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Law Without Lawyers: Examining the Limitations of Consumer-Centric Legal Tech Services

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ABSTRACT

The legal field is undergoing a disruptive change with the emergence of technology-based legal services aimed directly at serving the consumer, bypassing the need for a human lawyer. Specialized legal technologies powered by Artificial Intelligence (AI) or enabled by blockchain are leading to what is being referred to as new law, new ways of interpreting, implementing, and enforcing the law. Raymond Brescia has termed this transformative period in legal history as the third wave of lawyering. This wave is characterized by a new world of law without lawyers, comparable to the banking revolution, where mobile apps and online banking platforms replaced traditional tellers. There is an emergence of a legal ecosystem where conventional legal practices coexist alongside technology-driven legal services. These legal techs hold the promise of enhancing legal and justice inclusion by providing cheaper, more convenient, and more accessible legal services compared to traditional law firms and lawyers. This paper examines the emerging legal tech field, focusing on the business-to-consumer (B2C) category. B2C legal tech refers to tools designed to provide legal services and information directly to consumers without requiring the involvement of a human lawyer. This paper explores the factors driving these disruptive changes in legal services and evaluates some of the limitations of legal tech in meeting clients' legal needs. The author concludes that B2C legal tech is gaining traction. However, the author avers that these technologies have limitations in fully meeting the needs of their users; therefore, lawyers still play an essential role in the legal ecosystem. As legal tech continues to gain traction, specific measures need to be implemented to address some of their limitations and ensure the seamless integration of these technologies into the legal field. This paper contributes to the ongoing discourse on the future of the legal profession in the era of technological advancement.

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I. INTRODUCTION

Technology has become an increasingly social ubiquity. Its digital threads have intertwined themselves into the fabric of society, and the resulting tapestry is both transformative and disconcerting. This shift is so profound that information theorists have compared the effect of technology in the modern era to the social transformation witnessed during the transition from the agrarian to the industrial age (Webb, 2019, p. 3). The current era, termed the information or digital society, is giving way to Society 5.0 or the Super Smart Society, and is characterized by the pervasive influence of technology across different societal aspects, including law (Základsník & Putnová, 2019, p. 1085).

The impact of technology on the field of law cannot be overstated. Law is a matter of social architecture which means it is susceptible to the ubiquitous nature of technology (Rundle, 2012). Technology has been shaping the legal field in explicit and subtle ways for decades. However, in recent times, this interplay between law and technology has taken up a disruptive character. From AI-driven legal tools to blockchain-enabled smart contracts and legal purpose chatbots, a new legal landscape that blends conventional law with advanced technology is emerging.

These new developments have introduced new actors and new ways of service delivery, giving rise to concepts such as the commodification of law, uberisation of law, digitalization of law, digital lawyering, e-lawyering, e-courts, and Alternative Legal Service Providers (ALSP), among others (Caserta & Madsen, 2019; San et al., 2022). It is a transformation that is pushing the law into uncharted territory, shifting how the world interacts with the law, and challenging the conventional role of lawyers. Susan Navas (2019) calls it a new world of law without lawyers, reflecting in her paper that 'legal services are required, but not always lawyers', like the common adage in the finance world that banking services are needed but not always banks.

Central to these technology-driven disruptions in the legal field is the concept of technology-based legal services, referred to in this paper as legal technology or legal tech. This term emerged in the year 2015, followed by law tech in 2017 (Salmeron-Manzano, 2021). For this paper, legal tech is used as a holistic concept for technology that enables humans to achieve legal ends. It includes technology applied to work, which, until recently, was being done by lawyers, and technology that the end user uses to interact with the substance of the law (Whalen, 2022).

This paper focuses on the business-to-consumer (B2C) segment of legal tech, which is aimed directly at the final consumer without the involvement of a human lawyer. B2C legal techs are considered cheaper, simpler, easily accessible, and more convenient than traditional legal services (Hongdao et al., 2019). B2C legal techs aim to capture an underserved market previously viewed as undesirable by more established conventional law firms (Bruce, 2015).

While B2C legal tech has yet to catch up with traditional legal services, its trajectory is rising. The sector is expected to double in value from USD twenty-nine point eight billion in 2022 to sixty-nine point seven billion US dollars by 2032 (Bloomberg, 2022). The 2022 Report on the State of Legal Tech in Africa by LawyersHub paints a promising picture for this industry in the African region. According to the Report, this sector currently accounts for three percent of the legal market share and is marked by the continuing emergence of innovative legal tech startups. Despite being in its early stages compared to other tech startups, Africa's legal tech sector is steadily growing. This growth is expected to continue as the LawyersHub Report underscores a noticeable increase in demand for technology-driven legal services within the region.

Literature review shows that the continued growth of legal tech is expected to bring significant disruptions in the legal field (Webb, 2020; Susskind, 2003; Susskind, 2008; Susskind, 2023; Brascia, 2023a; Navas, 2019). These disruptions are expected to

impact legal structures and institutions, presenting both opportunities and challenges across substantive law, legal practice, legal education, and even the very concept of law itself (Caserta & Madsen, 2019; Brescia, 2023a; Whalen, 2022; Giuffida et al., 2018). These changes align with what is being termed as New Law by Webley et al. (2019) and involve new ways of interpreting, implementing, and enforcing the law. Brescia (2023b) refers to this wave of disruption as the 'third wave of lawyering,' marking a period of transformation in the legal profession.

According to Hongdao et al. (2019) and Bruce (2015), legal tech aims to offer more affordable, simpler, and convenient alternatives to traditional legal services. Nonetheless, while legal tech promises to enhance accessibility and enable the democratization of legal services, it raises concerns about whether the technology can effectively meet the legal needs of its users. Therefore, as legal tech continues to evolve, it is vital to understand the factors driving these technological shifts and, more importantly, to assess their potential limitations in meeting the legal requirements of their users. This forms the focus of this paper.

This paper advances the hypothesis that while legal tech seems to be gradually gaining traction, it still grapples with certain limitations in fully meeting the legal needs of its users. Therefore, specific measures need to be implemented to address some of these limitations so as to ensure its seamless co-existence with traditional legal services.

The discourse on the legal profession's future and technology's role in shaping the legal sector is ongoing and of great interest to legal scholars and professionals alike. The disruptive changes brought about by technology can potentially reshape the legal profession as it is known today. Despite this significance, it is important to acknowledge the limited academic writing on legal tech in Africa, which suggests that scholars in the continent have not extensively studied this area. Further research would be essential to better understand legal tech in Africa and its implications for the legal industry.

This paper seeks to contribute to the ongoing discussions regarding legal tech. In Part II, it examines the changes in legal services and explores the factors and enablers driving this transformation. Part III provides an overview of the technology behind legal tech, while Part IV evaluates some of the limitations and challenges legal tech faces in meeting the needs of its users. Part V presents a set of recommendations followed by Part VI which summarizes the key issues discussed in the paper.

II. EVOLUTION OF LEGAL SERVICES AND THE INCLUSION OF AI

In his latest publication, Richard Susskind (2023) builds upon his previous insights and outlines three main drivers of change that have led to the shift in how legal services are being delivered. First, is the rapid advancement of technology. Second, is the growing demand for 'more for less' as clients face economic pressure and request services at a lower cost (International Bar Association, 2016). Finally, the liberalization of the legal market has led to more diversified and innovative legal service models. These enablers are explored in detail in the section below:

A. Cost-effective legal services

The need for 'more for less', as highlighted by Susskind (2023), is the biggest driver for the demand for more cost-effective legal solutions. This pressure to reduce legal costs is encouraging clients to seek technology-based legal services that promise faster, cheaper, and more efficient legal outcomes, inevitably bypassing the traditional law firm and relegating it as an irrelevant middleman (Davis, 2020).

The concern for more cost-effective legal services is pressing in Africa. The high cost of legal fees often institutionalized by professional regulations has rendered legal services inaccessible to a large segment of the population. For example, in Kenya, the

Advocates Remuneration Order of 2014 sets the minimum fees for legal work, making it illegal to charge less. However, a critical look at these rates reveals that they are high, and only a small section of the population can afford them. This issue is not unique to Kenya. Dunia Prince Zongwe's research underscores this affordability crisis, revealing that only a privileged few can afford legal services in Namibia (Zongwe, 2021). This trend is also echoed in Nigeria (Azu et al., 2021), Ghana (Osse & Asiamah, 2020), and South Africa (Klaaren, 2019). With Sub-Saharan economic growth projected to decline (World Bank, 2023) and the majority of the population living on less than five point fifty-nine US dollars per day (Castaneda et al., 2019), a significant portion is priced out of legal services.

High legal costs have resulted in an untapped market with unmet legal needs (McGinnis & Pearce, 2014; LawTech UK, 2021). The prohibitively high cost of legal services has disproportionately impacted low to middle-income earners who either earn too much to qualify for pro-bono or find it difficult to justify hiring a lawyer for specific claims (Graham, 2020; Brescia et al., 2015; Navas, 2019). This predicament has created a justice gap, presenting a ripe ground for legal innovation (Brescia et al., 2015). This latent market is receptive to legal tech as a more affordable alternative to traditional legal services (LawTech UK, 2021; Navas, 2019).

The above scenario sets the stage for Clayton Christensen's theory of disruptive innovation to play out in the African continent (Christensen et al., 2015). Conventional law firms, concentrating on serving high-end clients, mostly involving commercial transactions, have often neglected the legal needs of the low-end population, deemed less profitable and, therefore, less desirable. This neglect has created a vacuum and a ripe ground for innovation and disruption in the legal industry in Africa. This vacuum is being filled by legal tech providers offering technology-driven legal solutions at a more affordable price and, in the process, democratizing access to legal services. As these cutting-edge

solutions continue gaining traction, the legal industry will likely experience significant disruption (Oroszi, 2020).

B. Legal inclusion

Compounding the need for cost-effective legal services is the growing demand for inclusion across various African sectors. The financial sector has made progress in this area, with fintech providing access to micro-loans through products like M-Shwari in Kenya and mobile money transfers such as Mpesa. This same demand for access and inclusion is evident in Africa's legal and justice sector, and B2C legal tech can offer an affordable alternative for those who cannot afford traditional legal services. It is a technology that can help promote inclusion and make legal services accessible to a broader African population.

C. Liberalization of the legal profession

Historically, the legal field has thrived in exclusivity. Lawyers, through self-regulation, have erected barriers around their profession. Over decades, this has shielded the legal community from external influences by fostering monopoly, thus, restricting legal practice to only those who meet specific criteria set by the professional legal body. This 'lawyers only' approach has been zealously guarded and perpetuated across African jurisdictions.

However, the protective barriers could become a source of vulnerability in the age of technological advancement. Many in the legal industry have been hesitant, reluctant, and dismissive of technology's transformative potential due to their comfort within protective structures. Professor Barton (2014) compares this complacency to the fable of the frog in slowly boiling water - unaware of the changing environment until it is too late.

Nevertheless, the legal field is witnessing a gradual shift where the barriers are breaking down. Across the world, there is a marked push towards liberalization of legal services. As defined by Dunne (2023), this liberalization is a move from a mo-

nopolized legal service market to one that is competitive and inclusive. The U.K. Services Act of 2007 exemplifies this trend, allowing non-lawyers to engage in what is termed as alternative legal service providers (ALSPs). The 2023 Thomson Reuters report on ALSPs indicates that this segment occupies twenty-point six billion US dollars of the legal market with a twenty percent growth rate, where ALSPs are predominantly in legal tech.

This de-lawyerisation indicates that the legal field is amid a de-facto deregulation of legal services, where new players beyond the confines of traditional licensed lawyers are entering the market (Dobre, 2019; Dunne, 2023; Simon et al., 2018). While the African legal landscape remains more constrained, the emergence of legal technopreneurs hints at the cracks forming in the old barriers.

In addition, the increasing automation of services across the continent is changing the shape of legal services. Take Kenya's e-citizen platform as an example. Activities such as company registration that would wholly depend on a lawyer's intervention two decades ago have now been automated. Digitization initiatives such as e-conveyancing in Rwanda and the push for the same in countries like Kenya point towards the changing role of legal practice.

One cannot overlook the structure of running law firms, whose model prioritizes short-term gains over long-term growth and innovation. Professor Katz also points out that even the most prominent law firms globally lack the collective power to usher in significant change due to the fragmented nature of the legal profession (Simon et al., 2018). This inability of law firms to rapidly change and innovate becomes especially significant in light of the entrance of the 'big four' audit firms–EY, KPMG, PwC, and Deloitte–into the legal industry.

According to studies by Thomson Reuters (2023) and LexisNexis (2021), the 'big four' audit firms are making significant inroads into the legal sector. The Thomson Reuters report shows that these firms generate around one point five billion US dollars

in revenue by providing legal-related services. They are adopting a technology-focused approach, and the traditional law firm structure does not restrict them. With their vast resources, extensive global networks, and technology-driven service lines, they are a significant driver for disruption in legal service delivery.

These shifts find judicial affirmation in the landmark case of *Lola v Skadden, Arps, Slate, Meagher & Flom, No. 14-3845 (2d Cir. 2015)*. In their decision, the Second Circuit brought into focus a critical differentiation when it held that tasks that can be fully automated do not constitute the practice of law. Simon et al. (2018) discuss the three-fold significance of the ruling. Firstly, this delineation means that as technology advances, fewer tasks will strictly qualify to be classified under legal practice. Secondly, tasks that can be mechanized will fall outside the confines of legal professional regulations. Thirdly, to remain relevant, lawyers must reimagine their roles in an increasingly automated era.

D. The exponential growth of technology

Recent years have witnessed exponential growth in technology, with more tech companies developing in Africa than in any other part of the world (Agence et al. [AFD], 2023).

To appreciate this evolution requires an understanding of Moore's law. According to Moore, the number of transistors on a computer chip doubles every two years, resulting in more powerful and cheaper computers. McGinnis and Pearce (2014) argue that this trend will likely continue. As a result, technology has become more readily and cheaply available to end users (Davis, 2020). This accessibility leads to innovations such as quantum computing and blockchain (McGinnis & Pearce, 2014). The Lawyers Hub (2022) highlights that these advancements have resulted in Africa's advanced digital infrastructure, a receptive market for digital technology, and a digitally enabled workforce.

The impact of technology in law is twofold; first, it has created an opportunity for technopreneurship in the legal field by

encouraging innovation (International Bar Association, 2016). A noteworthy trend in the legal industry is the rise of legal technopreneurs, who leverage technology to improve or revolutionize legal services to fulfill unmet needs (San et al., 2022). Legal innovation hubs and accelerators also serve as incubators where legal professionals, designers, developers, entrepreneurs, and marketers collaborate to create solutions that benefit the legal field (Rodriguez, 2015). In Africa, institutions such as the Hague Institute for Innovation in Law have invested in legal tech startups, while leading law firms such as ALN Africa have started the A&K Legal Tech Incubator Hub.

Second, technology has resulted in a more sophisticated, knowledgeable, and tech-savvy client. Law has traditionally been a black box where lawyers would customize solutions in an opaque process inaccessible to clients. This opacity necessitated clients to rely heavily on lawyers as they had more knowledge of the law than them. In the information age, this opacity in law is being broken (Harvard Law School, 2015). Technology has resulted in the democratization of information, the breakdown of traditional knowledge silos that lawyers enjoyed, and the reduction of information asymmetry between lawyers and clients. This has demystified legal practice and resulted in a more informed and sophisticated clientele (Harvard Law School, 2014).

Navigating this era of the digital client necessitates adaptability. Tech-savvy clients, who are always busy, always connected, perpetually on the move, are demanding more. A study done by Onecom into the use of digital technology revealed that seven out of ten consumers would prefer a lawbot to handle their legal matters as opposed to a human lawyer because it is faster, cheaper, and simpler (Onecom, n.d.). These findings underscore the need for the African legal profession to adapt, innovate, and evolve to keep up with technological advancement.

Before delving further, the following section offers a crucial and general overview of the technology driving legal tech.

III. THE LEGAL TECH LANDSCAPE

A. Overview of the underlying technology

To fully appreciate the nuances of legal tech application and the subsequent discussion on its challenges and limitations, it is essential first to establish a basic understanding of the technology that drives it. This section provides an overview of the technological underpinnings behind legal tech tools.

Legal tech can be broadly classified into tools aimed at directly serving the consumers (Business to Consumer -B2C legal tech) and tools aimed at making the lawyers' work easier (Business to Business - B2B legal tech).

B2C legal tech refers to tools designed to provide legal services and information directly to consumers without requiring the involvement of a legal intermediary. Examples of B2C legal tech include Do-It-Yourself systems that enable individuals to generate legal documents automatically, online dispute resolution platforms, smart contracts, and legal apps that provide legal information or act as legal service marketplaces.

B2B legal tech, on the other hand, is a tool designed to streamline the work of legal professions by automating tasks. These tools are aimed at making the work of lawyers more efficient. Examples of B2B legal tech include legal research platforms, predictive analytics programs, case management systems, and legal practice management software.

This paper delves into B2C legal tech, and to begin with, the following section provides a summary of the underlying technology.

1. Artificial intelligence and machine learning

Despite numerous studies on the subject, there is still no universally agreed-upon definition of AI. This is because AI is not a single technology but encompasses various disciplines and techniques, leading to different definitions open to subjective

interpretation (Gasser & Almeida, 2017; Weiyu & Keng, 2018; Buiten, 2019). The constant evolution of AI adds to this ambiguity, along with the fact that there are different notions of what constitutes intelligence (Berryhill et al., 2019), 2019; Buiten, 2019). This has led some scholars to argue that it is impossible to capture the essence of AI in a single definition (Linarelli, 2022).

Harry Surden (2019) defines AI as using technology to automate tasks that typically need human intelligence (p. 1307). This definition underscores the ability of AI to replicate human cognitive abilities. Yongjun Xu et al. (2021) frame AI differently, referring to AI as the simulation of human intelligence by a system or machine (p.1). AI does not merely replicate human processes but uses algorithms for computational cognition. It employs computational mechanisms to produce intelligent results typically associated with humans using cognitive abilities such as learning, reasoning, decision-making, problem-solving, and creativity (Kühl et al., 2022; Collins *et al*., 2021; Surden, 2019).

The Organization for Economic Co-operation and Development (OECD) provides a definition that forty-two countries have accepted. It defines AI as machine-based systems that, when provided with a set of human-defined objectives, can make recommendations, decisions, and predictions that influence real and virtual environments. These autonomous systems perform human-like cognitive functions (Berryhill *et al.*, 2019; OECD, 2019). The definition adopted by the OECD concentrates on the functional aspects of AI.

AI mainly falls into the following three broad categories.

i). Rules or logic-based approach

This is AI based on rules that represent underlying knowledge or logic. The designers translate experts' knowledge into formal rules that a computer can process, allowing users to receive an automated output based on the encoded knowledge (Surden, 2019; Berryhill et al., 2019). Rules-based systems apply principles and rules to a given situation (Alessa, 2022) and they

have a high level of interpretability and explainability (Berryhill et al. 2019).

In legal tech, legal information is organized into individual pieces of data and stored in nodes within decision trees. These nodes are linked to each other based on a logical set of rules, which makes this type of AI suitable for formalizing legal principles and terms (Parycek et al., 2023).

Since rules-based systems use predetermined rules to solve problems and make decisions, they are considered suitable for law. However, these systems are limited by the rules they have been programmed with and therefore cannot adapt to new situations (Parycek et al., 2023). If a situation is unusual or exceptional, writing rules becomes complex. Additionally, once the rules are written, they do not evolve to reflect new conditions or constraints (Berryhill et al. 2019). Therefore, this lack of adaptability and autonomy makes it difficult for them to be used in complex legal situations that require consideration of circumstances and context, potentially leading to a rigid, one-size-fits-all outcome. Despite these limitations, rules or logic-based approaches are popular as they offer certainty and control and remove ambiguity in the outcome. In legal tech, they are primarily used in automating routine tasks that require consistency and standardization.

ii). Learning-based approach: machine learning

Machine learning is the predominant approach in artificial intelligence, where algorithms learn by detecting patterns in data and then use the pattern to perform different tasks (Berryhill et al. 2019). Surden (2019) depicts this as an ever-evolving process where the system improves with more exposure to data, becoming more sophisticated with better automated decision-making abilities. In legal tech, data patterns can be derived from precedent, legal documents, and templates, enabling predictive analytics in litigation or facilitating automated legal drafting.

Machine learning is categorized into supervised and unsupervised (Kühl et al., 2022). On the one hand, supervised machine learning involves algorithms using prespecified attributes to determine the desired outcome and performance. In this case, the human acts as a teacher. Supervised learning is useful when a problem has been clearly defined, with a clear outcome and sufficient information on its structure and data. On the other hand, unsupervised learning works without a target attribute. It identifies patterns using unlabeled data without human involvement. Unsupervised learning is useful for discovering patterns, commonalities, and relationships in data (Alloghani et al., 2020; Kühl et al., 2022; Berryhill et al. 2019).

In legal tech, both supervised and unsupervised machine learning have their benefits. Supervised learning is useful when the desired outcome is established, and the machine must learn how to achieve it. Therefore, it can predict legal outcomes based on established parameters or applied to tasks such as document classification or contract analysis where the desired outcome is already known. On the other hand, unsupervised learning is valuable when the desired outcome is unknown, and the machine needs to identify patterns in the data. It can help identify patterns in large volumes of legal data, which may be helpful in legal research, predictive analytics, and fraud detection.

In his OECD paper, Jamie Berryhill et al. (2019) introduce two additional forms of machine learning: reinforcement learning and deep learning. Reinforcement learning involves the computer (agent) learning to complete a task by interacting with the environment. As it interacts with the environment, it learns through trial and error where the environment provides feedback by punishing errors and rewarding successes. The agent then adjusts its behavior over time. This type of machine learning has been used to create self-trained robots. In legal tech, it can be used to develop advanced legal research tools. For example, an AI agent could learn to navigate an extensive legal database and improve its search capabilities based on feedback,

enabling it to find more relevant case law or statutes with time. The limitations of reinforcement learning lie in the fact that the process of defining the agent, environment, rewards, and outcomes requires extensive expertise and resources.

On the other hand, the biology of human brains inspires deep learning, and it uses Artificial Neural Networks (ANN) to mimic the mechanisms of the human brain neurons using math. ANN has three layers: input, hidden, and output. Each layer contains neurons that hold information in the form of a number. All layers are interlinked and share information through mathematical functions.

Deep learning is used to imitate human style in various forms, including painting, drawing, music, and video creation, as well as the creation of deep fakes. The challenge lies in the fact that it is not fully explainable, and it is not clear how it truly works. This raises concerns about accountability in legal contexts.

iii). Natural Language Processing (NLP)

Situated at the intersection of AI and linguistics, NLP emerges as a discipline that enables machines to comprehend, analyze, and process human language (Khurana et al., 2023; Torfi et al., 2020). At the core of NLP lies the ability to convert written and spoken language into numeric representations that computers can interpret (Nay, 2018). This process is known as encoding and is the foundation upon which NLP builds its capabilities.

By teaching computers linguistic rules and symbols, NLP enables them to understand statements and words written in human language (Kurana et al., 2023). The potential of NLP in legal technology lies in its ability to convert legalese into a computational format that allows legal tech tools to understand and interpret legal texts.

AI complemented by NLP drives the underlying technology for most legal tech discussed in the section below.

B. A review of legal tech tools

This sub-section discusses the practical application of the above-mentioned technologies in B2C legal tech.

1. Document automation and assembly

Legal document automation and assembly uses software to generate documents based on a series of questions (Achachlouei et al., 2021). Specifically, legal concepts are modeled into rules that give instructions of the 'If' condition 'Then' conclusion type, verifying certain conditions resulting in set conclusions (Carneiro et al., 2014; Alessa, 2022).

The analytical architecture behind the technology uses a logical, rules-based approach (Kerikmae et al., 2018), which can be conceptualized as a decision tree. Legal document automation draws from knowledge repositories and reasoning mechanisms derived from a set of rules. These rules are the foundation of legal document templates, which are then converted into interview questions (Achachlouei et al., 2021). Users respond to these questions, and based on their answers, the system utilizes the knowledge base and assembly configuration to generate legal documents automatically. This final document includes phrases, words, and clauses already programmed and triggered by the answers provided (Alessa, 2022; Navas, 2019; Achachlouei et al., 2021).

One example of this application is LegalZoom, a US-based company offering interactive legal documents through a three-step process. Shipman (2019) and McClure (2017) explain that in the first step, a customer selects a document he or she wishes to complete. LegalZoom then prompts the customer to begin filling out an online questionnaire that uses conditional, rules-based logic. This logic personalizes questions based on the customer's responses through the 'If' (condition) and 'Then' (action) decision tree. In the second step, LegalZoom employees review the answers for spelling, grammar, and completeness. Finally, the

software creates a final document customized for the customer's jurisdiction. The system then automatically notifies the customer of the status of their document.

Similarly, South Africa-based JusDraft provides a legal document automation software that uses rules-based, logic-driven questions where the answers determine the next question. As one answers the questions, the legal document is drafted in real time, where the software inserts, removes, or modifies clauses based on the answers provided by the user.

Legal document automation and assembly create convenience, make basic legal documents readily available, and are more affordable than conventional legal services. However, it has its limitations as a substitute for legal expertise. One of its major drawbacks is its deterministic nature. Using preset clauses and phrases limits contextual perspective and takes a one-size-fits-all approach. While this may work for simple legal documents, it is unsuitable for contexts requiring legal reasoning and interpretation. In addition, translating legal rules into standardized templates could dilute the importance of legal expertise that seasoned lawyers bring to the table, as some aspects of law cannot be fully captured in a standardized template.

2. Online Dispute Resolution (ODR)

Online Dispute Resolution (ODR) refers to using technology to assist individuals in preventing and resolving disputes (Alessa, 2022). ODR platforms offer a way to settle conflicts that arise online using digital or electronic methods without going to court (Andreae, 2015). These platforms are modeled after traditional Alternative Dispute Resolution (ADR) mechanisms like arbitration, negotiation, mediation, and early neutral evaluation (Balcha, 2022).

ODR platforms utilize AI in either a supportive or substantive role. The supportive use of AI involves augmenting the arbitrator's or mediator's work by utilizing algorithms to calculate

compensation levels, developing a nominal solution, acting as a knowledge repository supported by intelligent search engines, and providing intelligent interface systems that use NLP to bridge communication gaps. On the other hand, substantive AI in ODR involves the technology taking on the role of a mediator or arbitrator. For example, case reasoning conducts an analysis of the provided data and applies it to the present case or uses a rules-based system to apply a set of principles and rules to the case (Alessa, 2022).

ODR platforms are designed to provide the public with new avenues for resolving disputes, increasing access to justice, and enabling faster and more affordable dispute resolution (Schmitz, 2022; Ebner & Greenberg, 2020). However, one drawback is their limited ability to handle complex dispute-resolution situations, especially in cases where substantive AI is used as the mediator or arbitrator. It can be argued that algorithm-driven decision-making lacks human empathy, context awareness, and ethical considerations.

Barnett and Treleaven (2018) divide ODR into three categories: consumer ODR, judicial ODR, and corporate ODR.

i). Consumer ODR

Consumer ODR uses technology to resolve disputes between online suppliers and customers, predominantly using e-commerce platforms. E-commerce mainly applies Multi-agent Systems (MAS) as the primary mode of operation. MAS is a distributed AI combining problem-solving techniques with computational models that mimic human conciliation. It comprises a group of entities (hardware and software) that make intelligent decisions to achieve a common goal based on information shared in the system. These entities represent parties in a negotiated settlement by proposing a solution and then suggesting it to the parties in the dispute (Carneiro et al., 2014).

Examples of global consumer ODR platforms include eBay Dispute Resolution Centre, PayPal ODR System, Facebook, and

Instagram Commerce Manager. eBay Dispute Resolution Centre is one of the pioneering consumer ODR platforms and today it is one of the largest handling sixty million disputes annually (Tsurel et al.,2020; Schmitz, 2022; University of Missouri, 2020).

To better understand how consumer ODR works, eBay's Dispute Resolution Centre provides a good example. A user initiates the process by logging the dispute in the resolution center. The resolution center will conduct preliminary diagnostics to determine eligibility for the dispute. The center will then present the proposed resolutions and request the parties to communicate through eBay's internal messaging system to resolve the issue. If a mutual agreement has not been reached after three business days, the claimant may escalate the matter to the resolution center for an evaluation. The resolution center will appoint an arbitrator who will make the final decision. Throughout this process, the seller and buyer maintain an open communication channel via eBay messages. These conversations are then made available to the arbitrator, as they provide crucial information that can help determine the final resolution (Tsurel et al.,2020; University of Missouri, 2020).

Consumer ODR has varying levels of applicability in different regions. In Africa, Consumer ODR is still in its early stages despite the presence of e-commerce giants like Jumia. Furthermore, as Faith Anyantayo (2023) has pointed out, there are no laws related to ODR in the different African jurisdictions. The lack of an ODR legal framework creates uncertainty over the legal status of ODR processes and outcomes. It raises concerns about the enforceability or recognition of ODR results by the law. In addition, the legal gap could leave consumers vulnerable to abuses during the ODR process.

ii). Judicial ODR

Judicial ODR is the out-of-court settlement of judicial disputes with the help of technology (Rule, 2015; Schmitz, 2022).

An example of such a platform is Washtenaw County Michigan Online Traffic Pleading. The platform has several features that make it a highly effective tool for resolving traffic violation cases. Users can plead their cases in their own words and from the convenience of their homes. Cases that qualify for mediation are adjusted to impeding traffic. The system also filters out individuals with more than a certain number of traffic violations in the past three to five years, those with traffic accidents, those related to school buses, and more severe infractions. Such cases are referred to the court, along with individuals who opt out of the ODR. The entire ODR process takes less than fifteen minutes and fifty percent of the users access the platform from their mobile phones (JTC, 2017).

According to a report by the Joint Technical Committee, the platform has benefited both the court system and citizens. For one, cases are resolved quickly, and parties pay fines faster and more consistently, leading to fewer default judgments. The court benefits from lower administrative costs, reducing the time spent by traffic police attending court. Citizens do not have to take time away from work or other obligations to attend court, making the process convenient. Before the introduction of this platform, fifty-one percent of fines were paid within thirty days, but after its implementation, this figure has increased to ninety-seven percent (JTC,2017).

Another example is Money Claim Online(MCOL), an internet-based service that provides a platform for individuals or businesses to make or respond to a money claim with a limit of up to one hundred thousand British Pounds. Once registered, the claimant will provide the details of the defendant and all the necessary information about the claim. A fee is required for this service, which is based on the amount being claimed. The defendant has fourteen days from the issue date to respond to the claim. Once the defense has been received, the MCOL system will enter and confirm a judgment. If the debtor cannot pay the total amount claimed, they can negotiate with the claimant.

However, if the claimant is not satisfied with the outcome of the negotiations, the case will be referred to a mediator or local county court.

The Official Injury Claims Portal is a similar platform launched in May 2021 by the UK Ministry of Justice. The portal aims to simplify the process for road accident claims involving accidents with values of up to five thousand British Pounds and total losses not exceeding ten thousand British Pounds. This online platform is free and designed to facilitate road accident compensation without the need for legal representation. As of September 2023, a House of Commons Justice Committee report reveals that five hundred and eighty-four thousand, two hundred and fourteen claims have been submitted through this portal.

The claimant logs details of their claim, which are then submitted to the relevant insurance company. The insurance company will conduct its investigations. In addition, the claimant must submit relevant medical reports if there is an injury. The insurance company, after finishing its investigation, will arrange for compensation. The portal provides regular updates and notifications to the claimants.

The platform offers claimants a self-help tool that makes the claims process faster, convenient, and cheaper. However, a critical system examination reveals that it has not fully achieved its objectives. The September 2023 House of Commons report reveals that ninety percent of claimants still use legal representatives when submitting their claims. In addition, a backlog of three hundred and forty-nine thousand claims has not been settled within the portal, with an average settlement taking up to two hundred and fifty-one days. The continued reliance on lawyers has been attributed to two things. One is the lack of awareness and understanding of the use of the portal. The second is that the legal aspects of injury claims can be complex. Therefore, claimants still prefer to use a lawyer to ensure proper representation and maximize their compensation.

While the Global South has not yet widely adopted judicial ODR platforms, the examples mentioned above can be used as case studies to assess the viability of implementing similar solutions.

The strength of Judicial ODR lies in its cost-effectiveness, speed, and convenience compared to the traditional court system. Yet, as shown by the challenges faced by the Official Injury Claims Portal, it might not be able to handle all the intricacies inherent in judicial disputes. Therefore, despite its merits, the complete replacement of human intervention remains questionable. While the judicial ODR process can handle certain matters, others will require lawyer involvement, suggesting a symbiotic relationship rather than a complete replacement of lawyers.

iii). Corporate ODR

Corporate ODR is where parties to major commercial projects and financial transactions use algorithmic mediated solutions as an alternative to arbitration and litigation. The ODR mediation channel is captured in the contract and agreed upon before the project or transaction starts (Barnett & Treleaven, 2018).

According to Barnett & Treleaven (2018), corporate ODR mediation algorithms are not designed to determine who is right or wrong, and neither do they seek to know where the truth lies. Instead, their primary aim is to reduce the conflict into areas of consensus in order to arrive at a win-win situation. This approach raises concerns about whether such platforms can adequately account for the multi-faceted interests of multiple parties and guarantee fairness.

To understand this, we will use an illustration provided by Barnett and Treleaven (2018) on corporate ODR using blockchain technology. In this case, the parties, from the onset, agree to use automated ODR based on smart contracts. All documents related to the transaction will be recorded in the blockchain distributed ledger repository. In the event of a dispute and in a bid

to save time, the parties will use the smart contract mechanisms where the blockchain is used to assess the needs and interests of each party and then seek to discover the best or worst alternative. The aim is to find consensus and provide a win-win outcome.

From this example, the dispute is not resolved based on the merits of the case or in a bid to establish truth. Although this approach is efficient and saves time, it can lead to unjust outcomes. Justice is fundamentally connected to truth, as there is no justice without truth. Therefore, the dispute resolution process should not only focus on mediating disputes but also aim to seek truth and ensure fairness.

3. Legal chatbots

Chatbots underpinned by NLP have emerged as conversational agents due to their ability to communicate in a manner that resembles human conversations (Bartenberger et al., 2018; Hasal, 2021). Their cognitive abilities enable them to understand, reason, and answer questions, allowing the end user to chat with the bot or speak without writing any text (Navas, 2019).

Chatbots utilize either generative machine learning or rules-based logic that runs on AI. Rules-based chatbots employ a retrievable model that responds with predetermined answers based on the questions posed by the user. On the other hand, generative chatbots use machine learning algorithms that enable them to offer more sophisticated answers, learning from experience and iterative interactions (Badescu, 2021). ChatGPT is a well-known example of a generative AI-based chatbot.

In Africa, some legal tech tools have integrated chatbot functionalities. Legal Fundi based in South Africa, for example, uses a legal chatbot advisor called Maya to offer assistance in various legal matters. According to an answer provided by Maya, she is a legal advisor and educator whose role is to provide legal advice, explain legal concepts in simple terms, and help individuals understand their rights and responsibilities under the law.

Another well-known legal tech that uses chatbot functionalities is DoNotPay. DoNotPay was founded in 2015 and originally termed itself as the 'world's first robot lawyer.' Currently, it is available in the United States and the United Kingdom and its AI chatbot provides legal advice and assistance using NLP and machine learning algorithms. It facilitates the drafting of court-ready documents, outlines the users' rights, and offers a legal argument to support the case (Navas,2019; Classaction, 2023).

Legal chatbots are also used in legal apps which can be categorized based on their functions. One category includes apps that aim at providing users with general legal information in an easy-to-understand format. An example of such an app is South African-based LegalMate. The app provides users with information on their legal rights in different situations, including but not limited to police searches, civic protests, and roadblocks. The key is to provide crucial legal knowledge quickly, empowering the user to make informed decisions and respond appropriately.

The second category is apps that connect users with lawyers and facilitate client-lawyer interactions. An example is the South African-based Lawyer in Your Pocket, which leverages WhatsApp to connect users with lawyers for instant legal advice. If a user requires more specialized legal work, the platform provides a list of legal specialists with a range of quotes for their services.

The third category is apps, which aim to provide a wide range of legal support by bundling various services into one platform. An example is LawBite, which focuses on providing affordable legal services for businesses. Users can subscribe to the platform at a fixed price and interact with lawyers in real time through instant messaging. They can also manage their legal documents, get no-obligation quotes at a fixed price, and handle all legal matters on the platform. The process is straightforward: users start by raising an inquiry, after which the app connects them to an expert for a free consultation. The user can receive extensive legal services upon mutual agreement if needed.

While legal chatbots offer quick and cost-effective solutions to various legal issues, the intricacies of law may sometimes necessitate human intervention. When a chatbot guides an individual through legal procedures, questions naturally arise on the reliability and accuracy of the advice provided. These concerns were highlighted in the March 2023 case of *Faridan v DoNotPay, Inc*. filed in the District Court for the Northern District of California. The plaintiff, Faridan, accused DoNotPay of providing unusable, substandard legal documents that contained inaccurate information (Pacheco, 2023). In this case, Faridan used DoNotPay to perform several legal tasks, including drafting a demand letter, contractor agreement, operating agreement, and small claims court filing. Faridan believed he was purchasing legal documents and services equivalent to those provided by a competent lawyer. However, the services were substandard, the documents were inaccurate and poorly done, and the demand letter was blank (Classaction, 2023). At the time of writing, the case was still ongoing in court.

Without a doubt, chatbots, especially when used in mobile apps, signify a shift in the legal field by offering not only accessibility but also unmatched user convenience. The transformative nature of real-time legal advice and insights and the ease of accessing it through a handheld device cannot be understated. However, it is crucial to exercise prudence. Apps, especially those that offer general legal information, must be frequently updated to maintain the accuracy and relevance of their content.

In addition, using chatbots and apps for legal advice raises a critical question on data privacy and ethical concerns. It is crucial to consider to what extent legal ethics and considerations come into play or can be embedded into the underlying algorithms. Entrusting sensitive legal information to chatbots necessitates the need to have stringent measures to safeguard this information from potential breach and misuse. Any data security compromise could have significant repercussions, given the confidential nature of legal matters. The question remains on

whether chatbots can guarantee the same level of discretion and confidentiality that a human lawyer is ethically bound to uphold.

IV. CHALLENGES AND LIMITATIONS OF LEGAL TECH

In the previous part of this paper, the author highlights various legal tech applications and their importance, focusing on those with AI capabilities. However, there are specific challenges and limitations that these legal techs face in their quest to meet the diverse legal requirements of consumers. This part of the paper, therefore, explores and discusses these drawbacks.

A. Logical gaps and complex and unstructured legal issues

Often, legal matters are complex and require a tailor-made approach that factors in the unique circumstances of each case. While automated documentation and assembly or logic and rules-based approaches can handle routine and standardized legal processes, they are limited in addressing complex, unstructured legal matters and unanticipated contingencies (Remus & Levy, 2017).

Brescia et al. (2015) highlight that these technologies typically employ a generic approach. This generalized approach gives them a deterministic nature, which is not ideal for unique legal matters that require distinguishing.

Legal practice is far more intricate than just generating a legal document. Central to legal practice lies legal argument and reasoning, which cannot be simplified into a legal tech solution. Legal argumentation and reasoning arise from thoroughly analyzing the interplay between facts and law. Translating this analysis into a form understandable to nonlawyers presents a complex task that is still beyond the current capabilities of machines (Remus & Levy, 2017).

Frankenreiter Nyarko (2023) illustrates this using the example of outcome prediction. For a lawyer to predict the outcome of a case, they must examine both the facts of the case and the

law, both of which will be in unstructured text. For facts, the lawyer will receive statements from the client, witness depositions, and any relevant supporting documents. For the law, the lawyer will refer to statutes, regulations, precedents, legal treaties, and different legal principles. Only after analyzing the facts against the law and understanding the circumstances surrounding the matter can the lawyer predict an outcome and determine the way forward. This form of reasoning is a human art of lawyering that is yet to be replicated by machines (Webb, 2020).

Legal ontology presents a challenge when translating legal terms and their interconnected meanings into algorithms (Frankenreiter & Nyarko, 2023). Many legal terms have meanings steeped in legal doctrine and theory, making translating them into binary format difficult. Legal terminologies are more than words; they encompass intricate legal theories and principles that cannot be easily reduced into algorithmic logic.

For instance, the legal principle of the reasonable person in tort law evaluates how a hypothetical reasonable person of ordinary prudence would have acted in a particular circumstance. It posits that a reasonable person should have known what would have been reasonable in that situation (Votruba, 2013; Mullender, 2005). To understand what reasonable means within the context of this principle, one would need to evaluate human behavior, common sense, societal norms, and the circumstances surrounding the case. Encoding such a principle with all its nuances into algorithms is not simple. Therefore, determining what is reasonable in a legal matter is best left to human judgment and legal professionals rather than an algorithm. According to Frankenreiter and Nyarko (2023), although there have been attempts to derive legal ontologies from AI tools, such attempts have not been successful.

In their paper, van Noordwijk and De Mulder (2022) assert that algorithms cannot think outside the box. Algorithms typically train on specific data sets, which often contain historical legal data. However, the law evolves. A new court ruling can drasti-

cally alter the interpretation of legal terms, and algorithms may struggle to adapt without constant updates to their datasets.

For example, consider the challenge of teaching an algorithm to distinguish a new case from previous ones, mainly when it involves a groundbreaking judicial decision that necessitates a different form of learning. A database of judgments would be required to accomplish this, including cases where prior rulings were overturned and new precedents. The algorithm would then need to identify specific characteristics that indicate a fundamental shift in legal interpretation, signaling the need for a different approach. However, creating such datasets can be difficult, and there may be limited data to train the AI effectively. As a result, algorithms cannot detect and anticipate the need for significant adaptations when a transformative legal development occurs (van Noordwijk & De Mulder, 2022).

In light of the foregoing, Pasquale (2018) raises a pertinent concern, arguing that with these limitations, legal tech can potentially undermine the rule of law by trivializing or ignoring essential aspects of law, especially in complex legal cases.

B. The unauthorized practice of law and the ethical dilemma

The use of B2C legal tech has sparked a debate on whether such technologies engage in the unauthorized practice of law (Tai, 2021; Brescia et al., 2015; Yoon, 2023). Central to this debate is the balance between the ability of legal tech to enable legal and justice inclusion while ensuring it meets the minimum standards of the legal profession.

Legal cases have emerged where legal tech platforms have been accused of engaging in the unauthorized practice of law. For instance, in a 2011 LegalZoom case, the court held that the service provided by the platform went beyond document provision and involved non-attorney employees intervening at different stages and, therefore, constituted unauthorized practice of law.

Similarly, in the ongoing case of *Faridian v DoNotPay*, one of the issues filed before the court concerns the unauthorized practice of law by DoNotPay. In the case, Faridan alleged that DoNotPay violated the California Unfair Competition Law by representing itself as a lawyer and offering legal services without a license. Faridan argued that despite DoNotPay's self-description as the world's first robot lawyer, it is not a robot, a lawyer, or a law firm. In addition, DoNotPay does not possess a law degree, nor is it authorized to practice law in any jurisdiction, nor is it supervised by a lawyer.

As previously mentioned, several countries in the Global South have regulations governing the practice of law, including restrictions against unqualified and unlicensed individuals from offering legal services. Although these regulations have been criticized for promoting monopolies, protectionism, and exclusivity, they play a vital role in safeguarding the public against unethical behavior and malpractices while upholding the integrity of the legal system (Remus & Levy, 2017).

Philips J noted in *Cornell v Nagle 1995* that legal practice must be exclusively limited to those adequately trained in law and have the necessary expertise to protect the public. These entry barriers ensure a minimum standard of service and safeguard the interests of consumers of legal services. Within the legal profession, malpractices result in disciplinary action. However, the use of B2C legal tech presents a unique challenge. It prompts one to contemplate whether the same disciplinary measures can be applied to software, especially in the light of machine learning algorithms, which are constantly evolving (Markovic, 2019).

Additionally, the very nature of machine learning entails iterative learning and adaptation. Ethical dilemmas arise when AI, in the process of learning, experiments with different legal strategies on clients without their knowledge. This phenomenon raises important questions about protecting the client and whether traditional ethical rules can be applied in such cases (Pasquale, 2018).

All these involve consideration regarding the ethical dimensions of technology-driven legal services, the protection of its users, and the adaptability of traditional ethical frameworks to this evolving legal ecosystem.

C. Lack of quality assurance

'Nearly every week, a new report of algorithmic misbehavior emerges' (Kearns & Roth, 2020). This statement demonstrates the growing concerns raised by the lack of rigorous, independent analysis of AI systems (Davis, 2020).

At the heart of these concerns lies the issue of data. Data is AI's lifeblood, and AI systems' output is only as good as the data they have been fed. Inaccurate or incomplete data, anomalies, algorithmic errors, and data reflecting societal or historical inequalities can lead to biased or incorrect outputs (Nithesh, 2022; Wakunuma et al., 2022; Practical Law, 2023). If the dataset of AI models has issues, even the most advanced systems will produce results that can be misleading and detrimental at best. Legal tech built on flawed datasets can harm the user more than it can help, rendering them worse off than if they had never used the technology in the first place.

Beyond data is the issue of human interpretation. Brescia et al. (2015) warn of the dangers of interpretational risk, where nonlawyers may misinterpret AI-generated legal guidance, causing more harm than good in the long run. For example, specific legal terminologies and principles have their roots in centuries of legal doctrine. Terminologies such as good faith, fiduciary, ultra vires, negligence, and proximate cause, among many others, represent intricate legal theories and principles. Interpretation of such terms is very contextual, and one must consider the facts and the circumstances at hand, including but not limited to precedent. Therefore, AI-generated legal guidance must be cautiously approached, considering the need to be cognizant of underlying legal ontology.

One of the most significant obstacles in the quality assurance of legal tech is the absence of transparency. Andrada et al. (2022) categorize this lack of transparency into two: the transparency of human practices involved in designing, developing, and implementing AI systems and the transparency of the algorithms themselves.

The opaque or black-box nature of AI's inner workings is one of its most concerning aspects. It makes understanding how AI generates its output difficult and reduces the ability to contest AI decisions (Rodrigues, 2020; Brand, 2022). Adding to this complexity is AI's propensity to adapt, learn, and evolve, which further adds to its opacity, making it difficult to predict its decisions (Nithesh, 2022; Ellul, 2021). All these factors complicate quality control and any attempts to oversee legal tech applications.

D. Legal liability

Legal technology presents various challenges surrounding liability, particularly regarding accountability and responsibility. Legal technology provides a legal service, and if the underlying technology, code, or algorithm is flawed or malfunctions, it can result in unintended harm or undesirable consequences. This raises important questions about who should be responsible for any resulting damages. These concerns pivot around three primary actors: the underlying technology, the developers, and the end-users.

Navas (2019, p. 94) and Ebers (2020, p. 6) underscore the accountability challenge. Regarding algorithms, it becomes unclear who is liable for any resulting damages. This lack of clarity could leave the user exposed and without adequate legal protection.

Certain practices in the industry worsen this vulnerability. A review of terms and conditions on legal tech websites reveals that they include disclaimers, warranties, limitation of liability, and indemnification clauses. These clauses transfer the risk

of errors, losses, claims, and expenses, including attorney's fees, to the clients. In professional ethics, a licensed human lawyer is obligated to take responsibility when things go awry. However, these online platforms do not assume any responsibility. Instead, they attempt to shift accountability to their clients through clauses that transfer to the user the risks of any adverse outcomes that may occur during their interaction (Navas, 2019; Pasquale, 2018). This approach starkly contrasts with established standards of responsibility within the legal profession.

The self-learning nature of autonomous algorithms introduces another layer of complexity to the liability discourse. Establishing a causal link in instances where algorithms have learned autonomously is a challenge yet to be definitively addressed. It prompts questions on what legal standards should apply to legal tech systems. Should the courts develop a reasonable machine doctrine like the reasonable man on the street principle?

In addition, there is a significant knowledge gap regarding lawyers and judicial personnel who understand how the underlying technology drives legal tech operations. This knowledge gap would be a challenge in any litigation case attempting to address the legal liability of legal technologies.

Entwined into all these is the debate on AI personhood. The legal status of AI systems has raised questions on whether they should be granted legal personhood or treated as tools under the control of their users.

Currently, AI systems are viewed as products of human intellect and cannot be held legally responsible (Bertolini, 2020). As a result, accountability and liability can only be attributed to natural or legal persons (Gervais, 2021). The European Parliament's Committee on Legal Affairs proposed granting advanced autonomous AI systems legal personhood (Kurki, 2019), similar to how non-human entities like corporations are recognized in the law (Gervais, 2021).

Granting legal personhood would enable these systems to have legal status as electronic personalities. However, it is essential to note that non-human legal entities, such as corporations, are ultimately controlled by humans who program their actions based on human interests and obligations. The same applies to AI systems. If an AI-driven technology is law-abiding, a human understood the applicable laws and programmed these rules into the AI's algorithms (Gervais, 2021).

This brings the discussion to another matter regarding the regulation of legal tech. Currently, there are no substantive laws on the use of legal tech in providing legal services. The lack of proper regulation creates a widening regulatory gap as legal tech plays an increasingly significant role in the legal sector (Davis, 2020).

To safeguard the public and maintain ethical standards in legal services, it is crucial to regulate technology-based legal services in the same manner as traditional legal services. For example, regulations regarding the accuracy of legal advice provided, regulations on accountability and liability of legal tech providers, confidentiality obligations, and quality control measures. Such regulation ensures that legal technology adheres to specific standards and does not downplay or hide critical legal issues behind a user-friendly interface that attempts to replace a human lawyer.

Since AI powers much of legal tech, discussions about regulating legal technology inevitably touch on current debates about regulating AI. At the time of writing this paper, no established legal framework regulating artificial intelligence operations existed. While non-binding guidelines, codes of practice, and quasi-legal standards exist, they are primarily principle-based and self-regulated (Yap & Lim, 2022; Ienia & Vayena, 2020). Some countries, such as Canada and China, and regional blocks, such as the European Union, are moving towards a hard law approach by developing AI laws to bridge the regulatory gap (Smuha, 2021; Gervais LLP, 2022; Shen & Liu, 2022; Burri & Bothner, 2021).

However, this transition is not happening uniformly across the world. Economically developed countries are significantly ahead in this discourse compared to Global South countries, where discussions regarding the regulation of AI are still in their nascent stages.

E. The invaluable role of lawyers

The emergence of legal tech has led to a rather widely deliberated matter of whether technology will replace lawyers. While Markovic (2019) underscores that lawyers fulfill a multifaceted role that technology cannot easily replace, an analysis reveals different aspects that merit consideration.

The debate surrounding technology's potential to replace lawyers is neither new nor a passing phenomenon, as it has been going on for decades. A quick online search yields numerous articles predicting the rise of robot lawyers. In some instances, the discussion paints a dystopian future where AI annihilates several professions, with the legal profession consistently highlighted as ripe for significant disruption.

Examining this from the perspective of Moravec's (1998) Paradox, which holds that computers excel at tasks that humans find difficult, such as advanced computations and abstract reasoning, but struggle with basic sensorimotor tasks that humans find easy, such as picking an object. Based on this, some argue that considering legal practice often involves high-level abstract reasoning, it becomes a profession susceptible to automation (Mckamey, 2017).

The OECD's 2023 Employment Outlook underscores this view. In its second chapter, Stijn Broecke highlights the increasing influence of AI on highly skilled jobs such as law, science, engineering, and business, which have experienced marked exposure to recent AI advancements.

While such predictions have persisted, they do not necessarily mean an immediate existential risk to the legal profes-

sion. Predicting the future, especially in areas as dynamic as technology and as intricate as law, is fraught with speculation. Rather than witness a sudden apocalyptic-like transformation, the change is evolutionary, characterized by nuanced, iterative advancements. This paper underscores that the legal field is already in the midst of this transformation, with technology steadily weaving its way into the legal fabric, ushering incremental disruption and reshaping it over time.

As discussed earlier, the attraction of legal tech lies in its ability to offer cheaper, faster, and more accessible legal solutions compared to the conventional legal services provided by human lawyers. Undoubtedly, this transformation will disrupt the legal profession as services that historically were provided by human practitioners fall under the domain of AI-driven legal tech and blockchain-enabled technology.

However, a more critical examination of this shift reveals that the most susceptible to technological intervention tend to be legal tasks of a simpler, routine, and easily mechanized nature. This indicates that there is likely a potential reduction in demand for certain traditional services that lawyers have provided. However, this reduction does not equal the complete replacement of lawyers, as lawyers play a role that technology cannot easily do.

Firstly, as mentioned earlier in this paper, lawyers do much more than just the routine task of filling legal forms, drafting legal documents, or going to court (Brescia, 2023b; Pasquale, 2018). Certain aspects of legal practice require human interaction, emotional intelligence, and legal discernment, which are skills that cannot be automated.

Secondly, the characteristics of legal problems vary, and the complexity needed to address a legal issue will depend on the matter. Legal issues are as diverse and as complex as human beings themselves. Some issues are straightforward and only need essential legal expertise, while others are more intricate and demanding. As Brescia (2023b) explains, when a client seeks legal

help, the lawyer's first step is to assess the facts and determine the level of complexity. This assessment enables the lawyer to determine the necessary legal expertise and craft the best legal strategy to employ. Unfortunately, even with the most advanced legal technology currently available, it cannot conduct such an assessment and discern between a straightforward legal issue and one that is more complicated, a skill that a human lawyer possesses.

Consequently, while legal tech can provide information to clients, it cannot replace a lawyer's expertise who can personalize the case by carefully considering the facts and the client's goals (Navas, 2019).

Mather (2003) and Brescia (2023b) present a compelling argument. The lawyer-client dynamic is inherently social. Sometimes, clients do not know what they want and expect lawyers to guide them on what to do. Constructing a client's goal is a social process. The lawyer engages with the client and determines the issues, the stakes involved, and the legal alternatives, then translates complex legal terminology into ordinary language for the client. Guiding a client through this process needs interpersonal interaction. It is a skill that legal tech cannot do, challenging the concept of relying solely on technology for legal services.

Another role that lawyers play, which cannot be played by legal tech, is to discern the motive of a client's action and separate the wheat from the chaff. Lawyers act as gatekeepers. As Elihu Root declared, 'half the practice of a decent lawyer consists in telling clients that they are damned fools and should stop'. This means lawyers sometimes must tell their clients 'no' if their interest is to engage in unlawful, misguided, and illegitimate schemes, for example, filing a fraudulent claim. This involves advising the client on the consequences of their intended actions, declining work that would amount to illegality, and screening client claims for frivolity to promote judicial efficacy (Zacharia, 2004).

Therefore, while legal tech represents a disruptive force in the legal field, it should not be perceived as a technology that threatens the existence of the profession. Instead, its existence necessitates an analysis of the symbiotic relationship between legal tech and traditional lawyering and a reflection on the evolving role of the lawyer.

F. Digital divide

The success of legal tech in Africa depends on its ability to penetrate all structures of society, and this can only be feasible if the intended end users have the necessary technological skills and resources. Unfortunately, accessing and using technology can be challenging, especially for low-income communities, the elderly, individuals with cognitive and physical disabilities, and those with digital illiteracy.

This is known as the digital divide. It is defined as the gap between those who can access and use technology and those who do not. Access means the availability of smartphones, computers, laptops, reliable internet, scanners, and printers, plus having the capacity to utilize the applicable technology (Brescia, 2023b; Sanders & Scanlon, 2021).

On the one hand, Africa boasts the fastest-growing market for mobile and internet usage. However, this progressive narrative is punctuated by underlying disparities, as Ogbo et al. (2021) explain. Sociodemographic and socioeconomic factors such as age, gender, education, poverty, and digital literacy create a digitally vulnerable population, which results in stark disparities in the utilization of technology. This vulnerable demographic often finds themselves on the periphery of the digital frontier and finds that technology alone cannot adequately meet their legal needs.

In 2021, only thirty-three percent of Africans had access to the Internet, which translates to eight hundred and seventy-one million individuals being cut off from digital benefits (Munga, 2022). For this population, the use of legal tech seems implausi-

ble. The poorest sector of the African populace, in particular, faces a significant challenge as the average cost of an internet-enabled device is one hundred and twenty percent more than their monthly earnings (Munga, 2022). Unfortunately, this group stands to gain a lot from legal tech solutions.

Cohil & Thomson (2008) supported by findings from the UK Parliament Justice Committee (2020), emphasize that conventional legal services directly delivered by a lawyer are more beneficial than digital self-help technologies for digitally vulnerable populations.

V. THE WAY FORWARD

The legal services field is changing. This paper explores various applications of legal tech. In the preceding section, this paper also highlighted some of its limitations, which suggest that the role of lawyers cannot be eliminated. However, the legal field will likely continue to witness an evolution of legal roles with less emphasis on routine tasks and new patterns of legal services emerging. In light of these insights, the author offers the following recommendations.

A. Technical competency of present and future lawyers

The impact of technology on the legal field necessitates both current and future lawyers to understand how technology interacts with the law.

Law schools play a critical role in leading the way in fostering a tech-savvy legal community. They have a role in instilling technological competencies and skills in their students, teaching them the various dimensions in which technology interacts with the law, its influence on legal practice, and its broader societal implications, and incorporating lessons on how to use these tools in the curriculum.

This is a compelling call to African universities. As they

equip students with legal knowledge, they must also equip the next generation of lawyers with the skills to navigate the evolving landscape. To achieve this, more African universities should consider designing and integrating courses on law and technology. This could include foundational courses for law students and modular training for seasoned legal professionals interested in updating their knowledge of law and tech.

Barczentewicz (2021) outlines four models for teaching legal tech in universities. The first is the basic proficiency model. In this model, students are provided with informational literacy on how to use legal research sites such as Westlaw and citation tools like Zotero. This can be incorporated into the Legal Research and Methodology modules.

The second is the advanced proficiency model. It includes an in-depth overview of legal tech and underlying technologies such as AI and blockchain. Beyond theory, it includes students engaging in critical thinking and analyzing philosophical aspects of technology, including moral and ethical considerations, plus the broader analysis of the implications of legal tech on the legal profession (Ryan,2021).

The third model involves an intensive study of technology. This model targets students seeking to work as legal engineers, legal technologists, and quantitative legal analysts. This entails an interdisciplinary approach and includes modules on coding, data analytics, argumentation theory, and computational models of legal reasoning.

The fourth is a specialized model where the university teaches only one aspect of technology, such as cybersecurity.

The first two models seem to be the most pragmatic choices for broad adoption. However, institutions that want to create a unique niche would consider offering the third model to cater to emerging roles such as legal engineers and legal technologists.

For all the above to succeed, universities will need to invest in building their academic staff's capacities to teach legal tech.

Investment into research on legal tech and its impact on the law, legal practices, and the legal profession is closely related to teaching legal tech. As highlighted in the introductory section of this paper, academic studies on legal tech in Africa are scarce.

By engaging in rigorous academic exploration, researchers can gain invaluable insights into the legal tech landscape in Africa. Such an inquiry would include an examination of legal tech concepts and approaches, current trends, consideration of significant debates at the intersection of law and technology, technical aspects of legal tech, identification and analysis of various legal tech tools, and an evaluation of how legal practice engages with these tools.

The importance of such academic inquiry cannot be overstated. It would provide valuable insights into understanding how technology is shaping the legal sector in Africa, whether as tech for law or law for tech. Legal tech conferences, seminars, symposia, and hackathons would serve as essential platforms that facilitate the dissemination of knowledge and enable critical inquiry into the sector. Research into legal tech would contribute to a deeper understanding of its role in the future of the legal profession and practice across the continent. This, in turn, would help make lawyers future-ready.

Public awareness of legal tech is important to highlight its benefits and limitations. Such awareness would enable the public to make informed choices.

In this regard, Law Societies in Africa and academic institutions could play a crucial role in raising public literacy on legal tech. One approach to achieving this could be through organizing legal tech fairs in partnership with industry stakeholders. Hosting such events would create an ideal platform for legal tech firms to showcase their solutions to the public while simultaneously allowing the public to ask questions and gain more clarity on the subject. Academic institutions could also develop short online courses aimed at educating the public on topics such as

the advantages and disadvantages of online legal services. Moreover, symposia and conferences could be organized, where the public could interact with legal tech experts. Additionally, hosting legal tech awareness months could be instrumental in raising awareness on the topic by organizing panel convenings, open debates, and tech demos during the month, serving as a concentrated period of creating awareness.

The aim would be for the public to better understand their rights as consumers, the options available, and the possible outcomes of using technology-based legal services. In addition, it will equip the public with the ability to discern when legal tech would be beneficial and where it may prove to be less advantageous or even counterproductive.

B. Regulating legal tech

As previously seen, the legal profession is highly regulated for good reasons. One key aim of regulating lawyers is to protect the public from unscrupulous legal practices and safeguard the integrity of the justice system.

In the same way that legal services offered by lawyers are regulated, there is a need to have guiding principles or technical standards on the use of legal tech at a bare minimum. Such principles or standards would act as safeguards, guiding the appropriate use of legal tech while prioritizing the interests of the public. They would emphasize the responsible and ethical design, development, and implementation of legal tech solutions.

Webb (2020) insightfully observes that matters related to technology and regulation are not well understood in the legal sector. This has resulted in a lack of forward-thinking or a holistic approach to regulating technological innovations. One could attribute this to the commonly recognized pacing problem where regulatory frameworks lag behind technological advancements. Webb (2020), however, highlights that while responses to legal tech differ among regulators, many appear to have adopted a

'wait and see' approach, which means there is limited proactive work being done in this space.

Such a laissez-faire approach adopted by regulators to legal tech has risks. Spaulding (2023) warns of the dangers of unquestioningly entrusting design dynamics to unregulated engineers. He asserts that unwarranted faith in innovation might lead to lax regulations, and the hidden costs of such leniency might become apparent when it is too late.

Therefore, Law Societies in Africa must initiate dialogues and proactively formulate legal tech guiding principles or standards. By taking a leadership role, law societies can shape the direction of these principles or standards within their respective jurisdiction. Initiating this discourse is critical to ensuring that legal tech evolves responsibly and ethically.

This entails a multifaceted approach. Law Societies working alongside other legal service regulators need to develop a framework for legal tech regulation. They should actively engage with legal tech providers and the consumers of these services, establish technology advisory panels, and expand their member's technological knowledge base. In addition, collaboration between African Law Societies and Legal Service Regulators, facilitated by a regional intermediary, would be instrumental in shaping these guiding principles or standards.

Webb (2020) identifies other areas of consideration in legal tech regulation, including ensuring regulations do not create unnecessary barriers to innovation. In addition, re-assessing the adequacy of existing regulations in addressing new risks created by legal tech solutions, and exploring different models of regulation for tech solutions. He also stressed the importance of setting information governance and technology standards for legal practice and fostering regulatory conversations touching on innovation facilitated by regulatory sandboxes.

In a related discourse, a Smart Africa report on Blockchain in Africa, edited by Gakwaya et al. (2020), examined the merits

of ex-post and ex-ante regulation strategies. On the one hand, the report argued that ex-post allows for an innovation-friendly environment as it freely allows innovation as long as specific guidelines and frameworks are in place. An example provided is Australia's endorsement of digital identification innovations. The regulator has allowed digital identification innovations on condition that a trusted digital identity framework backs them.

On the other hand, ex-ante regulatory strategies are characterized by more control by the regulators. They include requirements for innovators to register with the regulator, conditions such as pre-release certification, and regulatory audits. While this approach aims to reduce risks, it has been criticized for stifling innovation. Positioned between the two extremes is the concept of regulatory sandboxes, which offer a more balanced approach. Regulatory sandboxes have been discussed in more detail in the section below.

Building on Spaulding's (2023) guidelines for ODR regulation—which may be extrapolated to the broader legal tech field – includes ensuring precise opt-in mechanisms. In addition, there should be transparent disclosure and informed consent. Privacy and data protection safeguards should be in place. Legal tech providers should be required to publish the rules and designs of their systems. There is a need to develop precise heuristics for separating cases that are eligible for legal tech and those not eligible, plus regular reporting on the dissemination of performance data to monitor bias and errors.

C. Legal tech innovation hubs and regulatory sandboxes

As mentioned, regulating legal services and restrictions on the unauthorized practice of law can be a barrier to legal tech.

Regulatory sandboxes and innovation hubs could help solve this issue and assist in nurturing legal innovation. Although not a new concept, innovation hubs would act as catalysts for technological advancements in the legal field. They would be instru-

mental in creating an environment that enables African legal entrepreneurs to ideate, develop, and refine legal tech solutions.

A critical aspect of innovation hubs is their potential to promote interdisciplinary collaboration between technology experts and legal practitioners (Chowdhury et al., 2023). This symbiotic collaboration would ensure that legal tech tools are better tailored to serve the public and conform with regulatory requirements.

Regulatory sandboxes, on the other hand, allow innovators and entrepreneurs to explore the possibilities of legal tech without fear of legal liability or accusations of unauthorized practice of law. These sandboxes are essential for introducing quality assurance processes like accuracy tests, technology security testing, and monitoring AI behavior during the learning phase before deploying the technology to the public (Allen, 2019; OECD, 2023).

As described by Simshaw (2023), a regulatory sandbox is a policy tool by which governments or regulatory bodies temporarily relax specific laws to enable an environment conducive to exploring innovative models, services, and products. Ford & Ashkenazy (2023) characterize it as a formalized policy instrument established by a regulatory authority and designed to create a controlled, safe playground for innovation. Such a space allows innovators to experiment and gain experience without the constraints of stringent rules.

Venturing into the mechanics of the sandbox, the process starts with a call for applications. The eligible applicants are selected and admitted into the sandbox. Once in the sandbox, they have a temporary safe harbor to innovate (Simshaw, 2023). While in the sandbox, participants work in a controlled environment where they must adhere to requirements such as data sharing and predefined scale limitations. Upon conclusion of the sandbox phase, the regulatory body undertakes an informed, data-driven examination of the outcomes. This evaluation enables the regulator to provide recommendations and determine wheth-

er the innovation can be rolled out to the public (Ford & Ashkenazy, 2023).

In 2020, Utah launched the first-ever legal innovation sandbox in the United States (Simshaw, 2023; Ford & Ashkenazy, 2023). The sandbox invited innovators with new legal service ideas, primarily aimed at introducing value to consumers not adequately served by the current system (Harvard Law, 2021). The goal was to enable access to well-developed, innovative, higher-quality, and affordable legal services (Ford & Ashkenazy, 2023).

The Utah sandbox created opportunities for new actors and traditional law firms to innovate and explore new delivery of legal services (Harvard Law, 2021). By the close of its first year, two thousand five hundred entities had used the sandbox. Being limited to the state of Utah, its local orientation has raised questions about its reach and sustainability, which led to Simshaw (2023) advocating for the establishment of a national-level sandbox within the United States.

Ford and Ashkenazy's 2023 study on legal innovation sandboxes offers valuable insights that can be applied to African countries keen to establish their regulatory sandboxes. Before starting, regulators should clearly define their goals and critical assumptions. It is the regulator's responsibility to establish clear conditions for participants, ensuring they understand the scope and limitations of the sandbox. In addition, transparency and accountability measures, which include periodic reporting and full data disclosure, should be defined. Regulators must ensure that the data collected is high quality by setting up data standards protocols. Issues related to liability, insurance, and indemnity must be addressed, including putting up measures such as participants' insurance covers or setting up compensation funds. Establishing an independent oversight or advisory body to monitor the sandbox operations would be critical. Finally, regulatory bodies should recognize that sandboxes are resource-intensive and need to have funding strategies for the sandbox.

Innovation hubs and regulatory sandboxes can also serve as resource centers that bring together lawyers and tech specialists to enable practice-oriented innovation. This, in turn, could transform legal tech in Africa and establish the continent as a hub of legal tech ingenuity.

VI. CONCLUSION

The prevalence of technology has brought in an era of transformation, impacting all aspects of life, including the law. This transformation is reshaping the way legal services are delivered, challenging established models, and introducing new actors in the legal field. It is a disruptive period in the legal sector's history, referred to as the third wave of lawyering, where conventional law is merging with advanced technology.

One of the drivers of disruption is B2C legal tech, which directly targets consumers and eliminates the need for human lawyers. B2C legal tech is gaining ground in Africa as it meets the needs of an underserved market. Driven by the demand for cost-effective legal services and the imperative for legal and justice inclusion, these technologies make legal services accessible to a broader African population. Additionally, the liberalization of the legal profession, spurred by global market dynamics and technological advancements, has created an environment conducive to legal technopreneurship, supported by artificial intelligence and blockchain technology.

However, legal tech is not without challenges. Currently, it cannot handle complex legal situations. Questions have been raised about its unauthorized practice of law and legal liability in the event of algorithms or code malfunction. The lack of transparency and quality assurance challenges further complicate the situation.

Considering these limitations, several recommendations emerge. These include the need to introduce legal tech into law school curricula to produce a tech-savvy legal community; estab-

lishing regulatory guidelines for the responsible development, deployment, and use of legal tech; development of legal frameworks for ODR; creation of public awareness initiatives to enable the public to make informed choices; fostering legal research on legal tech in Africa; and establishing innovation hubs and regulatory sandboxes to encourage legal innovation.

In summary, it is undeniable that the use of legal tech is on the rise. It offers the potential for increased legal and justice inclusion by providing cheaper, convenient, and more accessible legal services compared to traditional law firms. However, it is essential to acknowledge their limitations in meeting client needs. Consequently, lawyers still play a vital role in the legal ecosystem. As legal tech continues to gain traction, it is essential to address some of its limitations to enable the seamless integration of these technologies in the legal field.

What remains clear is that the legal profession is at an inflexion point. The pressing question for lawyers is: How prepared are they for what lies ahead?

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