that are used to define that section. Those scores are then averaged out to determine the overall score that is used to rate the company. This scoring method factors all of the indicators that are included to be of equal importance when it comes to grading each company. KTC is particularly interesting for the way in which it produces its ratings through the management of a diffused system of data generation, analytics and ratings construction.

To create their ratings, KTC uses four strategic partners: Humanity United, Business and Human Rights Resources Centre, Sustainability and Verité (KTC, *Partnership Explanation Page*). All four serve very different roles. Humanity United is said to be 'closely involved in the project management and communication efforts of the benchmarks'. KTC is one of Humanity United's many initiatives to

combat the practices of using forced labour and human trafficking (Humanity United, *Forced Labor & Human Trafficking*). The Business and Human Rights Resources Centre is used to seek out company statements and data used to create the rating system. This human rights nonprofit has been able to track over 6,000 companies all around the world when it relates to their performance in the handling human rights. It also ‘contributes to strategy development, company, investor and stakeholder engagement, methodology development, company selection, disclosure research and analysis, and the overall project management of Know the Chain’ (*ibid.*). This close relationship is obvious when looking at the FTSE 100 rating system that is produced by the Business and Human Rights Resource Centre.

According to its home website, Verité is an ‘independent, nonprofit, civil society organization’ (Verité, *About*). Since its inception, it has partnered with hundreds of corporations, nations and organisations around the world to illuminate labour rights violations within supply chains, with the goal of remediating these human rights risks. Verité’s diverse field of partners and clients include, Mars Inc., Nestle, Patagonia, the United States Department of Labor, the ILO, Humanity United and more (Verité, *Partners & Clients*). The partnership between Verité and KTC is noteworthy; Verité has the ability to use its own technology to identify the risk of forced labour within the company and its supply chain using their CUMULUS forced labour screen, but that is not what they are used for. The development for this groundbreaking assessment tool (CUMULUS) was funded through grants from Agnes Varis Trust, the Walt Disney Company, Skoll Foundation, the Walmart Foundation and Humanity United (Verité, *n.d.*, CUMULUS Forced Labor Screen™). Other services offered include assessing a company’s business practices, consulting a company on their ability to proactively control risk to the business and their employees, researching on complex labour issues and advocating for their reform, and they provide training for stakeholders to educate them on ethical business practices. Even with the identifying technology that they possess, KTC does not use Verité for the ranking or scoring of the company. They are very intentional in making it understood that Verité does not have power over the output of the rankings. Verité is only used to assist by giving input for the benchmark methodology.

Lastly, Sustainalytics, described as the ‘largest independent provider of sustainability research and analysis to investors. Sustainalytics supports the development of the KnowTheChain methodology as well as the company selection process’ (KTC, *Questions? We’ve Got Answers*), is utilised for its analytics capabilities. Sustainalytics, in turn, was created out of the merger of three companies: DSR, Scoris and AIS (Sustainalytics, *About Us*). Sustainalytics focuses on promoting a more sustainable global economy through ESG. It offers data on 40,000 companies around the world and has rated 20,000 companies in 172 countries (Morningstar, 2020). Sustainalytics has provided their own analysis of previous benchmarks. In July of 2020, Sustainalytics was acquired by its new parent company, Morningstar Inc. Morningstar Inc. works to advise potential investors by educating them using the data and information collected through its own independent research. Morningstar is a privately traded company that looks to use this acquisition to further its efficiencies in rating for their goal of empowering investors. The structured relationships between KTC and its partners build a visible bridge between research and distribution for rating systems to assist in the decision-making of investors and other stakeholders.

The 2018 benchmark the scores suggested a substantial gap between the ideal performance and that derived from the data collected.³ The scores that were recorded for the companies rated ranged from a high of 92 attained by Adidas AG to a low score of 0 by a multitude of companies. The KTC website publicly breaks down the scores of every company that is rated within this benchmark. The overall

³The average score for the Information and Technology was 32, the Food & Beverage average was 30 and the Apparel & Footwear averaged at 37. Within Information and Technology, the section scores went as follows: Corporate Governance – 55, Traceability & Risk Assessment – 29, Purchasing Practices – 40, Recruitment – 27, Worker Voice – 15, Monitoring – 33, Remedy – 26. Within Food & Beverage, the section scores went as follows: Corporate Governance – 55, Traceability & Risk Assessment – 27, Purchasing Practices – 38, Recruitment – 16, Worker Voice – 19, Monitoring – 27, Remedy – 28. Within Apparel and Footwear, the section scores went as follows: Corporate Governance – 54, Traceability & Risk Assessment – 31, Purchasing Practices – 42, Recruitment – 18, Worker Voice – 26, Monitoring – 49, Remedy – 37.

score is disaggregated to create the section scores, which are further broken down to the indicator scores. The indicator scores were recorded in the same 0–100 range as the overall rating system was recorded in. At this level of scoring, KTC now has full autonomy over the review. Although there is a review that provides evidence to support the scoring of the companies, it is at this level of analysis that qualitative data are more arbitrarily converted into a quantitative score. There is very little guidance on how the subtle differences in indicator scores are derived. Although there is a semblance of a methodology that logically maps out the way the final score used in the rating system is concluded, there seems to be a veil over how the original numbers that were averaged out into a final score came to be. Even with this reduction in transparency, this rating system acts in a similar way to the FTSE 100. They recognise a problem, detect it within a company, prosecute it through ratings and detail possible remedies to improve the company's current standing.

2.4 Green America – 2019 Chocolate Scorecard

The Green America rating system is the most dissimilar out of the three rating systems discussed in this paper. This rating system does not operate under a quantitative system but instead it uses a grading system, termed as a scorecard. Just like the average American school system, the grades range from A to F. These chocolate companies have been rated using a variety of methods to turn many quantitative and qualitative factors into one graded score. The formula for this scoring method is not published but the factors that are considered when scoring are published. This scorecard is rating these chocolate companies on their commitment to using certified cocoa as well as their progress towards having 100 per cent of their chocolate certified throughout their supply chain. The data collected about each company include the Labor Certification that is obtained, the percentage of cocoa certified, what they company has done beyond just obtaining a certification, its efforts in deforestation and whether or not 100 per cent of its cocoa will be certified by 2020 (Green America, *Child Labor in Your Chocolate?*).

The labour certifications that were examined on this scorecard included Fairtrade (International), Fair Trade USA Certified, IMO Fair for Life and the UTZ/Rainforest Alliance. These independent stamps of approval carry different standards as well as different influence within the organisations that handle each individual certification. Fairtrade International is an organisation that works 'to connect disadvantaged producers and consumers, promote fairer trading conditions and empower producers to combat poverty, strengthen their position and take more control over their lives' (Fairtrade International, *Our Mission and Vision*). To be certified by Fairtrade, a company must not use forced labour, child labour or discriminatory practices. Along with this, a Fairtrade International product requires a minimum price that is paid to farmers and a premium that is reinvested into the community.

All products certified by Fairtrade International must use the sourcing of ingredients that are certified as well. Fair Trade USA is a separate certification from Fairtrade International due to the fact that Fair Trade USA separated itself from the Fairtrade International umbrella. Its mission is to promote 'responsible business, conscious consumerism, and shared value to eliminate poverty and enable sustainable development for farmers, workers, their families, and their communities around the world' (Fair Trade Certified, *n.d.*). To be certified by Fair Trade USA, the use of forced labour, child labour and discrimination is prohibited. It also works to protect the rights to collectively bargain. IMO Fair for Life is a certification that works to promote socially responsible practice by certifying that farmers are paid fair wages, preventing child and forced labour, and the use of Fair Trade ingredients in its products. UTZ and Rainforest Alliance are now merged but have separate certifications offered. The requirements are similar to each other, and those previously mentioned, as they protect against the use of forced labour, child labour and discrimination. One large difference is the omission of a floor price necessary to obtain a Rainforest Alliance certification. There is no minimum price required to pay to farmers. As for UTZ, a minimum price is based off of negotiations between buyer and seller but must meet legal minimum-wage requirements.

Beyond the basic certifications this rating system analyzes the company's commitment to sustainable sourcing of cocoa. This includes the avoidance of forced labour, commitment to reducing the pressures and enticement of using forced labour, and healthier farming practices. It is understood that the best way to prevent the use of forced labour is to detect it. The specific type of forced labour being sought and prevented is child labour in the supply chain. Many companies use a mechanism called a Child Labor Monitoring and Remediation System (CLMRS). These systems typically work with the communities where this cocoa is being sourced and look to find the root issues that help fuel the need for and accessibility to child labour. The first cocoa-focused CLMRS was launched via a partnership between Nestle and the International Cocoa Initiative (ICI). Many other companies have followed the example set by Nestle and have partnered with the ICI to implement a CLMRS (Fountain and Huertz-Adams, 2018). Although this initiative put forth by the ICI documents great efforts to remediate the use of child labour, it should be noted that many of the large chocolate companies that they partner with are now occupants on their board.

It is important to note that Green America is a member of the Voice Network. The Voice Network is a consortium of NGOs and trade unions that work together for sustainability in the cocoa business. They claim that their key work has to do with 'advocacy and research, speaking truth to power for the global chocolate industry' (Voice Network, *Homepage*) They do this by working as a watchdog with the goal of promoting fair wages, human rights, environmental protection, and transparency and accountability. In order to reach the places where cocoa is produced, developed into chocolate products and sold, Voice is a global network. It has members all around the world carrying out the initiatives that are set forth by the network. It should follow that the Green America Chocolate score card uses two sources to create their rating system. As is common amongst the other rating systems, the use of disclosed reports by the chocolate companies are used. Along with this, much of the methodology and targeted understanding regarding these reports come from the Cocoa Barometer. Although the Cocoa Barometer is co-ordinated by the Voice Network, it has contributions from consortium of organisations, all of whom are not members of the Voice Network. The following organisations contribute to this report: ABVV/Horval, Be Slavery Free (formerly Stop The Traffik Australia), the European Federation of Food, Agriculture and Tourism Trade Unions (EFFAT), FNV/Mondiaal FNV, Fern, Green America, Hivos, Inkota Netzwerk, International Labor Rights Forum, Mighty Earth, Oxfam America, Oxfam-Wereldwinkels, Public Eye, Solidaridad, Stop The Traffik Netherlands, Südwind Institut and Tropenbos International. Green America is acting as a satellite to project a message that is formed by the consortium of the Voice Network to an audience that otherwise may not be reached.

In the scoring of the chocolate companies, it is important to note the role of Green America is to be the arbitrator of the information disclosed by the chocolate company by using the perspective of the Voice Network Cocoa Barometer. There is no defined use of an equation to validate the consistency of the scoring. There is no explanation for why some chocolate companies that had a larger percentage of certified cocoa were graded lower than a rivalling company with a smaller percentage of certified cocoa. Even though there are more factors that are weighted into the grading of these companies, the creation of these grades does not follow a pattern that is interpretable to the reader.

One of the most interesting facts about this rating system is how it seems to be self-promoting in a way similar to the self-regulating that occurs through mechanisms that are overseen by the chocolate companies while working to remedy issues of child labour within the companies. In its final analysis, it grades fifteen companies that produce chocolate. Six of the companies have stamps that denote that they are members of the Green America Green Business Network. This is a certification that denotes a pre-graded stamp of approval, by the grader. Almost in a self-fulfilling prophecy, these six companies were graded as the highest, all receiving 'A' ratings on their score card. Only one company that did not have this 'grading fast pass' received an 'A' grade. None of these companies receiving 'A' grades ranks in the top ten of chocolate production (Voice Network, *Homepage*). On the flip side of this, six of the lowest eight scoring companies rank in the top seven of chocolate production (BizVibe, 2020). This may seem to be an indictment on the effectiveness of this rating system but there have been cited

observations made regarding the future trends in chocolate consumption moving towards more certified and sustainable sources. This is pressing the producers to also alter some of their practices in order to continue the high demand for their product.

3 From ratings to system

The information that was provided above carefully laid out the mechanisms within each of the three rating systems that were analysed. The principal stakeholders should be apparent for each rating system. There is a combination of state actors, NGOs and private companies that have invested resources into these rating systems. That investment contributes to both rating inputs and outputs; it affects stakeholders as participants and as objects. Accountability in each of these cases is also rule-making; the rules are derived from the analytics – and its basis is founded on the choice of data harvested. Those choices, in turn, reflect the core values around which the data-driven ratings are constructed.

The interactions between all of these parties are necessary, as previously stated, because of the inability of the state to do so. This style of governance has given a power, often only given to governments, that allows the setting of standards and norms. This should naturally entice those who are powerful in the private sector to try and take up space within this newly created power vacuum. An example of this would be the connection and contributions that have been made to these different rating systems by the foundation Humanity United. This foundation was created by the Omidyar Group (Humanity United). The Omidyar Group was founded by Pierre Omidyar, also the founder of eBay, and his wife, Pam Omidyar. The company website says that ‘Pierre is drawn to problem-solving – deeply exploring the complexities of challenges to identify the factors that will most impact change and find strategies to generate results’ (Omidyar Group, *About Our Philanthropic Organizations*). Through the KTC modern slavery benchmark, his foundation is able to diagnose a lack-of-governance problem and effectively act as the judge and jury ruling on whether companies are doing enough to combat the use of modern slavery within their supply chain. This intersection into governance by the private sector does not end with KTC for the Omidyars; another investment in governance was done in conjunction with Reid Hoffman (founder of LinkedIn), and the Knight Foundation and other wealthy donors helped to fund the Ethics and Governance of Artificial Intelligence Fund. Although this fund is a philanthropic donation and not an investment, it is an example of the way in which private donors are assisting in the creation of rule-making and guidance systems. Another example in the analysis of these rating systems could be observed in the relationship between the developing detection mechanisms and private industry. This private partnership in policing and detection is observable by looking at the funders for the CUMULUS system for both Verité and the ICI.

Yet there is value in examining these relationships more closely to understand the system within which algorithmic law arises (Luhmann, 1995). The interlinking of stakeholders within complexes of rating systems around but not within specific behaviour objectives (in the context of the current analysis: modern slavery) itself produces a social system that serves as the community of regulators projecting their regulatory objectives outward onto a wider receiving stakeholding community. That interconnection suggests that what may appear to be a market for algorithmic management may, in fact, be an informal oligarchy of autonomy managers who both manage and are managed by the systems they create, and which are then structurally coupled with the norm producing systems of states and public international organisations with which they remain in continuous conversation, and between which delegations of authority are constantly shifting. These interrelationships become clearer in chart form.

We emphasise that the mapping of these interconnections is not meant either as a criticism or a direct or veiled allusion to bad conduct. We view these strictly from a systems perspective in the development of structures that produce systems that can in turn produce algorithmic law. We note that their tight interconnection makes it possible to discern a stricture woven through the relationships among this group and that this interweaving might product coherence that is sufficient to develop

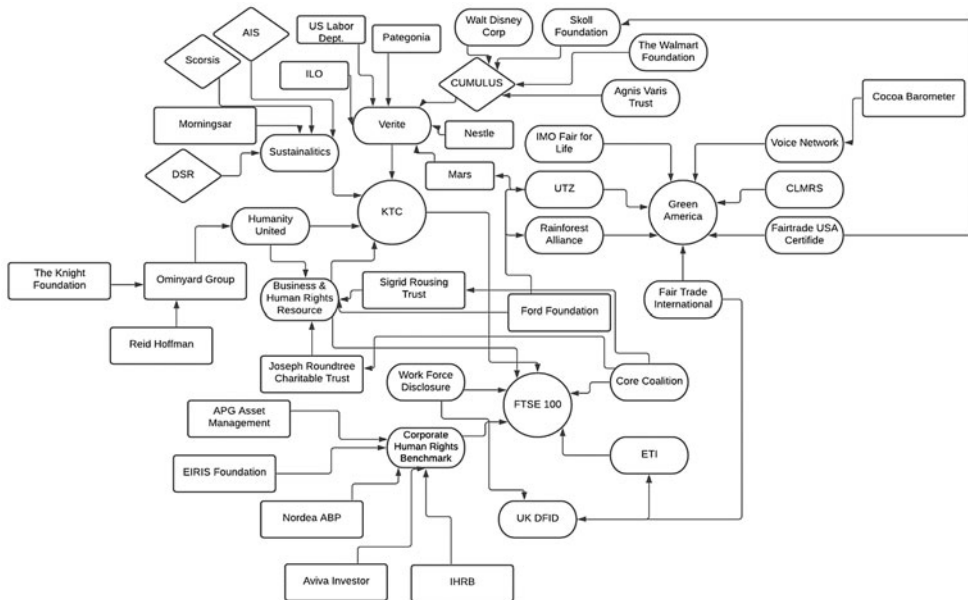


Figure 1. Institutional linkages among the ratings systems.

self-constituting features expressed, as it has so clearly, in the ratings systems that the foundations fund, that enterprises embed and that civil society advances. Yet the form of this self-constitution also suggests the character of regulatory governance – compliance-based, data-driven and grounded in the core market principle of globalised governance based on incentives and disincentives created to embody the abstract norms and objectives issuing from political bodies.

Figure 1 shows the linkages among the three ratings systems and their stakeholders, building on those relationships to see some of the entities that are associated with more than one of the rating systems that are discussed. The rating systems themselves are placed in the circles within this chart. The entities that are displayed as any other shape are considered to be in partnership with or the operator of the rating system.

KTC⁴ describes itself as having four partners associated with this project. These partners are Verité, Sustainalytics, Business and Human Rights Resource Centre, and Humanity United. Verité states that their partners and clients include ASOS, Clearbridge Investments, Eileen Fisher, Keurig, GAP, HP, NXP, Mars Inc., Nestle, Target, Patagonia, Phillip Morris International, the Walt Disney Corporation, Humanity United, the Skoll Foundation, the ILO, Leadership Group for Responsible Recruitment, Alliance to End Slavery and Trafficking, US Dept. of Labor, US Dept. of State and the International Organization for Migration (IOM). Verité runs a system, CUMULUS Forced Labour Screen, that works to identify forced labour and human trafficking risk in global supply chains. This technologically intensive entity was funded by group of funders that includes the Skoll Foundation, the Walt Disney Corporation, the Walmart Foundation and the Agnes Varis Trust. The Business and Human Rights Resource Centre has a host of foundations, governmental agencies and corporate and private donors that are listed as their partners past and present. These partners include the C&A Foundation, Ford Foundation, the Freedom Fund, Humanity United, Hispanics in

⁴Derived from <https://knowthechain.org/about-us/>; <https://www.verite.org/about/partners-clients/>; <https://www.verite.org/cumulus/>; <https://www.business-humanrights.org/en/about-us/partners-endorsements/>; <https://www.sustainalytics.com/about-us/>; <https://www.omidyargroup.com/organizations/>; <https://omidyar.com/news/knight-foundation-omidyar-network-and-linkedin-founder-reid-hoffman-create-27-million-fund-to-research-artificial-intelligence-for-the-public-interest/>.

Philanthropy (HIP), the National Endowment for Democracy (NED), the Oak Foundation, the Ruth Turner Fund, the Wallace Global Fund, the Wellspring Global Fund, Open Societies foundation, Sigrid Rausing Trust, the Joseph Rowntree Charitable Trust and many more. Sustainalytics is connected to the Morningstar Corporation and is itself the product of a merger of three others. Humanity United is a partner that seems to be connected with many of the groups associated with these rating systems. KTC is a project of Humanity United. Humanity United was founded by Pierre and Pam Omidyar through their Omidyar Group. The linkage between the Omidyar Group and both the Knight Foundation and Reid Hoffman (founder of LinkedIn) is due to their collaboration in creating a \$27 million fund to research artificial intelligence for the public interest.

The FTSE 100 rating system⁵ is operated by the Business and Human Rights Resource Centre (Business and Human Rights Resource Centre, 2018). To assist in the creation of the methodology, they use a composite criterion from external sources that include the ETI, CORE Coalition, Work Force Disclosure, KTC and the Corporate Human Rights Benchmark. The ETI collects some of its funding from the membership of businesses, while a lot of its funding comes from a grant given by the UK DFID. CORE Coalition is a coalition of foundations and a group that is part of the European Coalition for Corporate Justice. The Business and Human Rights Resource Centre is part of the CORE Coalition. Two of the main funders are the Joseph Rowntree Charitable Trust and the Sigrid Rausing Trust. They have also received a grant from Humanity United. The Work Force Disclosure Initiative was created by the group ShareAction. The Corporate Human Rights Benchmark lists its founding group as being Aviva Investors, Nordea ABP, the EIRIS Foundation, APG Asset Management, the Institute for Human Rights and Business (IHRB) and the Business and Human Rights Resource Centre. They also list KTC as being a supporter.

The Green America Chocolate Scorecard⁶ uses a host of certifications to assist in the accumulation of grades for different chocolate companies. These certifications come from Fair Trade USA Certified, Fairtrade International, UTZ, Rainforest Alliance and IMO Fair for Life. UTZ is a part of the Rainforest Alliance. It is funded by many different corporations and organisations that include Mars Inc. and the Ford Foundation. Fairtrade International has a host of partners but one that it has in common with some of the other groups is its sponsorship from the DFID. Fair Trade USA Certified has a host of partnerships that include the Rockefeller Foundation, Cordes Foundation, Mitsubishi Corporation Foundation, Keurig Green Mountain Foundation, Walton Foundation, Skoll Foundation, David & Lucille Packard Foundation and the Gordon & Betty Moore Foundation. They also have membership within the organisations of Ashoka, the Clinton Global Initiative, Aspen Network of Development Entrepreneurs, Sustainable Apparel Coalition and the Conservation Alliance for Seafood Solutions. Cocoa Barometer is used to reference for the collection of data. Green America is a part of a network coalition of organisations that work to promote sustainable cocoa harvesting. The CLMRS is often cited as being used and factored into the scores, in the same way as the certifications affected the scores. This is run by the ICI.

These interlinkages suggest that what at first glance appears to be a diverse, vibrant universe of global ratings participants is more likely a densely compacted system of mutually engaged and related entities, the felicitous and mutually advantages interactions among which produce ratings structures and practices that then interreact with the public domestic and international policy communities. Drilling deeper, one encounters greater interconnection within a tightly woven algorithmic governance universe. Consider [Figure 2](#), which shows the members on the board for the ICI who manage the CLMRS.

⁵Derived from <https://www.business-humanrights.org/en/from-us/briefings/ftse-100-the-uk-modern-slavery-act-from-disclosure-to-action/>; <https://www.ethicaltrade.org/about-eti/funding>; <https://corporate-responsibility.org/about-core/our-network/>; <https://shareaction.org/workforce-disclosure-initiative/>; <https://www.corporatebenchmark.org/who-we-are>.

⁶Derived from <https://www.greenamerica.org/end-child-labor-cocoa/chocolate-scorecard>; <https://utz.org/who-we-work-with/funders/>; <https://www.fairtradecertified.org/why-fair-trade/philanthropic-partnerships>; <https://www.fairtrade.net/about/our-partners>; <https://www.voicenetwerk.eu/>; <https://cocoainitiative.org/about-ici/our-partners/industry-members/>; <https://www.voicenetwerk.eu/>.

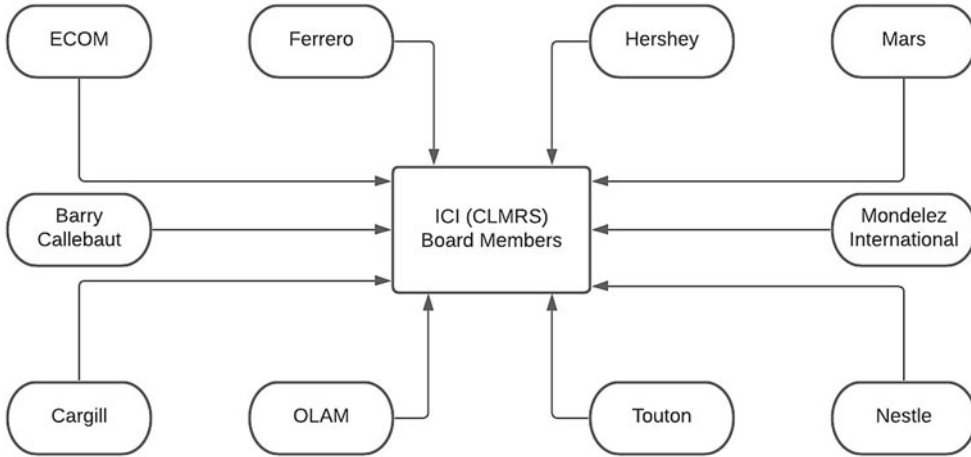


Figure 2. ICI board members managing CLMRS.

Note for example the connection between ICI and Nestle and Mars, which are also connected to Verité and KTC – connections that are better revealed in Figures 3 and 4. These connections interlink not merely enterprises and ratings institutions, but also civil society and enterprises. That is made clearer in Figure 5.

Notice here the connection between FTSE 100, Green America and the Business and Human Rights Resource Center through in part the intermediation of an enterprise and a foundation. None of this is unexpected, but it does suggest a consequence of the reality that the work of civil society is to some extent grants-driven – and enterprises, governments and foundations tend to have grant programmes designed to advance their own objectives (Rekosh, 2016). This sort of investment and involvement does not end with NGOs and the private sector; it also includes contributions from governmental agencies and international public organisations (ILO), especially in our example in the case of Verité.

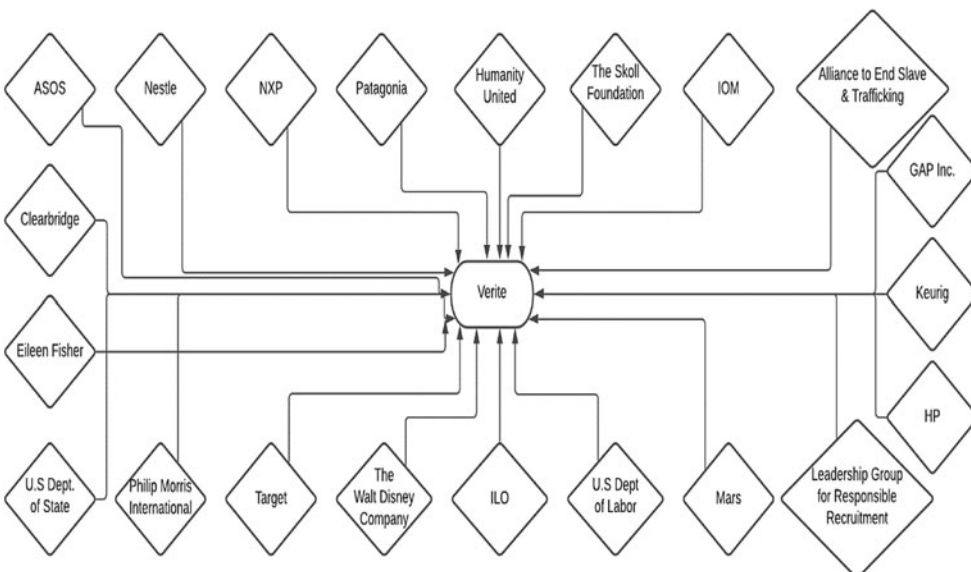


Figure 3. Verité connections.

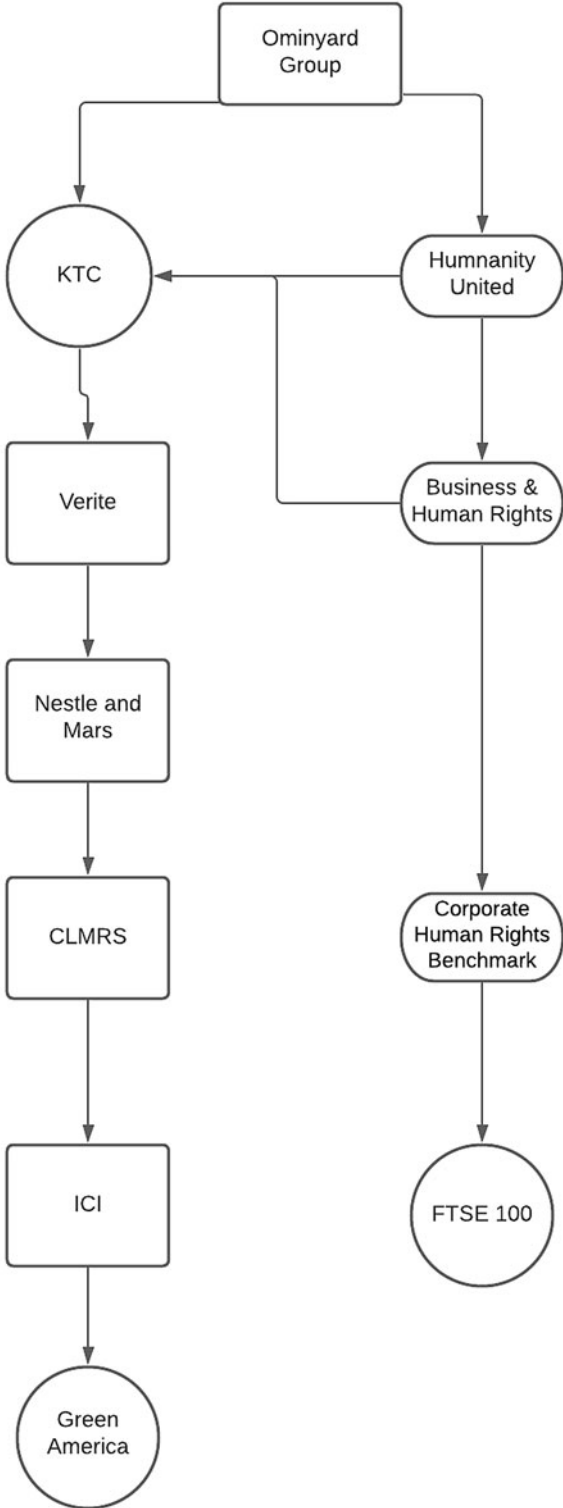


Figure 4. KTC, Green America and FTSE 100 interlinkages.

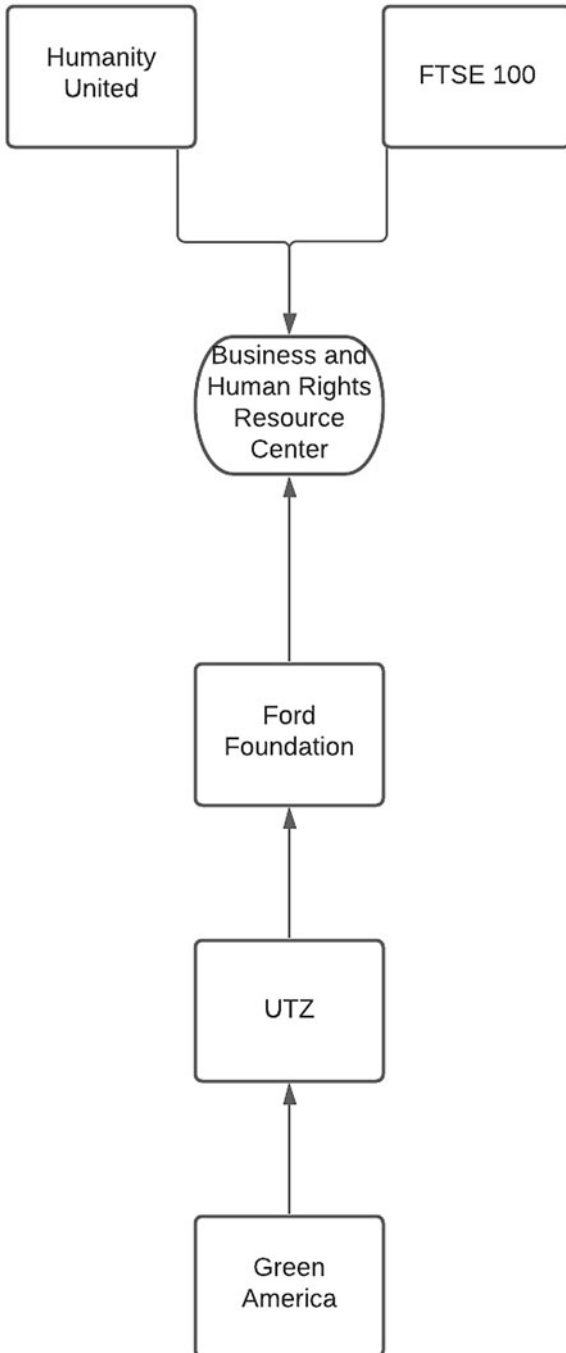


Figure 5. Connections between civil society, ratings systems and enterprises.

Figure 6 again suggests convergences within convergences in the universe of norm setting, data gathering and ratings management. It focuses on Fair Trade USA. Here, the notable interlinking is with the great global foundations, some of which also serve as the philanthropic expression of enterprise responsible business conduct.

These complex entanglements, not of legalities (Krisch, 2021), but among their stakeholders, also suggest what might be the fundamental insight of these interconnections – that these ratings systems

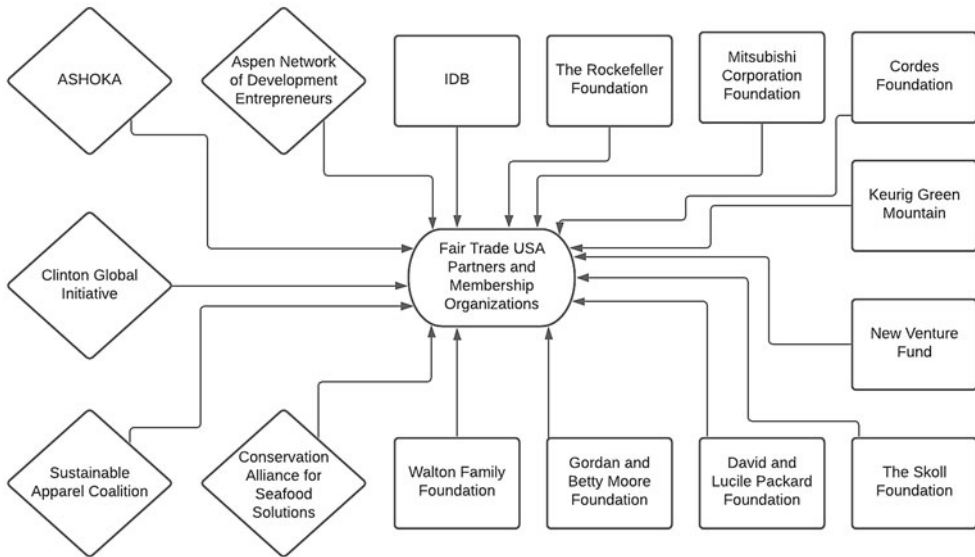


Figure 6. Trade USA and linked foundations.

themselves are to some extent self-consciously ‘reflexive feedback loops’ (Beuscart and Mellet, 2016, p. 91). Beuscart and Mellet were speaking to French restaurant rating sites, but their insight carries over nicely to the context of rating enterprises. ‘Contributors to these sites assume the codified role of evaluator and adjust their contributions accordingly. Though their participation is partly prescribed by the site, it is perceived and accepted as such, because the framing is viewed as relevant for readers’ (*ibid.*).

4 Conclusion

An algorithmic law of managing modern slavery is emerging. It combines a number of trends in law-making, data-driven governance, compliance cultures and accountability regimes with the normative framework of human rights and sustainability principles applied to those engaging in economic activities to produce the outlines of law that use a different language and employ a quite different sensibility to exact obedience from their objects. That algorithmic law emerging in the West shares many points of commonality with Marxist Leninist efforts to liberate law from its bondage to liberal democratic sensibilities and practices. In both cases, law becomes a means of expressing social and political principles and objectives in the forms of command (Amstutz, 2008). The application of those principles is no longer strictly the function of law (Backer, 2012) but is instead delegated in two respects. In the first, rule-making power is delegated from the traditional legislature to either administrative (public) bodies or enterprise (private) bodies. In the second, that delegation produces rules of application that give form to principle. It appears as administrative regulation and guidance in the public sphere and as private law and compliance systems grounded in control relationships built on contract or ownership in the private sphere (Backer, 2008b). But it also appears within the analytics of data systems that form the basis of data-driven accountability and monitoring systems.

Section 2 explored the way in which these theoretical possibilities begin to emerge in the West through an examination of ratings regimes being developed around the great objectives of meeting the challenge of modern slavery and forced labour. Here, one encountered that algorithmic systemic relationship between a constitutive character of law. Public domestic and international law provide the normative basis against which specific conduct can be measured and serves as a means of delegating that task of measurement (and movement towards compliance with the measuring norms) either to the object of regulation – the entities themselves – or to third-party organisations. What emerge

are systems of deeply interconnected entities that together develop webs of consensus in the production and operation of data-driven ratings-based governance.

The ramifications, of course, are also measured against a baseline. That baseline is the current (now traditional and conservative) set of expectations about the nature and character of civil and political rights that serve to assess the legitimacy of political and civil (societal) systems in liberal democratic orders (Fukuyama, 1992). It suggested the inevitable collisions between algorithmic law and the structures of a legal order grounded in the traditional conceptions of government (Backer, 2022b). Algorithmic law assumes its most potent characteristic as law where the responsibility for developing data-based systems of behaviour control are translated into data-based regulatory measures detached from direct state control. The determination of specific acts that constitute data points – that serve as evidence of compliance – become the means through which law (as command) assumes a new and quite exact form. There is clearly much work to be done. The rise of algorithmic law is both quite new and even more tentative. Its final form and effects on societal ordering have yet to be determined. But this study suggests importance in shaping society in the future tense (Backer, 2021).

Acknowledgements. None

Conflicts of Interest. None

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