

Artificial Intelligence That Are Beneficial for Law

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In this 21st century, artificial intelligence (AI) has largely influenced the legal sectors. AI technology has helped various persons of legal field, such as lawyers, judges, law makers, etc. to store large number of confidential files safely. On the other hand, it saves time, ensures efficiency, ensures accuracy, helps to review documents, conducts legal research, etc. These days AI has also become an important subject matter for the government sectors including legislature itself. The laws are published in websites of various government institutions and made accessible to the people across the globe. Similarly, these days, law firms around the world also have been using AI to facilitate counseling to their clients, to review the documents, and even to make application in the court. The importance of AI in the field of law seems to be increasing day by day, for instance, establishment of National Judiciary Informatics System (UYAP) in many countries. Thus, AI has been playing the important role in legal field. Despite that it may result in greater harm to the mass people due to different reasons, such as hacking, data loss, etc. Consequently, AI needs to be used very consciously in the field of law to enjoy its beneficial part. The authors in this paper have explored the merits and demerits of AI and suggest for reducing the negative aspects of AI including its implications in Nepal. In order to produce a realistic paper, the researcher has followed descriptive and analytical research method while preparing the paper.

Keywords: artificial intelligence (AI), algorithms, machine learning, technology, legal sector, documents, implications

Introduction to Artificial Intelligence

Artificial intelligence (AI) has been appeared one of the innovative methods to acquire information and knowledge in several sectors. AI can support three important business needs: automating business processes, gaining insight through data analysis, and engaging with customers and employees (Thomas H. Davenport and Rajeev Ronanki, 2018). AI is the field of study that describes the capability of machine learning just like humans and its ability to respond to certain behaviors (Alsedrah, 2017). AI mimics certain operations of the human mind and is the term used when machines are able to complete tasks that typically require human intelligence (Marr, 2018). A commonly employed branch of artificial intelligence is machine learning (Kantner & Kukkonen, 2018).

The term machine learning is when computers use rules, i.e., algorithms to analyze data, learn patterns, glean insights from the data and shifts the way legal work is done (Marr, 2018). The main advances of artificial

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intelligence in over the past 60 years includes advances in search algorithms, machine learning algorithms, and integrating statistical analysis into understanding the world at large (Smith, 2006). This method of learning has been increasing very fast across the world. AI is being used almost all sectors of knowledge. The authors in this paper are trying to explore the use of AI in legal field.

Historical Development of AI

John McCarthy proposed artificial intelligence in 1956 in his first academic conference on the subject (Smith, 2006). The idea of machine operating like human beings began to be the center of scientist's mind as Alan Turing introduced that machine can have ability to think and learn by itself (McGuire, 2006). Alan Turing became able to put his hypotheses into actions after series of testing on whether "machines can think". The test provided the result that it is possible to enable machines to think and learn just like humans (Alsedrah, 2017). The European Union adopted AI technology in 2001. As a result, the Turkey's Constitution, in its Article 36 requires to adopt IT technology in justice system. EU has developed Legislation Interoperability Tools – LegIT, an open software for drafting and editing of legislation (EU, 2016).¹ The Government of Turkey has developed an advanced system of AI through the National Judiciary Informatics System (UYAP). UYAP is developed by IT Department of the Ministry of Justice (MOJ) by using the most updated technology and methodologies (EU, 2009).² Currently, many nations across the world have been modernizing the justice system by using IT under Strategic Plan of Judiciary.

Some Examples of AI Used in Legal Field

AI is a tool for facilitating greater productivity and efficiency but not a replacement for lawyers (Hall, 2018). Many law firms around the world are investing in artificial intelligence technology (Chang, 2018). The benefits of AI in legal field are significant savings in time, higher revenue, greater efficiency and more accuracy, increased creativity and less stress for lawyers (Chang, 2018). These days, AI technology has been helpful in legal field as well. Some of the AI technologies that have been used in legal field are briefly stated below.

ROSS

ROSS is a legal research platform powered by artificial intelligence for U.S. law. The team of machine intelligence scientists and seasoned lawyers work toward one goal: Building technology that helps lawyers deliver fast, cost-effective client wins.³ Its AI search reads through all case law, provides a person with precise collection of cases they need to develop authoritative legal positions and can even analyze facts.⁴

Kira Systems

Kira is a powerful machine learning software that identifies, extracts, and analyzes text in contracts and other documents.⁵ Kira helps complete contract review work faster while mitigating risk of errors and

¹ See <https://joinup.ec.europa.eu.com/>

² Idem

³ See <https://rossintelligence.com/>.

⁴ See <https://rossintelligence.com/>.

⁵ See <https://www.kirasystems.com/>.

unexpected liabilities.⁶ Kira saves time by automatically highlighting and extracting relevant contract language from contracts in virtually any file format.⁷

LawGeex

LawGeex automatically reviews every contract that enters the system. If no problems are found, the contract is immediately approved. It also understands legal language and its business implications regardless of form or phrasing and compares them to their company's policies.⁸ All non-compliant or missing clauses are flagged, and pre-approved language is offered, so that lawyers can apply fixes in just one click. Revised contracts are easily exported to Word format with all changes tracked and made ready to send to the counterparty.⁹

eBrevia

eBrevia uses industry-leading artificial intelligence, including machine learning and natural language processing technology, developed in partnership with Columbia University to extract data from contracts, bringing unprecedented accuracy and speed to contract analysis, due diligence, and lease abstraction.¹⁰

Curia

Curia is an American artificial intelligence company now particularly working in immigration law to provide information to the people as efficiently as possible.¹¹ Curia has operating branch office in Kathmandu and focusing on U.S. immigration law.

Seethoos Inc.

Seethoos Inc. is an artificial intelligence company consisting of highly skilled and creative technology with legal as well as business minds. It operates in India, USA, and Nepal.¹²

Pros and Cons of AI

Pros

These days, AI has also become an important subject matter for the government sectors including legislature. The laws are published in websites of various government institutions and made accessible to the globe. Similarly, these days, law firms around the world also have been using AI to facilitate counseling to their clients, review the documents, and even to make application in the court. The importance of AI in the field of law seems to be increasing day by day. The pros of AI can be stated as follows:

1. AI technology creates more time for attorneys to advise clients, appear in court, and work to negotiate deals and can significantly reduce litigation costs (Hall, 2018). For instance: With a goal of "making every divorce amicable", Wevorce provides couples of self-guided online divorce solution as a typical divorce settlement can take a year or more and can cost \$27,000 on average in the United States (Marr, 2018). Some of the tasks that AI are now able to accomplish, such as document review, proofreading, and legal research which can be tedious for attorneys' stress (Chang, 2018).

⁶ See <https://www.kirasystems.com/benefits/law-firms/>.

⁷ Idem.

⁸ See <https://www.lawgeex.com/platform/>.

⁹ See <https://www.lawgeex.com/platform/>.

¹⁰ See <https://ebrevia.com/>.

¹¹ See <https://askquria.com/> (Last updated January 15, 2019).

¹² <https://seethos.com/legal/>.

2. AI has the benefit of allowing attorneys more time to talk to clients, keep clients better informed by spending more time explaining their legal strategy, and develop deeper relationships with them (Chang, 2018).

3. AI-powered software improves the efficiency of document analysis for legal use; machines can review documents and flag them as relevant to a particular case. AI systems, such as the one offered by ROSS Intelligence leverages natural language processing to help in analysis of documents (Marr, 2018).

4. AI can help analyze contracts in bulk as well as individual contracts. There are several software companies who created AI tools specifically for contract review, such as Kira Systems, LawGeex, and eBrevia that help sort contracts quicker and with fewer errors than humans (Marr, 2018).

5. With the use of AI that has access to years of trial data, lawyers are able to predict legal outcomes by making their research better (Marr, 2018).

Cons

Despite the fact that AI technology is one of the significant aspects for legal field and developed for beneficial purposes, sometimes it may result in greater harm to the mass people due to different reasons, such as hacking, data loss etc. Thus, the cons of AI can be stated as follows:

1. In the hands of the wrong person, AI could easily cause mass casualties (Tegmark, n.d.).
2. Algorithms that are used for recruiting often include data obtained from publicly available databases where the accuracy or completeness of the data may be questionable or incomplete (Kantner & Kukkonen, 2018).
3. The World Bank has estimated that a higher rate of unemployment will be due to automation in low and middle-income countries than high-income ones (World Bank, 2016).
4. As everything becomes mechanic, demand for electricity will jump up approximately 40 times, leading to severe energy crisis (Dahal, 2017).
5. The demand for highly skilled workers is bound to grow as low skilled workers face job losses (Ghimire, 2018).

With the advancement of the AI in legal sectors, some of the serious questions can arise, such as:

1. If AI eliminates many more routine tasks in legal practices that are traditionally being performed by young attorneys, interns, etc. Will this affect hiring and advancement of young attorneys and interns? (Marchant, 2017)
2. How does legal trainings and law schools need to change to adjust with the new realities of AI driven legal practices? (Marchant, 2017)
3. Will lawyers be responsible for the mistakes of AI system? (Marchant, 2017)

AI in Legal Field: Insight From Nepalese Legal Perspective

Nepal does not have large scale deployment of AI systems as the main problem is that the country lacks data which is of prime importance for AI systems of today that are primarily based on machine learning and the another problem is that Nepal still have a dearth of AI expertise.¹³ However, robots are being used in some sectors, such as banks, hotels, etc. For instance, a robot called Pari at SBI Bank, Darbarmarga branch acts like a

¹³ See <https://www.quora.com/Is-artificial-intelligence-used-in-Nepal>.

receptionist (Dahal, 2017). Similarly, AI Company focusing on legal and business sectors has emerged in Nepal, i.e., Seethos Inc. Nepal can be taken as an example of AI Company working in banking projects including the legal units of Banks and various other companies in Nepal.¹⁴

In context of Nepalese legal sectors, most of the people belonging to legal field, such as lawyers, judges, legislatures, law students, etc. mostly rely on traditionally preferred paper works rather than computer software. AI can do drafting documents as well as other various works, such as reviewing contracts, within a very less time but these kinds of works are still performed by human resources in Nepal. However, the use of computers to store large number of data replacing bulks of century old files has been increasing with the development of technology. Thus, the AI is still passing through its initial phase in legal sectors.

The use of AI is increasing all around the globe, however, the developing countries are facing serious problems in operating AI technology due to lack of financial resources, power supply, and skilled manpower. These problems can be the serious problems in Nepal due to lack of enough financial resources and skilled manpower.

Justification in Favor of AI Potential

As stated in chapter four above, the cons are more than pros. However, people are compelled to adopt it to follow the developed nations. On the one hand, the law firms are implementing AI solutions to deal with monotonous and voluminous legal paperwork which is normally assigned to paralegals or junior associates, and on the other, the question is raised whether the legal technology can ever completely replace people or not? (LexisNexis, 2018).

Billy Last, CEO of content and software solutions provider, LexisNexis South Africa, has attempted to justify that while new technology is exciting, it should never overshadow the fact that law is an industry built around people. (LexisNexis, 2018). Similarly, Miller justifies that the capability of using AI throughout the legal industry and specifically in legal department is poised to take machines beyond simple key word search tools to partners with whom lawyers will team up to deliver better, faster and cheaper legal services (Miller, n.d.). Despite this, time and again it is also realized that without adequate risk assessment and mitigation, AI may pose a threat to existing vulnerabilities in economic systems and social structures (Bowser, Sloan, Michelucci, & Pauwels, 2017). Advocating for a systems approach to AI research and development that accounts for other emerging technologies promoting human participation is necessary. AI developer must seek to maximize benefits and minimize risks by building or supporting subject-specific communities that could help to encourage broad perspective and creative activity (World Economic Forum, 2018).

Findings, Conclusion, and Suggestions

AI is the newest technology that helps to perform monotonous and voluminous legal paperwork which is normally assigned to paralegals or junior associates. The use of AI throughout the legal industry and specifically in legal departments has helped many firms and companies to deliver better, faster, and cheaper legal services. AI seems to be the fastest, easiest, and convenient way for lawyers, legal professionals, law students, and whoever belonging to legal sectors. Despite this, AI sometimes may cause huge loss to the mass people at once. Thus, it

¹⁴ <https://www.facebook.com/pages/category/Information-Technology-Company/Seethos-Inc-Nepal-103830851099769/>.

will be very consciously used in order to enjoy its beneficial part by reducing the risk factors it contains. Without adequate risk assessment and its mitigation, AI may pose a threat to existing vulnerabilities in economic systems, social structures, and legal sectors where such AI is used. Thus, in order to reduce risk, it seems necessary to conduct broad investigations into AI. Furthermore, to make AI more reliable in legal sectors, the research with the involvement of both legal professionals and AI professionals also deems essential to find out the loopholes of AI and the ways to improve such ambiguity.

Similarly, AI researchers involved in collaboration with policymakers should conduct additional in-depth studies and analysis to better understand and anticipate aspects of AI considering its impact across time, various sectors, wage levels, education degrees, job types etc. Moreover, in context of legal sectors, encouraging the approach of AI research and development that also promotes human participation seems to be necessary in every parts of the world where AI is used. AI developer can be of great help to maximize benefits and minimize risks of AI by issuing proper guidance to the users.

Finally, AI has become one of the essentials of life for numbers of legal professionals living in different parts of the world. In context of Nepal, the use of AI Technology is essential and Nepal needs to prepare legal data as well as human resources for it. Hopefully, the use of AI in legal field would be more advance in future days.

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