Can artificial intelligence, RegTech and CharityTech provide effective solutions for anti-money laundering and counter-terror financing initiatives in charitable fundraising

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Can Machine Learning, as a RegTech Compliance Tool, lighten the Regulatory Burden for Charitable Organisations in the United Kingdom?

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Abstract

Purpose: Machine learning is having a major impact on Banking, Law and other organisations. The speed with which this technology is developing to undertake tasks that are complex and technical but also time consuming and that are subject to constantly changing parameters is astounding. The purpose of this article is to explore the extent to which machine learning can be used as solution to lighten the compliance and regulatory burden on charitable organisations in the United Kingdom; so that they can comply with their regulatory duties and develop a coherent and streamlined action plan in relation to technological investment.

Design/methodology/approach: The subject is approached through the analysis of data, literature, and domestic and international regulation. The first part of the article summarises the extent of current regulatory obligations faced by charities, these are then, in the second part, set against the potential technological solutions provided by machine learning as at July 2021.

Findings: It is suggested that charities can utilise machine learning as a smart technological solution to ease the regulatory burden they face in a growing and impactful sector.

Originality: The work is original because it is the first to specifically explore how machine learning as a technological advance can assist charities in meeting the regulatory compliance challenge.

Introduction

Artificial intelligence (AI) is changing the way in which organisations work. The ability of AI to automate tasks that might be considered 'tedious' generates immense benefits by creating time for strategizing and networking. AI, data analytics and machine learning (ML) have become commonplace buzzwords, their potential is being built into the fabric of organisational technology systems as innovative solutions to issues relating to compliance. In this article we explore how ML and its constituents i.e. unsupervised learning can, as a RegTech and CharityTech tool, assist charities in meeting the regulatory compliance challenge. In so doing we investigate whether ML is a trustworthy component in the arsenal of the not-for-profit charity sector.

1. Practical and Theoretical Financial Crime Issues Facing Charities in the United Kingdom

In our previous article we explored the financial crime issues facing charities[0], both practically and theoretically, and defined the organisations that are the subject of this research. Therefore, we do not propose to set that out again save in summary. Charities', in England and Wales, are regulated organisations that are formed for particular charitable purposes. In law they are purpose trusts[1] without named beneficiaries. Although they fall into the voluntary sector they are in fact distinguishable, and the sector includes many non-profit and non-

charitable organisations which can add to the complexity of issues discussed in this research. Charities fall into the sector often referred to as the 'third sector' that sits alongside the 'public' and 'private' sectors. The legal definition of charitable purpose and the description of that purpose is set out in ss.1 – 3 of the United Kingdom's Charities Act 2011. Save in short, the latter is to prevention or relief of poverty of the advancement of education or religion etcetera[2].

The legal form that charities may take includes companies[3] limited by guarantee with trustees as board members. Of particular regulatory concern are shell charities, these are shell corporations[4] or companies set up in compliance with the relevant legislation with financial assets but they conduct little or no business activity. The primary purpose of such an organisation is to function as a conduit for anonymous financial transactions. It is salient to state that whilst they are utilised for legitimate purposes i.e. asset storage for start-ups, the form is often exploited to further illegal purposes including money laundering. Shell charities often fall into this latter category[5] and therefore are a major financial crime risk. The rules relating to 'charities' must be followed regardless of the legal form such organisations take, the actions of decision makers are regulated by the rules of equity, various fiduciary duties and the duty of prudence, care and skill as set out in the Trustees Act 2000[6]. It is the role of the Charity Commission to promote transparency in the financial affairs of third sector organisations with the aim of sustaining and promoting growth and donor trust in charitable giving. The financial i.e. tax benefits[7] to achieving charitable status is a matter beyond the scope of this article but may present problems relating to fraud in its own regard for the exchequer. In 2021, there were over 169,779 charities registered in the England and Wales, or 212,063 operating in the United Kingdom with 19,731 operating overseas as at 2018 per the FATF Mutual Evaluations report[8]. These figures pose a significant compliance challenge both for the authorities and the charities themselves.

2. Machine Learning and the Regulatory Risk and Compliance Function

Not-for-profit fundraising is a human endeavour worthy of praise. The traditional methods used to generate funds[9] are; grants, networking and donor dinners and direct giving from corporate foundations. The more run-of-the-mill meetings in coffee shops are supplemented to fund the change-the-world initiatives. AI has proven benefits of achieving low human resource costs whilst maintaining high-levels of relationship-building and outreach activity. In short, AI, of which ML is a constituent technology, allows a machine or series of machines to act, comprehend, learn and sense just like humans would. Unsupervised learning (UL), also a constituent or AI, is a form of ML in which the system is trained to identify patterns in datasets where the 'right answer' may not be apparent because it is difficult to determine perhaps due to the sheer quantity of data that needs processing. UL can create outputs by clustering data together based on perceived patterns. In addition to UL, other forms of ML include supervised learning (SL) and semi-supervised learning (SSL), the differences centre around, amongst other things, the level of human or expert intervention required. Thus, ML is transformative to say the least and the relationship between people and machines has changed at a phenomenal rate. ML harnesses human ingenuity but does so with alarming precision and speed. For example AI outperformed humans, and some of the best lawyers, in the completion of various legal functions[10].

Like many companies of commensurate size, charities, have large compliance and legal departments. AI benefits the legal function in terms of the quality of the information that is received by compliance officers and lawyers, but also by the speed[11] at which it can be

reviewed by them, leading to mitigation of regulatory risk and exponential costs savings. There are some significant downsides, for instance, technology is grappling with is bias because it is educated by human subjects through data entry and confirmation. There are serious questions relating to the competency of the 'educators' from which the technology learns, issues relate to unconscious and subjective biases i.e. gender, racial or ideological biases, the production of biased data without due regard and assessment of its origins, a lack of critical thinking and trust[12] in decision-making. There are two diametrically opposed schools of thought in relation to this; at one end of the spectrum many argue the risk is too great and at the other that the benefits outweigh the issues because they can be rectified in due course. IBM suggests that bias in AI occurs in the data or algorithmic models that are used[13]. In addition, AI poses risk and ethical issues in the compliance and lawyering functions but automated settlement of disputes or 'digital dispute resolution' can benefit charitable organisations in terms of legal risk mitigation and notable costs savings[14]. The discussion on data analytics[15] (DA) will not be repeated in this article, the basic thrust of which is to use technology as a disruptor by changing the way in which information works to promote richer higher-level collaboration amongst stakeholders. The benefits[16] include novel ways in which to manage the legal and regulatory risk[17] charities face.

3. Financial Crime Risk: Cybercrime, Anti-Money Laundering (AML), Counter-Terror Finance (CTF) and Fraud

In England and Wales charitable spending totalled circa £80Bn [18], this could rise to £146Bn by 2030[19]. Cybercrime, anti-money laundering, counter-terror finance and fraud are all matters that affect charities (GCHQ, 2020)[20]. The pervasion of technology has led to an increase in faceless crimes that are carried out by organised crime groups (Reichel, 2019)[21]. Globally financial crime has increased, Price Waterhouse Cooper's Global Economic Crime and Fraud Survey (2020) revealed losses in the firms they work with across 99 territories to the value of $42Bn[22]. The United Kingdom's regulator, the Financial Conduct Authority (FCA), suggests that the serious and organised crime that money laundering facilitates has cost the United Kingdom £37Bn every year, and the annual cost of fraud is estimated to be around £190Bn every year[23].

The financial crime statistical analysis[24] is published annually by the FCA but has been delayed due to the coronavirus pandemic. In 2019 – 20, there were 573,085 suspicious activity reports made to the UK Financial Intelligence Unit (UKFIU), an increase from 458,468 (twenty-percent) in 2018 – 2019[25]. A total of 923,000 suspicious activity reports made by automated systems and employees to the Money Laundering Reporting Officers' (MLRO) within those regulated financial firms within the United Kingdom, and after investigation 363,000 of these cases were reported to the National Crime Agency for further action, and it is salient to note that 2100 of these were terrorism-related[26] suspicious activity reports. The human hours taken by employing people to check those checking is significant and any reduction in this that technology, more specifically ML, can bring is clearly advantageous.

The Serious and Organised Crime Agency (SOCA) identified some of the more notable instances exposing charities to financial crime; fictional or fake payments, donations by mystery donors and loans with requirements or conditions precedent, all as a means by which to launder money or fund organised crime and terror related activities.

4. The Charities Commission for England and Wales and Challenges Posed by Economic and Financial Crime

4.1.   The Charities Commission for England and Wales

The regulator and supervisor of charities in the United Kingdom is the Charity Commission in England and Wales[27]. It issues guidance on regulatory compliance but also has the power to investigate charities for abuses. The Commission, like the Financial Conduct Authority and Prudential Regulatory Authority in the United Kingdom, aims to strike a balance between being effectiveness and overregulation, innovation and efficiency. Thus, it sees its function as; raising awareness, overseeing, supervising, co-operating and only intervening where necessary[28]. Chapter 1 Module 8, of the Compliance Toolkit requires the trustees of the charity to:

- Comply with the law;
- Act within the charity's interest, avoid it being exposed to undue risk and its assets are used only for its charitable purposes. In so doing, the trustees must:

    o Take reasonable steps to ensure its premises, assets, employees (etc.) cannot be used for activities that may, or appear to, support or condone terrorism or terrorist activities;
    o Put in place and implement effective procedures that prevent terror organisations taking advantage of the charity's assets, facilities, reputation or status;
    o Take immediate action to disassociate the charity from activity outline in point 1 above;
    o Take all reasonable steps to ensure that the activities of the charity are transparent and open, and cannot be misinterpreted;
    o Safeguard the charity's assets;
    o Ensure that proper control is exercised over financial affairs;
    o Concerns about a charity's links with terrorism should be reported by any stakeholder i.e. beneficiary, employee or trustee[29].

4.2.   Best Practice Governance and Machine-Executable and Compliance Toolkit

The legal duties of charities are set out in the Charities Act 1992, Charitable Institutions (Fund-Raising) Regulations 1994 and the Charities Act 2006 and now the Charities Act 2011. Charities can prevent themselves from being targeted by criminals and abuse by implementing proper governance and management procedures with effective financial controls. For example adopting best practices in relation to 'Due Diligence' (DD) and 'Know Your Customer' (KYC) for each transaction, these principles are based on the legal duties of trustees designed to protect charity assets and are known as the 'Know Your' principles[30]. Charities are required, by financial institutions, to mitigate the risk of financial crime through DD procedures. These can require a greater level of due diligence, with risk-based processes relating to affiliated organisations and beneficiaries, donors, employees, partners, suppliers and all volunteers. This should form part of the organisational financial crime policy which the trustees of the charity would agree. The problems are exaggerated where charities deal with 'Politically Exposed Persons' (PEPs) or where they operate in countries that are subject to international sanctions such as Belarus, or those that are considered to be high risk from exploitation by terrorists[31]. Charities, like other organisations, struggle with regulatory compliance because they still use paper-based systems, that coupled with human intervention which is prone to fatigue and forgetfulness, sloppiness and error due to time pressures makes compliance breaches ever more

likely. Increases in regulation, requirements for continuous updating and symptomatic rises in compliance cost in the form of fines, disruption in business continuity and the loss of productivity[32] all add to the problem. Whilst this may sound like a time consuming and expensive undertaking given the human resource required, it is exactly the challenge that machine learning and machine readable regulatory and/or policy documentation attempts to resolve.

The Charities Commission's Compliance Toolkit[33] seeks to help charities verify the end use of charitable funds, it states that '… ensuring proper internal and financial controls and risk management procedures are in place and implemented is vital'[34] but it is deficient in relation to 'how' to achieve that given it does not set out adequate solutions, technological or otherwise in this regard. Thus, the toolkit takes charities no father forward in resolving the plethora of compliance issues they face. In addition, there are still grey areas on rule application and reporting[35]. The failure of charities to engage with AI results in non-implementation of AI systems for compliance, the result is to impede the creation of modern tool-kits that could enhance regulatory compliance and reduce costs. Charities are simply not using AI, machine learning or otherwise, to automate the compliance function[36]. The guide is not machine-executable which, the now quite sophisticated, internal AI compliance systems could autonomously engage with to update systems and processes without the need for human intervention. This stands in direct contrast to the developments in relation to compliance reporting in the financial services sector[37]. Perhaps, given the trajectory of the compliance function charities will eventually be forced to automate more[38]. The creation of a machine-executable tool-kit would be a relatively easy task, the investment in an AI system is probably the greater hurdle, the long-term benefits significantly outweigh this cost. One solution to this would be, with government policy, to promote stronger collaboration between civil society and the technology sector which would allow the risk of innovating to be shared. Whilst charities have engaged with AI utilities such as 'chatbots' and language translation i.e. for refugees and migrants, many still lack digital strategies and unlike the more proactive FCA and PRA, the Charities Commission has failed to engage with the development of technology that could help resolve the many compliance issues that face the organisations it regulates. Research by the Charities Commission for England and Wales in 2017[39] found that the average age of charity trustees was 55 – 65, this was increased to 65 – 75 for the smaller organisations, this could be one of the challenges that needs to be overcome through diversification of the pool of trustees to also include representation by those in the 18 – 55 categories. These factors are important as they provide anecdotal evidence on the shape of the sector in the short-term future.

4.3.   Economic and Financial Crime

According to the Organisation for Economic Co-operation and Development (OECD) economic and financial crime poses a major obstacle to development[40] because of the loss of valuable resources through criminal activity. This has a particularly negative impact on fragile countries that are often the net beneficiaries of charitable funds because money that should be used to rebuild public services i.e. education, health and justice are diverted.

4.4.   Specific Regulatory Compliance Challenges

Charitable organisations are attractive to criminals because they have traditionally been seen to exist outside the regulatory gaze, or subject to light-touch regulation in comparison to other forms of company. The application of the law to charities firmly challenges this notion. FATF Recommendation 8 states that, 'Combatting Abuse of Non-Profit Organisations', is a good

example of this[41]. Therefore, charities are coming more into the regulatory gaze domestically and internationally regardless of their size[42]; a simple perusal of the increasing financial sanctions regimes are an example. Furthermore, charities must comply with the non-binding rules, these are not law, as set out in the Charities Commission's Governance Code (2017)[43], is known as 'good governance' this adopts the 'comply of explain' approach taken by the UK Corporate Governance Code[44].

The most common challenges for charities include;

- Continually assessing the terror finance risk posed by countries on embargo or sanctions lists[45];
- Keeping up-to-date with the U.K. Foreign and Commonwealth Office (FCO), Transparency International[46], FATF and the World Bank information on regimes without adequate legal frameworks to deal with counter-terror finance and money laundering;
- Keeping up-to-date with regions that are considered to be notorious terrorism hotspots or that have high levels of criminality and corruption[47];
- Keeping up-to-date with areas that are sparsely populated with poor infrastructure or those with internal strife (civil war or conflict, militia) or military warfare[48].

Therefore, charities must have a systems and processes by which they can assess the risk taking into account the stability of the political environment, local and customary law, culture, infrastructure to enforce legal rights and protection, the economic structure, the levels of predicate criminality, governmental controls, the reliability of the service sector, the size and maturity of the capital market and/or financial services sector, the market and institutions within it, the size of the 'shadow' market/economy, and the level of illicit trade.

Other law that charities must comply with includes; the Companies Act 2006, Bribery Act 2010 and the raft of anti-terror legislation i.e. Terrorism Act 2000. The European Commission sets out in its whitepaper titled 'Artificial Intelligence - a European approach to excellence and trust' a proposed regulatory framework for AI that focusses on development, speed and the human and ethical implications of its use i.e. bias (Long and Agyekum, 2020). In July 2020 the Information Commissioner Officer's (ICO) published guidance on best practice in data protection-compliant AI.

Charities must create an extensive Financial Crime Policy (FCP) that covers this legislation, in addition to having an appropriate level of operational risk assessments, training for stakeholders (trustees, employees and volunteers), with an adequate alerts system to mitigate risk, suspicious activity reporting, and scrutiny and review to 'learn' from. The FCP must be regularly updated to account for changes for example in terror designation or lifting of sanctions, all of which can be automated using AI.

5. AI Machine Learning: Supervised, Unsupervised and Semi-supervised Learning

In this part of the research we focus on the use of technology to resolve the compliance issues identified earlier.

AI, or artificial intelligence, refers to the technology that enables machines to simulate human behaviour in relation to data, course intelligence, knowledge and of course understanding. It is therefore the 'centre' or 'brain', for example, in a robot. AI is smart like human beings and is

able to solve the most complex of problems. Machine learning (ML) is a subset of AI (Bostrom, 2014), it allows the 'machine' to learn from past data without specific programming. Supervised learning (SL), also known as supervised machine learning, is a subset of AI and ML that can facilitate the production of highly sophisticated and accurate ML models. SL uses labelled datasets that train algorithms to classify and/or predict accurate outcomes. In short, the model is fed input data by experts and the weight of that data, as part of a cross-validation process, is adjusted until it fits the model. The benefit of SL is that it allows organisations solve real-world problems accurately, at speed and at an unprecedented scale. An example is Google Mail which uses ML to classify spam (etcetera) into a separate folder in email[49] and to compose smart replies to the message.

SL teaches the model to yield the required outcome by using training datasets that contain the requisite inputs and the correct outputs. This allows the model to continually learn over a period of time, algorithmic accuracy is measured via a loss function, this adjusts the model until relevant errors have been mitigated. SL can be separated into 'classification' and 'regression' for data mining purposes. The former, algorithmically, assigns test data into various categories, recognising factors within the dataset from which it draws conclusions in relation to definition and/or labelling. Such algorithms, or linear classifiers, consist of decision trees, vector machines and random forest etcetera. Regression, for example the polynomial or logistical regression algorithm, is used to understand relationships between independent and dependent factors, this is used to make projections. SL is widely used for image or object recognition, predictive analytics and customer sentiment analysis. SL, whilst being able to provide deep data insights and automation that is improved, is prone to human error which can lead to the algorithms learning incorrectly and therefore creating incorrect outcomes.

In contrast, unsupervised learning (USL) uses datasets that are not labelled, the model then enters a process of discovery in that it searches for hidden patterns in data, without human intervention, that can solve association, dimensionality or cluster reduction problems. This type of ML is useful when common properties within datasets are unknown, the three tasks are defined as;

- Association
- Clustering
- Dimensionality Reduction

Association uses different rules to discover relationships between the factors within a dataset, these are used by companies such as Amazon, Apple and Netflix in recommendation engines to make suggestions to customers i.e. 'customers who watched this also watched' or 'also bought'. The most common cluster algorithms are Gaussian mixture, hierarchical and k-means models. Clustering is a technique used in data mining to group unlabelled data on the basis of difference or similarity, often used for market segmentation. Dimensionality reduction for complex datasets where there are too many dimensions, the technique reduces data inputs to a more manageable size whilst quality assuring the data (preserving integrity). This is commonly used in pre-processing data for example to clean visual data and improve its quality. USL is not completely free from human-intervention; output variables may still require validation by the end user. For example, whilst the model may learn that shoppers are more likely to buy groups of products at the same time, what is included in that group may require validation by a data analyst. However, this is still likely to be less time consuming and cheaper than its SL equivalent, and USL can handle large amounts of complex data with relative ease (Arner et al,

2016). Furthermore, in contrast to SL, USL is less time consuming and therefore less costly because it does not require domain expertise to label the dataset.

Semi-supervised learning (SSL) is a mixture of SL and USL. In this instance the dataset is labelled and unlabelled, the technique is appropriate for high volumes of data and data from which relevant features are difficult to extract. This method is used in medicine to determine urgency of treatment. One of the issues with these types of ML is that solutions can often lag behind the ability of charities to reorganise internal data. Furthermore, a system would need to deal with different systems, and common but informal knowledge that does not form a recorded data type. In addition, the appropriateness of the solution would need to be kept under review. That said, ML has can deliver real-time monitoring and regulatory compliance solutions, but the requirement for the machine to hand over control, and the need, for human intervention may be greater than envisaged to begin with.

Where charities are concerned, given the nature and volume of the data, it is suggested that a combined supervised and unsupervised approach be taken in the short-term, with a long-term view to moving towards an unsupervised approach not just for regulatory compliance but also for protection against financial crime. Therefore, institutional reviews would be required to determine the following:

- Define the recurring functions that need to be undertaken i.e. identifying suspicious activity, reporting and regulatory compliance, risk mitigation, KYC, training and developing staff and reducing reliance on human resource;
- Data volume, how much data needs to be processed;
- Input data structure and evaluation, whether data should be labelled (tagged so that it can be operationalised) or unlabelled with a human resource requirement in support;
- Data quality, what can the machine learn from past data; and
- Do existing algorithms provide coverage of the various dimensions and can they support the volume and level of data processing required.

Charity regulators currently share information by memorandum of understanding including the Charity Commission, Gambling Commission and Information Commissioners Office. Having effective systems that can communicate digital data with one another would make this process more timely, effective and in the long-term have cost benefits. The potential is to enable change and monitoring in real-time i.e. contemporaneously and promote proportionate regulatory regimes that address current data, security and regulatory risk rather than overburden the organisation taking it away from its primary activity.

6. The ML Solution

The FCA introduced its 'Regulatory Sandbox' in 2015, the aim was to promote the use of technology to resolve both technical and complex regulatory compliance problems like FinTech revolutionised finance[50]. The finance industry has been promoting, using natural language processing, regulatory documentation that is machine readable and interpretable.

ML cuts across markets and specialisms including finance, insurance, law and banking bringing about cost savings, regulatory compliance and mitigating risk for charities. Costs is a particularly contentious matter where charities are concerned, on average the top 10 UK charities spend circa £225M on operating costs alone[51]. The reductions that can be made relate to, amongst other costs, human resource, travel expense, office space and marketing.

Such reductions would seek to improve donor confidence and revenue generation because ML can run 24/7 for internal stakeholders and donors.

Charities can also use ML as a measure to prevent becoming the victims of financial crime through the promotion of automated governance procedures and adoption of the Charity Commissions Governance Code alongside proper financial controls. This would require consistent audits, review and training of staff (Wilson et al, 2017), and a proper risk-centred strategy in relation to Customer Due Diligence (CDD), Know Your Principles (KYP) and Know Your Customer (KYC). So that the sources of funding and identity of eventual beneficiaries is determined. This also applies to proscribed organisations; therefore constant updating and ability to identify and mitigate risk, share information is also a prerequisite to an effectively functioning system.

UK charities that operate abroad must ensure that they comply with domestic (U.K.) law in addition to the law of the land in which they are located. Additionally, they must be careful not to breach sanctions regimes or embargoes. This all poses regulatory compliance risk because legal frameworks and laws differ across the globe and therefore a series of models would be required. Any system that is put in place would need to take account of terrorist activity, civil disorder and have the ability to communicate with other data sources to flag up hotspots affecting compliance but the operation at large. This requires real-time updating and feeding in huge quantities of data from a multitude of sources for example Financial Conduct Authority, The Charity Commission, FATF, Transparency International, World Bank and Commonwealth Office (FCO).

The charity's people, process and policy need to be able to spot suspicious transactions, identifying patterns of behaviour from huge quantities of often complex and non-conventional data. Issuing a suspicious activity report (SAR) is labour intensive and costly. Breaches affect reputation, trust and confidence, this will inevitably affect fundraising. Legal remedies against charities exist for example breach of trust, but these do not necessarily promote better compliance[52]. Charities are required to secure their data from criminality that is digital[53] and provisions in the Companies Act 2006 are particularly onerous in that regard.

In addition, the charity must have an extensive and up-to-date Financial Crime Policy, this is something that many charities do not adequately engage with if at all. These are issues with which ML can easily assist.

7. Advancing ML as a Solution

The first step is for charities to accept that fact that they will need to build their own network if they are to combat criminality by sharing information, this can be achieved through privacy enhancing technologies (PETs) that could facilitate data sharing between the charity, regulators and law enforcement through nascent technologies such as homomorphic encryption[54].

The FCA Regulatory Sandbox has made some headway into digital identity by securing information held by organisation. ML avoids the need for a manual security check whilst allowing the identity of the person transacting to be determined. In order for charities to promote something similar they would have to adopt an open-banking equivalent model which facilitates approved sharing of some secured information via an application programming interface (API). This could in fact be partly facilitated by cooperation with the banking industry.

Federated systems have the benefit of updating in real-time, where charities are concerned beneficial ownership, grant tracking, identification sharing all of which help tackle financial crime. The system can ensure that flags are automatically identified and raised where 'high risk' donations or patterns of activity are identified that allow automated CDD or KYC to be carried out.

Charities need to deal with, amongst other things, the following issues;

- Updating out-of-date or stale information;
- Errors that are human led;
- Creating fully centralised CDD and KYC databases;
- SAR reporting inconsistencies;
- Inadequate monitoring i.e. reports and analysis;
- Misallocation of resources from false positive risk analysis;
- Training and development of stakeholders i.e. staff and volunteers;
- Triangulation and rectification of data that is poor quality;
- Data fragmentation and its impact on decision making;
- Continually rising costs of manual CDD and KYC;
- Standard and process level inconsistency that violates regulatory compliance;
- Duplicity of process; and
- System fragmentation causing failure of system interaction.

ML, as a strategic approach, can be utilised with the necessary investment for;

- Automation of information centric processes reducing manual data processing;
- E-CDD and e-KYC;
- Databases that share CDD and KYC information;
- Audit, track and trace, identify and report;
- Determine beneficial ownership (link analysis);
- Interact with stakeholders; and
- Data analysis via linguistics.

The regulatory compliance landscape has changed, compliance, ethics and infrastructurally – this is the heart of AML and CTF initiatives and for retraining an organisation to for a modern technological approach to governance, control and risk management.

8. Conclusion

Charities are still to harness the progress made by technology in the RegTech revolution. The sector has an opportunity to resolve some of its biggest issues by using ML i.e. SSML, be that in statistical modelling, rapid automation, real-time data aggregation platforms or voice and image analytics, or risk assessments carried out through ML itself. The sector lacks digital and technological transformation initiatives, advances that are outperforming humans more and more sophisticatedly as time progresses. Globally, this is beneficial given the size of the charity sector across the world, and the fact that AML and CTF are often international. ML can assist charities in operational cost cutting, promote regulatory compliance and trust and confidence. The shift to look forward towards sustainable technological approaches is yet to occur. Instead of expanding human resource, analytical tools, and automation (surgical) can assist charities to surpass the hurdles set out, reduce risk, and successfully fight financial crime.

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Endnotes

[0] C. Singh, W. Lin and Z. Ye. (2020). Can Artificial Intelligence, RegTech and CharityTech provide Effective Solutions for Anti-money Laundering and Counter-terror Financing Initiatives in Charitable Fundraising. Journal of Money Laundering Control, Emerald. https://doi.org/10.1108/JMLC-09-2020-0100.

[1] Charitable purpose trusts are public trusts set up to provide benefits to the public and are regulated by the Charity Commission. See; P. S. Davies, G. Virgo, and E. H. Burn. *Equity and Trusts: Text, Cases and Materials*. (Oxford University Press, 2016 at Ch.5, pp.175 – 6).

[2] Section 3 provides 13 descriptions of charitable purposes therefore this in-text reference is not exhaustive, see; *Commissioners for Special Purposes of Income Tax v Pemsel* [1891] AC 531, the Recreational Charities Act 1958 and the Charities Acts 1992, 1993 and 2006, as a background to whence the current form of the law came. Charities Act 2011, Chapter 25. HMSO: UK. Available at: http://www.legislation.gov.uk/ukpga/2011/25. [Accessed 13 May 2021]. See also: H. Picarda QC. *Law and Practice Relating to Charities*. (4th Ed., Bloomsbury Professional, 2010). Note the edition has been updated, the First Supplement to the 4th Ed. covers the 2011 statute, Part I at pp.3 – 45.

[3] Companies Act 2006 also applies to charities; compliance with dual regulatory regime required. Sections 171 – 177 of the 2006 Act apply to directors of incorporated charitable companies. Unincorporated charities attract contractual liability in addition to liability for breach of the purpose trust. Under the Insolvency Act 1986 trustees are personally liable for wrongful or fraudulent trading. It should be noted that s.191 of the Charities Act 2011 allows the Charity Commission to absolve the trustee from whole or partial liability where he/she has acted in a manner that was honest and reasonable.

[4] Set up in tax havens often to hide the identity of beneficial ownership, the form allows them to engage in financial transactions, buy and sell property and own copyrights as well as the collection of royalties. See; A. Ottavi. *Shell Corporations and Beneficial Owners. Current Criticalities and Future Developments from a Multilevel Perspective*. Bus. (2019) L.R. 40(3), 116-123. Also below: Barr, W. at note 28.

[5] Kingston, K. G. *Concealment of Illegally Obtained Assets in Nigeria: Revisiting the Role of the Churches in Money Laundering*. A.J.I.C.L. (2020) 28(1), 106-121. Demonstrates the common problem facing the excepted charity sector i.e. religious places of worship where the turnover is less than £100,000 per annum, such organisations must still comply with the law.

[6] See *above*, note 3.

[7] In the financial year 2019 – 2020 tax relief for charities in the United Kingdom totalled £4.03Bn, this was up from £3.9Bn in the financial year 2018 – 19. Individual tax relief for the same period totalled £1.65Bn. Gov.UK. (2021). HMRC Annual Statistics: UK Charities Tax

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[25] National Crime Agency. (2020). UK Financial Intelligence Unit: Suspicious Activity Reports Annual Report 2020. Available at: https://nationalcrimeagency.gov.uk/who-we-are/publications/480-sars-annual-report-2020/file. [Accessed 12 May 2021].

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[27] The Commission is funded by the UK government and like Companies House, undertakes the registration process and maintains the register and can also deregister (close down) a charity. Note; charitable trusts are enforced in the name of the Crown by the Attorney General.

[28] The Charity Commission's approach is set out in detail in its Compliance toolkit, Chapter 1 Module 2 at p.1. Also see supra, note 29.

[29] K. Raymond Choo. *Politically exposed persons (PEPs): risks and mitigation*. Journal of Money Laundering Control, 2008 Vol. 11 No. 4, pp. 371-387. See: UK national risk assessment of money laundering and terrorist financing. HM Treasury and Home Office. 2017. UK: HMSO. Also: Directives (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018. Official Journal of the European Union, June 19, 2018.

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[32] Lack of published statistical data by charities means that evidence can be extrapolated by drawing comparison with financial services because of the parallels in regulatory compliance reporting requirements. See: S. English, and S. Hammond. *Cost of Compliance*. 2018. UK: Thomson Reuters.

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[34] Charities Commissions Compliance Toolkit, chapter 2 at p.7.

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[36] Above note 36. Charities engage with AI from an information perspective, but a wide gap exists between the current paper-based regulatory compliance and any future use of AI.

[37] Model driven machine executable regulatory reporting TechSprint. FRC, November 20, 2017. https://www.fca.org.uk/events/techsprints/model-driven-machine-executable-regulatory-reporting-techsprint. [Online]. [Accessed 22 June 2021].

[38] These are acronyms referring to the automation of the regulatory compliance and other functions i.e. digital trading or resolution and legal disputes etc.

[39] The Charity Commission's research findings in relation the age demographic of trustees is set out in Taken on Trust: The awareness and effectiveness of charity trustees in England and Wales. November 2017, at p.18.

[40] Organisation for Economic Co-operation and Development (OECD). (2020). Economic and Financial Crime - OECD. [ONLINE] Available at: https://www.oecd.org/dac/accountable-effective-institutions/efc.htm. [Accessed 12 May 2021].

[41] There is an exaggerated regulatory compliance issue for new, small or inexperienced charities run by fewer individuals; excessive pressure often leads to serious failures.

[42] The text of the recommendation highlights the potential for abuse and the need for regulation of the Third Sector; 'Past and ongoing abuse of the NPO sector by terrorists and terrorist organisations requires countries to adopt measures both: (i) to protect the sector against such abuse, and (ii) to identify and take effective action against those NPOs that either are exploited by, or actively support, terrorists or terrorist organisations.' FATF. (2015). Best Practices Paper on Combating the Abuse of Non-Profit Organisations (Recommendation 8). In addition, charities (and NPOs) should 'adopt methods of best practice with respect to financial accounting, verification of program specifics, and development and documentation of administrative, and other forms of control … use formal financial systems to transfer funds and perform due diligence and auditing functions of partners and field and overseas operations respectively.' Available at: https://www.fatf-gafi.org/publications/fatfrecommendations/documents/bpp-combating-abuse-npo.html. [Accessed 23 April 2020]. See also: Security Council Resolution 1373 (UNSCR 1373).

[43] Consultation for revision of this version of the Code was completed in 2019. Non-legally binding codes are called 'soft' law.

[44] The latest version of the Code, 2018, is published by the Financial Reporting Council seeks to promote 'a corporate culture that is aligned with the … purpose … strategy … promotes integrity and values diversity.' FRC. (2018). UK Corporate Governance Code. Available at: https://www.frc.org.uk/directors/corporate-governance-and-stewardship/uk-corporate-governance-code. [Accessed 23 May 2021].

[45] R. Gordon, M. Smythe and T. Cornell. *Sanctions Law*. Hart Publishing 2019. Also: M. Happold and P. Eden. *Economic Sanctions and International Law (Studies in International Law)*. Bloomsbury 2019.

[46] Transparency International seek to stop the abuse of power, bribery and secret deals trying to ensure that governments act in the public interest and are not influenced by criminal, financial or other more vested interests. They create a 'Corruption Perceptions Index', the latest 2019 highlight corruption hotspots; greater risk for abuse.

[47] FATF. Jurisdictions under Increased Monitoring - February 2021. Available at: http://www.fatf-gafi.org/publications/high-risk-and-other-monitored-jurisdictions/documents/increased-monitoring-february-2021.html. [Accessed 23 May 2021].

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[51] The Charities Commission annual charity accounts provide a full breakdown; further discussion is beyond the scope of this article.

[52] Charities (Protection and Social Investment) Act 2016 extends a range of criminal offences to charities.

[53] Extensive discussion on this matter is beyond the scope of this research.

[54] Homomorphic encryption performs calculations on encrypted information, the difference is that it does not decrypt it first. This makes cloud computing more secure.

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