# THE IMPACT OF COVID-19 ON THE JUSTICE SECTOR

# 1. EXECUTIVE SUMMARY

The Justice sector, like all other industries, has been severely affected by the COVID-19 pandemic. This has seen governments around the world trying to respond quickly to the challenges presented by the pandemic and putting in place social distancing restrictions. Various mitigation measures and strategies that have resulted in the closure of judiciaries and other key legal institutions involved in the dispensation of justice have been put in place.

Some of these measures include; the suspension of all sitting courts except those that are dealing with urgent matters, the prohibition of all foreign travel for justice institutions and the banning of justice related conferences, workshops, and trainings, unless carried out online. This has created significant challenges for the justice system in Africa and significantly accelerated the uptake of technology in the administration of justice.

These measures have also negatively impacted a host of human rights. Among them have been the freedom of movement, right to life and a livelihood, access to healthcare, access to justice and the right to privacy. The right to education has also been adversely affected, which has severely hindered legal education for a vast majority of institutions in the region and forced those that can to switch to a digital means of learning.

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This report shall provide an overview of how the pandemic has impacted the justice sector and how the adoption of digital technologies is being used as a means of mitigating the arising challenges. It shall look at these challenges through a human rights perspective, while suggesting corresponding recommendations for the same that rely on inclusive tech-policy and the digitalisation of the justice sector.

# 2. INTRODUCTION

The COVID-19 pandemic has had a significant impact on the justice sector in Africa. The legal industry has historically been slow on the uptake of technology. <sup>1</sup> However, the measures introduced to curb the spread of the coronavirus disease (COVID-19) have effectively shifted legal practice and the administration of justice to an online space.

The measures have seen legal and justice institutions alter their mode of operation to one that fits the demands of the digital world. The use of legal technology and tech-facilitated justice has been widely adopted in the continent. <sup>2</sup> The most prominent of these being the adoption of digital systems for legal practice and virtual courts. This has played a critical role in ensuring that access to justice is not impeded in the process of preventing the spread of the virus. However, these changes and emerging opportunities have come with their unique sets of practical and legislative challenges. <sup>3</sup>

Other than law firms and judiciaries, civil society organisations involved in the justice sector have been affected. The restrictions placed upon the populace, as well as the halting of the ordinary functioning of judicial services have presented a formidable barrier to the continuation of their operations. This has however not halted their work. Through the use of technology and initiatives centred on advocacy, they have been able to continue with the delivery of services.

The current on-goings have also impacted the field of legal education, not only in its digital transition, but on a substantive level as well. <sup>4</sup>Moving forward, it is widely expected that the legal education sector and judicial professionals will adopt a tech-friendly approach in their instructional design. Ultimately, it will become evident that the pandemic, along with the unique opportunities and challenges brought by it, will have accelerated the evolution of a sector that was overdue for a shift in perspective. <sup>5</sup>

# 3. ANALYSING THE IMPACT OF COVID-19 ON HUMAN RIGHTS

The pandemic has brought with it multiple human rights implications. While the right to life has been directly impacted by COVID-19, the rest of the rights discussed in this section have been impacted indirectly. 6 The battle to contain the spread of the virus and the consequent measures have been, from a humanitarian standpoint, a balancing act based on the primacy of various human rights and the right to life, as the fundamental human right without which no other can exist, has taken precedence. The section below will briefly discuss the human rights consequences that have been borne as a result of this.

# 3.1 The Right to Life, Livelihood and a Reasonable Standard of Living

As earlier mentioned, the right to life has been affected directly by the virus. COVID-19 has been responsible for over 1.4 million deaths globally. <sup>7</sup> Various states have grappled with the highly infectious nature of the various, mainly due to their infrastructural incapacity to deal with the virus.

It is arguable though, that the indirect effects, mostly of a socio-economic nature, have borne a greater negative impact on the people of Africa than other regions. <sup>8</sup> The continent, which is home to many developing states, has had a large number of individuals make decisions centred around the abandonment of their source of livelihood in order to comply with the necessary COVID-19 prevention measures. Many of these individuals are in the informal sector of work, which constitutes about 70% of Africa's working population. <sup>9</sup> These jobs tend to be blue collared in nature and have not enjoyed the same level of ease when it comes to the digital transition, leaving many without a hand to feed their families' mouths.

The result of this has been an inordinate amount of arrests resulting from the disobedience of curfew orders and in some instances, police brutality. <sup>10</sup> The average man would risk contracting the virus as opposed to having their family go a week without food and faulting one for taking such a risk would be to fault them for taking the lesser evil.

Many of the challenges we are facing at the moment with regards to the right to livelihood could have been avoided had there been a speedy and strict enforcement of curfew measures, equitable and transparent dispensation of COVID-19 relief funds and accountable expenditure on resources to mitigate the spread of the virus.

A reasonable example of this is New Zealand, who successfully combated the virus in a timespan of approximately three months. <sup>11</sup> They implemented a strict country wide lockdown at the onset of the spread of the virus in February and slowly relaxed their rules with the decreasing numbers of infections. The outcome was a tally of 1569 cases, 22 deaths and a consequent mortality rate of 4 in 1 million. <sup>12</sup>

Furthermore, this shortened COVID-19 response period allowed their domestic economy to shift back to pre-pandemic levels, presenting a perfect case study on how to protect the right to lifeand livelihood amidst a pandemic.

#### 3.2 The Right to Health and Access to Healthcare

Investment in health systems in Africa has been highly insufficient. Sub-Saharan Africa, which accounts for 11% of the global population but 49% of maternal deaths, 50% of infant mortality and 67% of the HIV/AIDs cases globally, indicates this. 13 The main contributors to these statistics have been weak governance and accountability, political instability, misappropriation of medical aid funds and natural calamities. These same factors have heavily contributed to the continent's unpreparedness when it came to the coronavirus.

Multiple hospitals are understaffed, lack the capacity to hold and treat the current COVID-19 patients and the resources to keep their medical officers and doctors safe from the pandemic. <sup>14</sup> With this in mind, a preventative approach would have been the right course of action. However, multiple African states have seen the maleficence of their governments resulting in ineffectual curfew orders and therefore uncontrolled spreading of the virus.

This pandemic should serve as an example of the perils that await us as a continent should we fail to invest in our health systems. Statistics have shown a positive correlation between resilient and universal healthcare systems and pandemic mitigation and responses. <sup>15</sup> As such, as part of the process of building back better, our states should endeavor to put in place effective pandemic response mechanisms, universal healthcare systems and pandemic research units to aid in the prediction of impending epidemics and the creation of subsequent containment measures.

#### 3.3 The Freedom of Movement

Due to the curfews, lockdown and other restrictions put in place in an attempt to limit the spread of the virus, the freedom of movement has been curtailed significantly. While justified, this has resulted in the limiting of various other human rights. They have been inadvertently prohibitive on the right to access justice, to access healthcare and to access food, water and sanitation. <sup>16</sup>

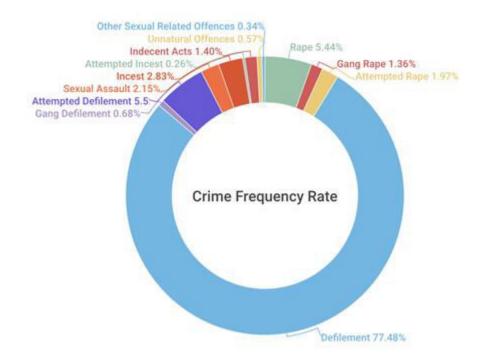
Furthermore, the COVID-19 restrictions have been used in bad faith by multiple governments to limit their peoples' right to assembly and protest. An example of this can be seen in Nigeria's end SARS movement, <sup>17</sup> and more recently, with the protests going on in Uganda. Meanwhile, government officials have not been subject to the same restrictions being imposed upon the common man, as many politicians, such as those in Kenya, have wholly ignored the restrictions and proceeded with their political campaigns. <sup>18</sup>

#### 3.4 Anti-Discrimination Concerns

COVID-19 has not been selective in who it chooses to infect, but its effects have catalysed and magnified many of the social inequalities that existed within our societies. Certain groups of people have been more affected than others. From a medical point of view, these people have been the elderly and medically compromised individuals. On a social level, it has been the poor. <sup>19</sup>

The extent to which one can enjoy their human rights has always had a financial element to it and the pandemic has driven up the prices on the enjoyment of such rights. Majority of the population of Africa cannot adjust to the virus and instead have to live through the risk of contracting it instead. In states such as the Democratic Republic of Congo, the average monthly income stands at 43\$ a month. <sup>20</sup> Adjusting for the reduction in business and loss of employment would most likely present us with even more grim figures.

Another set of individuals who have been disproportionately affected by the curfew have been women. <sup>21</sup> With curfew and lockdown orders being put in place, there have been higher reported incidences of gender-based violence, rape and sexual harassment, as many victims now have to contend with living in a confined space with their abusers. <sup>22</sup> This is not a bucking of the trend, but a reinforcement of the rule, as pandemic and emergency-based situations have always coincided with a rise in violence and HIV hyper-endemic states have consistently presented higher levels of gender-based violence. <sup>23</sup> To illustrate this, attached below is a chart presenting the nature of sexual offences in Kenya during the pandemic.



The prevalence of defilement stands out as an anomaly, and is indicative of the fact that the most affected sexual harassment victims are children. This phenomenon is explainable by the increased number of children at home as a result of the closure of schools.

These disproportionate effects are something that will occur again in the future as long as the financial disparities we have in our societies today are not dealt with. Natural calamities and pandemics are bound to happen and will more often than not will come without warning. However, with the proper investment in social security services and emergency mitigation measures, there will be less people who feel like life is not an investment worth making during these times.

# 3.5 The Right to Privacy

One of the suggested means of combating COVID-19 has been to use contact tracing. The merits for this are based in increasing the capacity of health systems to detect infections more accurately and with greater expediency. <sup>24</sup> Although, the tools employed in contact tracing carry with them certain privacy risks.

Countries such as Ghana and South Africa have made efforts to utilise contact tracing tools, but these efforts have been met with legitimate concern. The first being that this data is sensitive and any breaches or failure to maintain anonymity may be heavily prejudicial to the concerned victims. <sup>25</sup> Part of this concern stems from who is collecting the data. Charging government authorities with this task presents a daunting problem, as various African governments have proven that in the past that they cannot be trusted with personal data. <sup>26</sup>

Secondly, the accuracy of these contact tracing tools has been put into question. The tools that have been used in the past have not been as accurate as one would hope and this exposes one not only to prejudicial treatment as a result of the collected data, but prejudicial treatment that has no justification. <sup>27</sup> From a human rights perspective, this fails the proportionality and necessity components of the limitation of rights test. <sup>28</sup>

Despite these concerns, contact tracing has multiple uses for society. The control of the pandemic is only one case in which it may be used, as it has viable utility in criminal investigations, witness protection and various other fields. However, these systems are not yet ready to be deployed in society. Thus, the continued refining of these systems along with the enactment and enforcement of robust data protection laws will see the creation of a viable tool for pandemic control in the future.

#### 3.6 Access to Justice

The pandemic has, in many ways, affected the right to access to justice. The restriction of movement and consequent closure of judicial institutions, the infection and death of legal practitioners and justice providers and the economic restraints imposed upon the people have rendered justice a commodity that is difficult to come by. <sup>29</sup>

To mitigate against this, various states have put in place measures to ensure the dispensation of justice occurs digitally, including virtual courtrooms. However, these attempts have been met by a few challenges that are infrastructural, procedural and social in nature. <sup>30</sup> As a result of these challenges, we are yet to go back to our pre-pandemic levels of administration of justice.

The continued use of and investment in digital legal and judicial services should eventually reap multiple benefits beyond pandemic response measures. <sup>31</sup> Therefore, the continued training on virtual court mechanisms and the encouragement of their use should be maintained, as they present an avenue to establish more efficient, accessible and expedient dispensation of justice.

# 4. ANALYSING THE IMPACT OF COVID-19 ON LEGAL EDUCATION

The COVID-19 pandemic has largely impacted the field of legal education. <sup>32</sup> The reality of global digitisation in most ecosystems dictates that as the justice sector adopts the sweeping changes brought about by the digital revolution, the legal profession should follow suit, starting with the educational aspect.

With the rapid pace of this global trend, the legal education framework is obligated to keep up and evolve to adopt a tech-savvy approach in legal education and the training of judicial professionals. 33 In order to do so, academic institutions offering legal education are restructuring their instructional design to meet the quality of education desired by the digital world. The effect that the digitisation of the justice sector has had on legal education can be grouped into two categories, procedural and substantive changes. In this section, we shall delve into the details concerning these two forms of changes.

# 4.1 Procedural Changes

These changes are those that are concerned with the form of legal education and how it has changed in order to ensure that it persists even during the pandemic. They include:

# 4.1.1 The Incorporation of E-Learning Tools

The value of the global e-learning projects to exceed the \$330 billion mark in the next 5 years and Ivory Coast leads all African states in its investment in e-learning mechanisms. <sup>34</sup> These numbers are further highlighted by the fact that the percentage of students taking one or more online undergraduate classes increased from 15.6% in 2004 to 43.1% in 2016. <sup>35</sup> These statistics hold similarly for legal education, albeit to a lesser extent.

While the uptake of technology in legal education has been present, it has been considerably slower than those of other studies. Up until the COVID-19 pandemic, providers of legal education displayed an obstinate unwillingness to incorporate e-learning practices in their course instruction. The outbreak of the coronavirus has significantly accelerated the uptake of e-learning in the continent. Lectures, training and seminars have begun employing e-learning methods and administering online exams at a greater rate so as to facilitate distance learning. <sup>36</sup>

However, there remain various challenges to the incorporation of e-learning in legal education. These are mainly based on poor rates of internet penetration and connectivity, the paucity of curricula and content that suits virtual learning and the limited availability of course instructors who are accustomed and comfortable with virtual learning. <sup>37</sup>

#### **4.2 Substantive Changes**

These are the changes that refer to the alterations in the content of legal education and include:

# 4.2.1 The Introduction of Training Sessions on E-processes

The digitisation of the judicial sector has affected routine judicial processes and operations. The use of virtual court systems, e-filing and other digital services has created a knowledge gap when it comes to the skill that current legal judicial officials possess with regards to these systems. 38 Consequently, stakeholders in the legal education industry have been forced to retrain both students and professionals on handling e-processes, so as to ensure that they are able to keep up with the technological uptake.

Education based on the verification and authentication of documents and information presented in judicial proceedings is also emerging as a necessity as a result of the pandemic. The reliance on digital evidence requires it to be handled by individuals who possess the necessary knowhow. <sup>39</sup>

As a result, legal education systems have incorporated a specialisation of forensic evidence examination, using A.I in their training.

# 4.2.2 An Increase in the Focus on Education on Legal Tech and Legal Informatics

Modern day judicial practice has created a demand for Judicial experts who can quickly navigate expert-analysis systems. Incorporating AI and machine learning into the dispensation of justice had already begun in various states, with the US being chief among them. <sup>40</sup> This has created new fields of legal education based on legal technology.

Additionally, skills such data collection and data analysis are becoming of greater importance to legal professionals globally due to the positive impact they have on efficiency. <sup>41</sup> Disciplines such as legal informatics and information technology in legal activities have gained popularity in the recent year, as their importance has been magnified by the digital transition of the legal industry. Legal education systems have therefore taken mandate to fill the industry gap by incorporating analytics in their legal training. The transition to virtual courtrooms and the likely continuity it will enjoy will result in the adoption of the skills and knowledge delivered in these courses at a higher rate.

#### 4.3 Projecting the Impact of the Pandemic on Future Legal Education

The COVID-19 pandemic has accelerated the evolution of the legal industry and restructured its ecosystem. <sup>42</sup> The legal education tutelage model, school composition, industry placement and culture has faced criticism based on its relative technological detachment. The Pandemic has revealed massive loopholes in the legal education system, including unnecessarily high education costs, rigidness and unwillingness of the system to incorporate use of technology to practice law.

The shift to online learning models has made the future potential to adopt technology in service delivery and training in law schools visible. The post pandemic legal education framework will have tools, resources and models that better serve students and produce all rounded legal professionals that will lead to seamless collaboration with other industries. <sup>43</sup> This is in large part due to:

#### 4.3.1 The Introduction of Tech Enabled and Scalable Legal Education Mechanisms

Automated learning and digital platforms will significantly reduce the physical constraints that are currently attached to legal education on the part of both the students and teaching faculty. This approach will lead to more flexible and individualised learning, which will enable academic institutions to better curate the diverse needs of students for the benefit of their career progression.

# 4.3.2 Renewed Focus Industry Relevant & Skill Based Learning and Competency Tailored Curricula

Going forward, legal education will focus on a more holistic and tech savvy mode of instruction, providing doctrinal knowledge, people skills and instilling students with a global perspective of the complexity and skills on digital business. Further, due to the flexibility of digital learning, specialisation in specific sectors will be easier to facilitate for students, be it through industrial experience or apprenticeship programs.

#### 4.3.3 Increased Collaboration with Other Professions

The incorporation of technology in legal education will open up the legal industry to further and more impactful collaborations through technology. An example of this can be seen in the budding integration between the law and data science. More diverse legal education, as a result of the technological shift in its instruction, will therefore equip future legal practitioners with more adaptable and useful industrial skills.

# 4.3.4 Reduced Overheads and Costs to Legal Education

While virtual learning for many institutions has not resulted in savings for a majority of academic institutions during the pandemic, this is a trend that is likely to change in the future. The use of elearning platforms will not only make education more efficient, but also reduce costs that were related to tasks that are now automatable due to technology.

# 5. AN ANALYSIS OF LAW ENFORCEMENT DURING COVID-19

The COVID-19 pandemic not only affected access to justice but law enforcement procedures and processes in Africa as well. The imperative of the pandemic forced African countries to put in place stringent measures to prevent widespread exposure of the virus to the citizens, especially in highly populated urban areas. Law enforcement officers took up the important role of ensuring all government directives; including cessation of movement, social distancing measures and the adherence to all COVI-19 preventive measures, were followed. Heavy deployment of police officers to the cities and countries under total or partial lockdown was also experienced. <sup>44</sup>

The prescribed role of police officers in law enforcement during the pandemic has been to maintain law and order while ensuring compliance with the new regulations and restrictions. Law enforcement officers are to ensure that security rules and health measures are respected within communities.

Thus far, the story for many African states has mainly been concerning police brutality and their relative inaction towards the illegal acts of government officials with regards to the pandemic. There have been various incidents of police brutality in Nigeria, Uganda, Kenya, South Africa and various other states. 45

# 5.1 An Analysis of Law Enforcement Vis-a-Vis Crime Prevalence During the Pandemic

The dedication of a vast amount of police resources comes across as a mismanagement of funds, resources and personnel during this time period. Previous studies have alluded to the nature of criminal behaviour amidst pandemics and emergencies, with the current pandemic being no different. <sup>46</sup>

During the coronavirus pandemic, the crimes that have seen a vast increase in their frequency include; counterfeiting and fraud (especially with regards to medical equipment), <sup>47</sup> cybercrime, <sup>48</sup> police brutality <sup>49</sup> and as earlier discussed, sexual and gender based violence. <sup>50</sup> Despite the blatant increase in these types of crimes, there has been minimal investment in resources to prevent them by various governments in the continent.

The pandemic has also resulted in corruption related to COVID-19 relief funds for many countries in the continent. <sup>51</sup> However, the consequences for such actions have been nearly non-existent for many of the officials who have taken part in the aforementioned crimes. The state of law enforcement during the pandemic in Africa has forced to question the efficacy of our police and law enforcement systems and in consequently, formulate means to reform said systems to better serve the people they are intended to as opposed to oppress them.

# 5.2 Outlining the Challenges Faced by Security Officials in Law Enforcement during the Pandemic

In large-scale incidents, such as pandemics, law enforcement resources will quickly become overwhelmed, and law enforcement officials will have to balance their resources and efforts between these new responsibilities and everyday service demands. <sup>52</sup> All of this may have to be accomplished with a greatly diminished workforce, as officers and their families may become infected and ill, and some personnel may determine that the risk of continuing to report to work is just too great to themselves or their families.

Despite the misguided acts of the police, the pandemic also has exposed key obstacles for law enforcement related to the enforcement of public health restrictions, resource management, communication and changes in crime and service patterns. <sup>53</sup>

# These challenges include:

- Heightened risk of exposure due to close contact with members of the public had most security officials contracting the virus.
- Reduced access to their services, resulting in reduced knowledge of organised criminal activities.
- A lack of the necessary tools and resources to efficiently combat cybercrime.
- An upsurge of sexual and gender-based violence cases whose investigation and follow ups represents serious evidentiary-based challenges.
- Bails and bonds payment by arrested persons, as opposed to detaining them for normal court procedures, was in most cases handled by security officials; a role that had previously been strictly allocated to the judicial sector.

#### 5.3 Prison Reforms Amidst COVID-19

Like other viral infectious diseases, the spread of COVID-19 is higher in closed spaces such as prisons, jails and detention centres. In order to combat this, various reforms in prison systems were adopted to curb the spread of the virus in most correctional facilities.

They included: 54

- Rapid decongestion exercises to reduce the number of detained persons. This was because of serious health risks based on the probability of an outbreak in over-populated centres.
- Virtual hearings (e-courts) were implemented to facilitate access to justice to detained persons, reducing contact with the outside world.
- Protocols recommended by the World Health Organization, such as critical preparedness and response actions, infection prevention and control (WASH) and institutions operations guidelines were incorporated.
- Measures to contain COVID-19, including prison lockdowns, controlled staff movement and deployment, and compulsory quarantine for new admissions were adopted.
- The abolishment of family contacts and visits. For most prisons, visitation and contact with relatives was abolished, and restricted to mobile use.

Even though a few cases of infection were reported, all these reforms enabled correctional institutions to keep both the inmates and correctional officers safe during the pandemic.

# 6. EMERGING OPPORTUNITIES AND CHALLENGES

Innovation and Technology has disrupted every industry and the justice sector is no exception to the multitude of changes. These developments fast tracked by technology are quite a number and have created new opportunities in the justice sector. These opportunities have however also come up with challenges as addressed below:

# 6.1 The Challenges Associated with the Integration of Justice and Technology

# 6.1.1 Biases on Justice Delivery

Technological systems are often fed with human biases. This technology, artificial intelligence to be precise, can help identify criminals and strengthen public safety but also has the potential to reproduce the discriminatory biases that human beings have. <sup>55</sup>

# 6.1.2 Cyber crime and cyber attacks

As the industry transitions, there is a major threat to cybercrime attacks. Digital online tools incorporated in judicial systems to enhance ease of access to justice and legal services are often vulnerable and prone to manipulation by cybercrime attackers. <sup>56</sup> Cybersecurity has therefore become a necessity, as access to justice cannot be enhanced at the cost of the right to privacy.

# 6.1.3 Technology and Judicial Independence

Technology can be used to undermine judicial independence. There is a high risk that technology and software introduced to improve the performance of the justice systems become a point of government scrutiny and monitoring; ultimately distorting the initial aim of improving efficiency and effectiveness. Provisions to government scrutiny could come as a result of policies designed to improve performance but also allow scrutiny from non-judicial systems.

# 6.1.4 Short-term Funding and Resource Challenges

Just as the incorporation of technology into any industry is a costly venture, the same applies to the justice sector. The procurement of the required infrastructure to set up technological upgrades in an entire sector requires a lot of funding. Software development, I.T, internet and network infrastructure, I.T personnel, cyber security components and all the required resources for setting up tech-centric justice systems are quite expensive. The related maintenance costs also represent a recurring expense that must be taken into account. However, the incorporation of such systems should eventually see justice institutions save both time and money, through the allocation of automatable tasks to machines.

#### 6.1.5 Digital Illiteracy challenges.

For decades, the justice sector has focused on paper documentation. This implies that judicial officers have very little exposure to technological use and digital literacy. The same challenge is observed with citizens whom the justice sector is expected to serve. Even if the entire justice sector workforce is trained on technological use, a gap still remains on the digitally illiterate masses that actually need their services to access justice. It would therefore take a significant amount of time and training to adapt to the technological systems.

# 6.2 Unique Opportunities Presented by Law and Technology for The Industry

# 6.2.1 Legal-Tech Developments

Developments in the justice sector have forced legal institutions to adapt to the use of technology and software to provide and legal services. Legal digital products are created to either facilitate access to justice, provide legal education to the masses or ease the processes in legal firms administrative roles. Legal tech developments have substantially influenced the contemporary legal market. Smaller firms taking up the developments have access to more efficient digital products and powerful research tools giving them an added advantage over bigger non-compliant firms.

# 6.2.2 Innovative Legal Education Practices

Law and technology incorporation has tremendously improved the quality of legal education. The main focus is on the establishment of digital law schools that use e-learning to administer classes. Additions to higher legal education curricula include digital evidence and forensic examination, e-processes in the legal industry, coding, data analytics, legal informatics and software development that will be of great utility for the developing justice sector.

# **6.2.3** Innovative Legal Research

Legal research institutions are attempting to become more efficient by introducing A.I powered features in their research that track real team developments in law and other areas of research. Legal research has transitioned to digital cloud based systems such as Google scholar, WestLaw and LexisNexis. These systems use machine learning algorithms, artificial intelligence and analytics to search for and deliver better and more efficient results during legal research.

#### **6.2.4** Law Enforcement Reforms

The role of technology in the Criminal justice field is extensive. Law enforcement systems and the legal systems are using technology to combat crime and promote access to justice. This is made possible by technologies such as: big data, used in suspect identification and crime trend recognition making it easier for legal and justice experts to take action. Rapid identification systems, real time monitoring, crime detection and positioning systems are facilitating easier criminal investigation, making it easier for the justice sector to implement justice.

# **6.2.5** Greater Efficiency in Law Firm Management

Trying to find a balance between firm and client management has been a tussle in most law firms without proper set out systems. New developments brought about by technology incorporation have diverted legal firms <sup>1</sup> operational and management processes to adapt to technological approach. Digital products and legal software such as Clio, Capterra, Growthpath, Bill4Time and My Case have been developed to separate these roles of law firm management, time, billing, case and client management. All these developments will increase efficiency, therefore fast tracking processes and easing the burden of managing law firms.

# 7. CONCLUSION AND RECOMMENDATIONS

The following recommendations will not only aid in the rectification of some of the human rights violations mentioned earlier, but will also result in the prevention and the evolution of the justice sector for the betterment of society.

# 7.1 The Use of Digital Identity Systems to Increase Access to Social Services

Given the rush to collect data on its citizens by various states, civil society organisations and other relevant stakeholders should push for the utilisation of said data for the benefit of the data subjects. One way in which this can be done, is by insisting that these digital identity systems be used to avail social services, such as universal healthcare, on a priority basis for vulnerable and underprivileged individuals.

#### 7.2 The Introduction of Sex-Offender Lists for African Countries

There are currently no sex-offender registries in the continent. This is something that has contributed to serial incidents of harassment, defilement and other sexual offences. The creation of sex-offender registries that are available online and automatically updated based on court rulings would go a long way in preventing the occurrence of said crimes in a serial nature.

# 7.3 The Use of Data Analytics in Sentencing and Penal Code Amendments

African states should endeavour to create systems based on the data of convicts concerning their sentencing time, fines and their likelihood to commit similar or different crimes. Analysing this data would enable policy makers to make informed decisions concerning suitable punishments for the commission of certain crimes, adequately amend their penal codes and also provide insight as to how resource allocation into crime prevention should be carried out.

# 7.4 Additional Investments into Technology for Law Enforcement Agencies

The use of AI and predictive tools for law enforcement agencies should see a significant increase in their effectiveness in detecting and halting criminal activities. Currently, the training for police and other law enforcement agencies for Many african states is sub-standard. However, these investments would not only see an increase in their efficiency, but also lead to data oriented decision making when it comes to the allocation of law enforcement resources and funding.

# 7.5 The Enactment and Implementation of Stronger Data Protection Laws and Agencies

In order for tools such as contact tracing and digital identity systems, which have the potential to greatly benefit society, robust data protection and privacy laws will need to be enacted and implemented. While many states have begun this journey, it is imperative that we as a continent continue to make significant progress in this field.



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