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**THE LEGAL AND ETHICAL IMPLICATION OF LEGAL TECH  
IN LAW**

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## **Abstract:**

With the advent of legal technology, the legal profession will be facing a paradigm shift since the work undertaken in this profession is mostly in the form of data procession and analysis. To understand the consequences that this shift will bring, this article seeks to highlight and discuss, what all legal and ethical implications will law as a field will face in the wake of rapid legal technology advancements. In Part, I, the continuous growth of computer power has been described to show that this growth is not a one- time event instead it is an everlasting effect that will dominate a greater territory. In part II, this article sheds some light on the current legal technologies with the primary aim to understand the legal implications that these technologies will create. In part III, this article discusses the ethical implications of using legal technology and suggests changes required in present rules to keep pace with technology. At last, the article has been concluded on a note that both the lawyers and the rule makers have to ameliorate.

**Keywords:** Legal technology, Growth of computer, Ethical implication.

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## INTRODUCTION

Technology in general is rapidly changing the world around us and deeply impacting human lives. Technological advances in all areas have replaced traditional ways of doing things with machine-generated work. These technological advances have now begun to enter the legal field, though it has already been entered years back now entry of technology coupled with machine intelligence will make the difference. The technological based services have already started to replace several tasks performed by a lawyer. Starting with a simple document review to complicated litigation analysis, these technologically produced services are on the verge of invading almost every task that a lawyer performs in his profession. Legal Technology, in this context, refers to computational services generating a wide range of solutions, ranging from document generation software, e-discovery, and legal research systems to predictive analysis tools. The legal technology is improving continuously; reaching new heights every day, those days are not far when this technology will be as good as lawyers with the help of machine intelligence. Intelligent machines will only become better and better, will end up shaking the entire legal field, and will end the decades-long created monopoly in the legal market.

### The Evolution of Legal Technology

According to Moore`s Law, computational powers are accelerating continuously. This Law states that transistors can shrink so rapidly that, every two years, they can be fitted twice as many as could fit onto a chip.<sup>2</sup> Moore`s Law, remained the golden rule for many years, and even after 50 years of this law, the benefit this prediction has given to the electronics industry can be felt in many ways.<sup>3</sup> This law, for many years, was the guiding force behind every computational advancement. This is the only prediction that has been kept alive till now. Many researchers still believe that Moore`s law remains accurate even after so many years. Due to this exponential growth in computational powers for years, the capacity to store and assimilate information is also rising, resulting in greater and simpler assimilation of information. The spatial capacity for storage has been rising at 23 percent per year with a doubling rate in about forty months.<sup>4</sup> This growing storage capacity allows vast information to store and thus forms an infrastructure for the growth of "Big Data". This data coupled with machine intelligence can then be used to create such legal technology that will not only clear layers of clerical tasks perform by junior lawyers but also will be able to perform tasks that require human intelligence. The most initial visible use of machine intelligence in the legal field can be seen in legal search

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<sup>2</sup> Gordon Moore, *Over 50 years of Moore`s Law*, INTEL CORP., <http://www.intel.com/content/www/us/en/silicon-innovations/moores-law-technology.html?wapkw=moores+law> ( last visited Jul. 20, 2020 ).

<sup>3</sup> *Id.*

<sup>4</sup> Martin Hilbert & Priscila Lopez, *The World`s Technological Capacity To Store, Communicate, and Compute Information*, SCIENCE, Apr. 01, 2011, at 60.

engines, such as Westlaw and Lexis Advance. These search engines have used machine intelligence to predict the search of the user. After predicting, these engines analyze millions of documents stored in the database of the engines to provide relevant information to the user.<sup>5</sup> Another significant and impressive example of the use of machine intelligence in law could be lesser known tech-savvy attorney ROSS developed by ROSS Intelligence.<sup>6</sup> ROSS overtakes advance research technologies like Lexis Advance and Westlaw in a manner that, ROSS uses Natural Language Processing which helps lawyers to communicate with the search engine in a human-like manner.<sup>7</sup> In other words, it does not provide relevant information based on keywords only rather it provides answers based on concepts that they are in need of. This allows ROSS to provide answers aimed at the intent of the user instead of just matching keywords.

Technologies using machine intelligence will improve rapidly and once if they get successful in matching human intelligence, they`ll not stop and will become only better in terms of performance and costs. The disruption by intelligent machines has already begun and soon they will be as good as lawyers in contributing to a service, making themselves a factor of production that contributes to a service. And unlike humans, they do not need a break or a cup of coffee to refresh themselves. One might think that the computational capacity only doubles every two years, but the signal is alarming and the pressure to grapple with machine intelligence is increasing. Thus, it might be only just the beginning of the machine intelligence era in the legal sector, but we can expect substantial growth and progress in the decades beyond.

## I. The Legal Implications of Using Legal Technology

Using legal technology, in the present era, would bring many implications on the law as a field. However, in this part, the focus is on the legal implications that would affect the practice of law. And to carefully understand those implications, this article will examine the categories of legal technology that are present or that will come shortly. This categorization will then be used to discuss in detail how each technology has certain implications on the practice of law.

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<sup>5</sup> Robert Ambrogi, *New 'Lexis Answers' Brings Artificial Intelligence to Lexis Advance*, LAW SITES ( Jun. 26, 2017), <https://www.lawsitesblog.com/2017/06/new-lexis-answers-brings-artificial-intelligence-lexis-advance.html#:~:text=LexisNexis%20is%20today%20announcing%20the,Lexis%20Advance%20legal%20research%20platform.&text=Users%20need%20do%20nothing%20to,appear%20as%20a%20query%20result>.

<sup>6</sup> Charlie von Simson, *How ROSS AI Turns Legal Research On Its Head*, ROSS INTELLIGENCE (Aug. 6, 2019), <https://blog.rossintelligence.com/post/how-ross-ai-turns-legal-research-on-its-head#:~:text=ROSS%20completely%20flips%20the%20hoary,the%20query%20you've%20selected.>

<sup>7</sup> Stergios Anastasiadis, *How is Natural Language Search Changing the face of Legal Research?*, ROSS INTELLIGENCE (Apr. 08, 2019), [https://blog.rossintelligence.com/post/how-natural-language-search-changing-face-of-legal-research#:~:text=ROSS's%20natural%20language%20processing%20\(NLP,research%20questions%20and%20search%20results](https://blog.rossintelligence.com/post/how-natural-language-search-changing-face-of-legal-research#:~:text=ROSS's%20natural%20language%20processing%20(NLP,research%20questions%20and%20search%20results).

Various authors have tried to categorize the existing legal tech software. This paper presents categorization according to Praduroux. Praduroux proposes eight categories in which legal technology can be divided<sup>8</sup>:

### **I.A. Lawyer to Lawyer Networks**

Lawyer-to-Lawyer Networks are networks that provide a platform for lawyers to connect with other lawyers. These networks can be used to create synergies for outsourcing and to establish social and referral networks between lawyers.<sup>9</sup> International Lawyers Network, for instance, is one of the significant examples of lawyer-to-lawyer networks. International Lawyers Network is an association of law firms providing their services in 67 countries. This association allows its members to reach and access their clients worldwide by allowing its member to outsource their work to other member firms situated in different countries.<sup>10</sup> This type of network technology provides an opportunity for a lawyer to expand his service area. Traditionally, a lawyer's services were limited to his country, but now with these kinds of network platforms, a lawyer can serve and treat his client across the globe. By outsourcing his work to other member lawyers he can provide the best quality services to clients outside his reach. This technology has a positive effect because it helps in expanding business worldwide with the highest quality services.

### **I.B. Document Automation and Assembly**

This category includes documents, forms, and contracts that could be generated by using a logic-based system. This system uses pre-existing data on a subject matter and generates a document according to the inputs provided by the user<sup>11</sup>. The automated forms are hardly new; they are into use since lawyers used forms of actions, these helped reduce the cost of the law. But machine intelligence will change how these forms are used. Most impressively, these forms with the help of machine intelligence will be tailor-made according to the specific facts and situations. For example, a user of LegalZoom can submit data about his assets and his intentions in the software to create a draft of will.<sup>12</sup> HotDocs and LawDepot are the other similar software that can produce customized legal documents. Moreover, with the growing interconnectedness of data, machines will be able to connect a specific document with its court decision, making that document continuously improve.

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<sup>8</sup> Sabrina Praduroux, et al., *Legal Tech Startups: State of the Art and Trends*, SEMANTIC SCHOLAR (2016), <https://www.semanticscholar.org/paper/Legal-Tech-Start-ups%3A-State-of-the-Art-and-Trends-Praduroux-Caro/7ed1c2365bcf8d9940a538958ccb8d0f5e7cfe20# citing-papers>.

<sup>9</sup> *Id.*

<sup>10</sup> *Benefits of ILN Membership*, INTERNATIONAL LAWYERS NETWORK, <https://www.ilntoday.com/benefits-of-iln-membership/> (last visited Jul. 26, 2020)

<sup>11</sup> Praduroux, *supra* note 7.

<sup>12</sup> Reid K. Weisbord, *Wills for Everyone: Helping Individuals Opt Out of Intestacy*, 53 B.C.L REV. 877, 918 (2012)

At first, these intelligent document generators will not usurp what journeymen lawyers do. They will still be very involved in making the first draft of a unique situation that machines will create routinely. But once this has been done, the lawyers who write wills, write contracts, and review documents will face a blurred future because machines will do that routine job. On the other hand, big law firms who hire junior associates to draft documents will save a substantial cost and will benefit from the standard quality of documents that was achieved from machine intelligence.

### **I.C. Practice Management or Case Management**

This category encompasses software that provides lawyers an effective tool to manage clients and their case information. This software includes managing features like contacts, calendars, meetings, documents, and other specifics. In simpler terms, whatever it takes to manage a case through automation will include in case management software.<sup>13</sup>

This technology will help attorneys and clients both at the same time because clients do not have to meet their attorneys just for the sake of giving any information to them. With the help of this software, they can submit and ask their information in just one click by sitting in their home, saving much on cost and time to travel. Talking about the lawyers who keep a lawyers` diary to record and remember dates of each case, this software will allow them to digitally record the dates and will push a reminder before every important date. This software will also help lawyers to get in touch with their foreign clients as to when they want.

This software has a prominent impact on the lawyers as they provide wide opportunities, but from a client's perspective, this software creates far more risks in terms of data privacy and leakages of client sensitive data.<sup>14</sup> Thus, this creates a heavy-duty upon lawyers to manage inadvertent client sensitive data leakages. Moreover, issues concerning ownership of data, identification of data, privacy, and consent will make lawyers resistant to depend on this software, as if they use this software a heavy-duty will be cast upon them to protect their client`s data.<sup>15</sup>

### **I.D. Legal Research.**

This category includes legal search engines based on advanced technology coupled with machine intelligence, data mining, deep learning, and natural language processing.<sup>16</sup>

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<sup>13</sup> Praduroux, *supra* note 7.

<sup>14</sup> Tanel Kerikmae et al., *Legal Technology for Law Firms: Determining Roadmaps for Innovation*, 24 CIRR. 91, 102 (2018)

<sup>15</sup> Peter Segrist, *How the Rise of Big Data and Predictive Analytics are Changing the Attorney`s Duty of Competence*, 16 N.C.J. L. & TECH. 527, 575 (2015).

<sup>16</sup> Praduroux, *supra* note 7.

Searching for relevant case laws and precedents has always been an important part of law practice for centuries. Machine intelligence will not only take this task from lawyers but will also perform this task more efficiently than lawyers. And, as computational powers relentlessly improve, research by machine intelligence will become closer to accurate in evaluating the persuasiveness. The shift from keyword search to semantic search will allow lawyers to find relevant information, based on natural language queries put in by the user, instead of based on keywords. For instance, if one searches for "assumption of risk", the results may not have these words but nevertheless deals with the same concept.<sup>17</sup> This semantic search will eliminate the hours of the job done by junior associates in a firm to research and to find relevant precedents. Because the data is very huge and there remains a chance that some of the relevant precedents may be missed by the researcher, machine research with accuracy will always be preferred over human research. One may argue that though lawyers may find relevant precedents by computer, still how much precedential value a case has, in the present case, can only be judged by lawyers. But this argument does not hold well when machine intelligence is starting to compete in this space as well. Machine intelligence can now also check the strength of the precedents, by checking how much other cases have relied on it. A startup called HUKUKWORK allows the search of case briefs by connecting the briefs to the results of specific cases in specific courts.<sup>18</sup> Such services will not only eliminate the judgment part played by a lawyer but will also save a lot of time spent in finding the most accurate case precedent. As most lawyers can neither comprehend the value of a precedent nor can recall all possible precedents.

### **I.E. Predictive Analytics or Legal Analytics**

This technology analyses data through statistical or mathematical techniques which results in creating and identifying meaningful patterns in the data. These patterns can then be used to infer and establish a relationship between data. Such a relationship is used to better predict future events and facilitate the decision-making process.<sup>19</sup> For example, a company called Lex Machina has collected thousands of data from all the instances of patent litigation<sup>20</sup> and is already started to predict likely outcomes in that field.<sup>21</sup>

The biggest advantage of predictive analysis is that it allows both to access a vast amount of data and to systematically explore that data, to predict the most likely outcome of the case, thereby better-equipping

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<sup>17</sup> John O. McGinnis & Steven Wasick, *Law's Algorithm*, 66 FLA. L. REV. 12, 32 (2014)

<sup>18</sup> *Enjoy Success as a Lawyer*, HUKUKWORK, <https://www.hukukwork.com/ozellikler/> (last visited Jul 26, 2020)

<sup>19</sup> Praduroux, *supra* note 7.

<sup>20</sup> Tam Harbert, *Lex Machina Arms Corporate Leaders and Patent Attorneys with Predictive Analysis*, DATAINFORMED (Jun. 06, 2012), <http://data-informed.com/lex-machina-arms-corporate-leaders-and-patent-attorneys-with-predictive-analytics/>.

<sup>21</sup> *Id.*

lawyers to decide the future course of action. Legal Analytics will still leave scope for lawyers because even if the machine provided prediction is good enough, lawyers` judgment may still have some value addition.<sup>22</sup> Thus human intelligence mixed with machine intelligence will be the deal for years until machine intelligence overtakes humans. However, with continuous growth, machine intelligence will reduce the value of a lawyer`s judgment in some of the cases.

## **I.F. Electronic Discovery**

This category includes the electronic aspect of identifying and collecting the Electronically Stored Information (ESI). This information shall be used to produce, before courts, in response to a request in a trial or investigation.<sup>23</sup> E-Discovery has become much more important after the arrival of predictive coding. In predictive coding, a document is reviewed against the larger set of documents to predict its relevancy with the help of technically created algorithms.<sup>24</sup> Although predictive coding is not perfect, it's better than what some lawyers do. With the advent of E-Discovery, large firms have now setup e-discovery cells within their firms. This cell will provide an advanced mechanism to junior associates, who have been wasting their many billable hours in discovery work for years. This technology has also proven to be an opportunity to non-law firms who can provide this discovery service in a more specialized way. Therefore, over time nonlaw entities may start to outsource this work and may prove to become the competitor of law firms. Modus is an example of a company that digitizes records and helps with predictive coding.<sup>25</sup> Thus creating competition, from outside, for lawyers.

## **I.G. Online Dispute Resolution**

This technology uses the internet to solve disputes through an Alternate Dispute Procedure. There are two branches of Online Dispute Resolution. First, is a technology-based system, where multivariate algorithms are used to help parties arrive at a favorable position. Second, is a technology-assisted system, where technology only helps parties to conduct their resolution process effectively and efficiently through means of online platforms and do not suggest any particular outcome to parties.<sup>26</sup> To be sure, this technology still leaves room for arbitrators. The present-day technology provides several solutions to the parties, but what can be the most favorable solution, out of all the suggested solutions, will still have to be decided by an arbitrator. This is so because unrestricted or blind reliance on the machine output may disturb the idea of the "use of an

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<sup>22</sup> John O. McGinnis & Russel G. Pearce, *The Great Disruption: How Machine Intelligence Will Transform the Role of Lawyers in the Delivery of Legal Services*, 82 *FORDHAM L. REV.* 3041, 3053 (2014).

<sup>23</sup> Praduroux, *supra* note 7.

<sup>24</sup> Joseph H. Looby, *E-Discovery-Taking Predictive Coding Out of the Black Box*, *FTIJOURNAL* ( NOV 2012) <https://ftijournal.com/article/taking-predictive-coding-out-of-the-black-box-deleted>

<sup>25</sup> *What Makes Modus Unique?*, *MODUS* <https://discovermodus.com/about/> (last visited Jul. 26, 2020)

<sup>26</sup> Praduroux, *supra* note 7.



intuitive sense of justice".<sup>27</sup> Moreover, presently this technology produces conservative output, which is heavily relied on previously resolved disputes, which obviously lacks original thinking. Therefore there is a need for arbitrators who can give innovative yet favorable solutions in each dispute.<sup>28</sup>

## **I.H. Data Security Technologies**

Data Security Technology is a part of legal technology because it is intended to protect client data that is exchanged in client data transfers. This technology uses industry-standard encryption algorithms to protect litigation sensitive data from inadvertent leakages and thefts.<sup>29</sup> This technology will prevent attorneys to be criminally accountable for any theft of leakage. Also, the attorney's fidelity will increase as the client would be able to trust his attorney before handling him some crucial information. Also, attorneys will be able to fulfill their due duty of confidentiality strongly and effectively with the help of Data Security Technologies.

## **II. The Ethical Implications of Legal Technology.**

When considering the legal technologies and the changes they bring into the legal field, it is important to discuss the ethical implications that they create. The use of technology and machine intelligence presents several ethical issues for lawyers. The biggest ethical concerns are discussed below.

### **II.A. Client Confidentiality**

The use of legal technology could violate the lawyer's duty of confidentiality, given under Bar Council of India Rules 1975 which were made under Section 49(1)(c) of the Indian Advocates Act 1961. Rule 17 of Standards of Professional Conduct and Etiquette of BCI Rules states that an advocate shall not commit the breach of the duty imposed by the virtue of Sec. 126 of the Indian Evidence Act.<sup>30</sup> Sec. 126 entails the principle that an advocate shall never disclose the information which was transferred from his client to him. This information shall include both the conversation and the documents that have been shared between the advocate and his client.<sup>31</sup> By using technologies such as practice management software, there is a blatant risk of exposing the crucial personal data to hackers and thieves. This makes an advocate more prone to breach his obligation of confidentiality. Moreover, unlike America's Model Code of Conduct which specifically requires an advocate to follow common security practices to ensure the security of the client's personal data<sup>32</sup>, there is

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<sup>27</sup> G. Vannieuwenhuysse, *Arbitration and new technologies: Mutual benefits*, 35 J. INT'L ARB. 119, 126 (2018)

<sup>28</sup> *Id.*

<sup>29</sup> Praduroux, *supra* note 7.

<sup>30</sup> Bar Council of India Rules, 1975, Rule 15.

<sup>31</sup> The Indian Evidence Act, 1872, No. 01, Acts of Parliament, 1872 (India)

<sup>32</sup> ABA MODEL RULES OF PROF'L CONDUCT R. 1.1 cmt. 8 (2009).

no such provision in BCI Rules which will augment advocate`s decision to employ data security technologies. Therefore, this is suggested that Indian standards for lawyer`s conduct should be evolved to cope up with the new technological era.

## **II.B. Client interests**

Rule 15 framed under Section 49(1)(c) of the Advocates Act 1962, states that an advocate should uphold the interests of his client by all fair and honorable means.<sup>33</sup> Would this interest, in the wake of growing usage of technology by lawyers, mean that advocate should prevent his client from needless dissemination of data that can be used to the client`s detriment?. Unlike, other state bar associations who are continuously thriving to evolve their ethical duties, in the face of rapid technological advancements, Indian ethical obligations for lawyers are still in flux and do not align with present problems. In times like these, when all the legal services would be conducted online, clients` personal data are at a very high risk of being stolen. Therefore, to uphold the client`s interest, it becomes an obligation for an advocate to warn his client against all the odds of technology. And this is an obligation that stems directly from the advocate`s duty to uphold his client`s interest. Specifically, a lawyer should advise his client against the needless dissemination of his personal data that could be used to the client`s detriment by another.<sup>34</sup> Thus it is suggested that Rule 15 under BCI Rules, should be amended in a manner that it creates a duty for an advocate to carefully advise clients about the odds of technology. However, for advocates, it would be a constantly evolving obligation and would be a complicated task.

## **II.C. Unauthorized Practice of Law**

Section 29 of the Advocates Act 1961, entitles Advocates to be the only class of persons to practice the profession of law.<sup>35</sup> Therefore the unauthorized practice of law by the machine intelligence software may be the biggest ethical implication to address. This is because this software may or may not be created by lawyers and Advocates Act allows only advocates to practice. For example, DoNotPay, a legal services application, assist consumers in contesting and suing anyone without paying any legal fees to attorneys.<sup>36</sup> While such technologies can make legal services super affordable for customers, they raise the ethical question of whether the creators or operators of such apps are doing the unauthorized practice of law. In light of this question, it is suggested that the National Bar Association should play a proactive role in defining the unauthorized practice

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<sup>33</sup> Bar Council of India Rules, 1975, Rule 17.

<sup>34</sup> Segrist, *supra* note 12, at 602.

<sup>35</sup> The Advocates Act, 1961, No. 25, Acts of Parliament, 1961 (India).

<sup>36</sup> Jon Porter, *Robot Lawyer DoNotPay Now Lets You "Sue Anyone" Via an App*, THE VERGE (Oct. 10, 2018), <https://www.theverge.com/2018/10/10/17959874/donotpay-do-not-pay-robot-lawyer-ios-app-joshua-browder>

of law and should make it clear that whether these technologies would be bound by BCI rules made under Advocates Act.

## **II.D. The Use of Legal Technology by Judiciary**

Statement 1 of “Restatement of Values of Judicial Life”<sup>37</sup>, requires a judge to conduct himself in a manner that reaffirms the people’s faith in the impartiality of the judiciary.<sup>38</sup> Now, if predictive coding and other legal analytics technology get successful in reaching to Indian courts, a judge can run afoul of this statement while giving technology-assisted decisions, as technology may deliver biased output. For instance, India does not allow discrimination based on sex and race and if a data analysis technology, that a judge uses to arrive at a decision, produces racially skewed data, the judge could in violation of the statement mentioned above. Therefore to be in pace with the rapid technological developments it is suggested that a judge should be formally obliged to take due care while using technology in his court. This would require the judge to be wary against the drawbacks of technology.

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<sup>37</sup> NNLRJ INDIA, *Restatement of Values of Judicial Life (1999) – Code of Judicial Ethics*, LAW RESOURCE INDIA (Nov. 12, 2009), <https://indialawyers.wordpress.com/2009/11/12/restatement-of-values-of-judicial-life-1999-code-of-judicial-ethics/>.

<sup>38</sup> *Id.*

## CONCLUSION

Automation in the legal sector has occupied a growing share of the tasks performed by legal professionals, resulting in the present situation, in which almost every legal task can be done by intelligent machines. Law firms welcome these technologies for the cost and time effectiveness, and society appreciates new changes as they make legal services more affordable and fruitful. Whereas, the traditional law firms try to keep law and its practice in a way opaque to gatekeep this sector. The long created monopoly has to date prevented the adaptation of new technology. Besides, many lawyers fear that machine intelligence will replace them and accuse engineers of creating agents that are not capable of representing the "living nature" of law.<sup>39</sup> However, as excellent as the machine intelligence maybe, one has to agree that it will not affect the oral advocates who speak in court, the highly specialized lawyers who work in areas subject to rapid changes, and the counselors who advise clients.<sup>40</sup> For other lawyers, it will be a transition to new forms of work to which adjustment will always be possible for those who want to seriously work on it. As machine intelligence advances and will be increasingly utilized in the law profession, changes to the Bar Council Rules are required to ensure that consumers receive confidential and affordable services. At last, technology will continue to impact human lives, thus, the legal profession must ensure that appropriate rules and regulations are in place to safeguard public rights.

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<sup>39</sup> Kerikmae T. & Sarav S., *Paradigms for Automatization of Logic and Legal Reasoning*, G.M. EDS. 205, 2017.

<sup>40</sup> McGinnis & Pearce, *supra* note 17, at 3042.