A Challenge from Humanoid Bots: An Analysis of the Legal Regime in Sri Lanka on Artificial Intellegence

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Abstract— **Sofia, the world's best-known humanoid bot has challenged legal regimes in the world. Rapid and unregulated development of Artificial Intelligence (AI) has major repercussions for Legal personality. AI which is a specialized area of Information Technology (IT), focuses on the simulation of human intelligence processes by machines has become an important area in the ongoing global fourth industrial revolution. This new development has created opportunities as well as the challenges everywhere in the global society, has not been sufficiently investigated in Sri Lanka.**

In this Back drop, this paper explores current legislation, policies and legal regulations of AI in Sri Lanka with two other jurisdictions in order to sort the solutions to the research problem which questions the sufficiency of the legislation to protect AI status of BOTS in order to reach its main objective to examine the challenges of AI on the legal regime paying special emphasis to Sri Lanka. The research rested on qualitative approach to study by usage of primary and secondary sources, materials included national and international legislation, academic and media data. The study stood on the comparative legal analysis, integrated legal interpretation and modeling. In addition to that, key informants were interviewed where necessary to construct strong arguments and balanced conclusions or recommendations.

This research argues that special emphasis should be laid to the prospective of treating AI as an autonomous legal personality and separate subject of law and control. The article identifies major approaches in legislation and practice on national regulation of AI and explores a number of current options: AI as a subject of law introduced into national legislation without prior background, AI as a subject of law equal to a person, and regulated or not regulated by separate rules of law, etc.

Findings laid grounds to conclude that Sri Lanka has not still been prepared for the challenges posed by AI within the legal system of the country. Some awareness and preparedness are visible in exploiting the opportunities offered by the AI. The legal educational institutions are slowly working to expand the AI components to their study programs. Infrastructural facilities for AI are insufficient at legal institutions in the country and for preliminary recommendations on legal drafting with regard to AI status as that of autonomous legal personality.

Policy recommendation can be suggested that, it is essential to introduce accelerated programs to bridge the existing gaps in the AI in the country. Awareness programs would be useful at the initial stage covering all important layers of the legal system in the country. Some basic components should be introduced to the school curriculum to make people aware of the implications of AI on legal system of the country. Sufficient public funds should be allocated with proper planning horizons in this exercise and they can be used for development of national legislation and further research on legal aspects of robotic AI.

Keywords— AI, Chat Bot, Humanoid Bot, Legal Personality, Legal Status, IP

I. INTRODUCTION

The technical paradigm of the advanced economy shapes novel markets, which deliver rise to modern administrative measures and subjects for control, including Artificial Intelligence. The over drift basically concerns the arrangement of innovations that will profoundly alter the feasible market economy, constraining experts out of diverse zones. With respect to lawyers, the circumstances offer small trust, right presently there are innovations that uproot attorneys from the market [1].

One of the remarkable blueprints that affect both the legal services market is the occurrence of the DoNotPay chat in the UK, and currently covers over 1,000 fields of law [2]. The popularity of the above service is due to the fact that it successfully challenged over 160,000 parking tickets issued illegally to car owners [3] the processed requests amounted to 64%.

As regards the Russian market, Sber Bank launched a robot lawyer to file claims for individuals, the company Glavstrah Control launched a bot to settle insurance disputes [4]. At the same time, it is already impossible to stop the current technological trend, therefore, the existing technological model needs legislative base to regulate AI. Both lawmakers and researchers focus on the issue [5].

Against this back drop, the present research investigate that prominent weight should be attached to the issue of treating artificial intellect as separate subject of control within civil and administrative and also in criminal proceedings within the context AI competing with human. The purpose of the study is to identify key trends in Sri Lankan legislations on AI. The objectives of the study are the following:

Research of current models of state regulation of AI, Identification of challenges in the current and prospective model of administrative and legal regulation of AI, Development of recommendations to improve the above regulatory apparatus.

II. Methodology

The study was conducted within the qualitative paradigm and integrated data from social, legislative and academic practice. Research materials integrated a number of sources such as legislative base and draft bills concerning AI regulation, research papers of scholars who specialize in the field under study, official media sources. The research methodology rested on comparative legal research, techniques of analysis and synthesis, hypothesis formation, a method of interpretation of norms, a method of legal modeling, etc. Due to the research period limits it was not possible to cover the entire list and depth of legal phenomena in the field of AI.

Therefore, the first stage focused on two models of the current mechanism of state regulation of AI that were selected as subject to study: introduction of AI in legal relations, as a subject of law without providing legislative infrastructure; preparation for the introduction of AI in legal relations on the basis of the comprehensive complex of legislative infrastructure. At this stage, the analysis of regulatory sources and their interpretation was implemented.

The second stage focused on some countries that develop the legislative base for robotics - Estonia, Germany, the USA, Russia and make their policies public. And compared with the Laws of Sri Lanka. This stage explored the main features in determining the legal personality of the robot, the basis for perspective legislation, formed by the state, business and legal experts. A method of comparative legal research, generalization and a method of interpretation of standard norms was mostly used at this stage. In the third stage the methods used were of legal interpreting and modeling to identify key legal gaps within the framework of the two current paradigms to regulate legal relations between a human and a robot.

III. Results and discussion

The study made it possible to identify major basic approaches to AI state regulation across the countries.

a. A. AI as Subject of Law Introduced into National Legislation without Prior Background

Currently in general, the approach to AI is implemented either in the form of a software package (virtual platform, chat bots, Human Bots, programs, etc., which do not have a material shell), or programmatically (robot, drone, etc.) as an instrument for specific goals laid down in the framework of legal relations formed by legal entities [6]. At the same time, there are cases when actions with regard to robot status contradict current national legal norms.

A case from Saudi Arabia: Riyadh announced in 2017 that robot Sofia, that positions itself as a woman, was granted the citizenship of Saudi Arabia (Saudi Arabia Gives Citizenship, 2017). This step contradicts to a number of laws that determine the model of behavior of subjects of legal relations in different conditions. First it contradicts the norm of Saudi Arabia citizenship that can be obtained in the following ways (Saudi Nationality System, 2018):

By birth; in a traditional family, where the mother and father are Saudi Arabia citizens; The birth of a legal entity in Saudi Arabia, a family where the father is a citizen of Saudi Arabia, and the

mother is not a citizen of the country. At the same time, a notarized acknowledgment of paternity is deemed to be necessary.

- The birth of the subject: by the mother of a Saudi citizen, where the father is not a citizen of the RAA, provided that coming of age, the subject has a permanent residence permit and is fluent in Arabic.
- By marriage;
- By naturalization under a number of conditions: reaching the legal age; fluent in Arabic; settlement over 10 years; legitimate way of earning; no criminal record; compliance with the norms of conduct set out in the country.

Furthermore, the case understudy contradicts the accepted model of female behavior in Saudi Arabia society that introduces specific requirements to female activities, including obligation to travel accompanied by a male mahram, wearing hijab, job placement limits, limits to traveling abroad, restrictive issues in family life and inheritance rules, and some other restrictions stemming from the Shariah.

Moreover, the robot citizenship contradicts the female rights in Saudi Arabia, where a woman can perform public functions, through representation in a consultative assembly (Shura), a number of women hold positions in the public service [7]

A case form Japan: Japan in 2017 provided a residence permit for the chat bot Shibuya Mirai under a special regulation [8. However, this action contradicts laws regarding residence permit procedure in Japan. It is opened for foreign specialists employed in Japanese companies, participants in the family reunification program, entrepreneurs and investors doing business in Japan, scientists, artists and athletes of world level, foreigners who married a Japanese citizen, foreign students when studying at a Japanese higher educational institution, foreign citizens in special cases (passing service, etc.). Citizenship granting in Japan is regulated by the Law on Citizenship of Japan (Nationality Law of Japan, 2018).

The Law states two options, namely by birth or naturalization. In the case of birth, the child should be born in Japan (without reference to the nationality of the parents), or by the father, and the mother holding the Japanese citizenship. In the case of naturalization, the person should live in Japan over 5 years, have legal capacity and reach the age of twenty, have adequate standard of living, and no affiliation with organizations associated with activities against Japan.

In Sri Lanka, Section 4 of the Citizenship Act No.16 of 2003 in Sri Lanka, grants citizenship for a person inside or outside of Sri Lanka by in decent if his father was born in Sri Lanka, or his paternal grandfather and paternal great grandfather were born in Sri Lanka, by way of discretion of the minister (Sec.8) and By birth (Sec. 7).

b. B. AI as Subject of Law, Equal to a Person, and not Regulated by Separate Rules of Law

Bearing in mind above mentioned legal precedents of AI status as equal to human being in Saudi Arabia, Japan and Sri Lanka, we consider its important to focus on the procedural aspect of the public legal relations:

- Neither the chat bot, nor the robot Sofia, applied for citizenship (residence permit)
- Meets the criteria of capacity (age qualification)
- They do not meet the criteria of settle or do not speak the national language to the extent set out by law.

Due to the above formal criteria, robot and the chat-bot should have faced a refusal when submitting the documents. Further problems arise for AI to comply with the legislation specified by the host country. First, the emancipated woman is a robot that does not comply with the requirements specified for clothing, ethics of behavior (male escort), and this robot should have been brought to administrative and criminal responsibility under the current Saudi Arabia legislation. As regards chat bot, there are fewer problematic issues, as it does not have a material shell and is tied to the location of the server.

With regard to the duties, human Bots (AI) also receives rights, as any citizen (or a resident who has obtained a residence permit). In case of the robot Sophia, now in Saudi Arabia women can act in the executive branches, participate in labor relations and marry. However, there is no adequate state regulation with regard to securing and terminating the respective legal relations. As a consequence, when the robot is equated to a person, there will be a problem both in Sharia courts and in courts of

general jurisdiction, since the model of conduct is not specified by law.

In case of Chat-bots, the circumstance requires point by point thought through a publicly-legal Prism. AI performs freely legal capacities and acts as an operational mediator in communication between the inhabitants of Shibuya Province and government authorities. Continuing from the truth that this AI has got a resident permit as a foreign specialist (made by Microsoft) or a civil servant (serving the area), the address emerges concerning the arrange of the work contract, that is the only formal ground to grant residence permit. Moreover, Legal Capacity for being above 18 will not be fulfilled in this scenario.

In Exploration, case of erroneous or awkward exhortation is given by AI, it may lead to legal consequences since the enactment cannot record the responsibility of the AI since there is no tangible shell. The Microsoft as a developer is insured by the fact that the AI is a separate legal entity with all the ensuing consequences. Apart from that, liability of the developer has not been properly defined or stated in the enactments.

Considering ethical moral viewpoint, the subjects below considered don't consist of it. Besides, in case of regulatory or criminal claims being recorded, corpus dilicti will be fragmented, due to the need of aim (and its formal mindfulness)

c. C. AI as a Matter of Law Spanning Continents under Current and Prospective Legislation

Equal status is granted to AI in Saudi Arabia and Japan, but so far there has been no debate on A I for legal status in Sri Lanka. Thus, the UK formed the AI Committee in the "House of Lords" [8]. The U.S. government is not trying to recognize AI's legal status as an entity and concentrating on the legal definition of AI. Section 3 of the AI bill sets out the criteria generalizing AI.

- Artificial systems that can perform tasks without the presence of humans (autonomous systems)
- Systems that think as if they were equivalent to the human brain and can pass the Turing test or other comparable examination by manipulating natural language, reflecting intelli gence, automatic reasoning and learning systems that act rationally achieve goals through perception, planning, reasoning, learning, communication, decision making and action [9].

As for EU countries, they pay specific attention to legal regulation for un-manned vehicles. Thus, the German Traffic Act [10] imposes the responsibility for managing an automated or semi-automated vehicle on the owner and envisages partial involvement of the Federal Ministry of Transport and the Digital Infrastructure. In the EU resolution on robotics, a more detailed and understandable approach to the concept of current and prospective robotics legislation is presented (European Parliament Resolution, 2017). It defines types of AI use, covers issues of liability, ethics, and provides basic rules of conduct for developers, operators, and manufacturers in the field of robotics, the rules base on the three laws of robot technology by Azimov (1942).

The first key issue is the robot's independence with AI and the degree of participation of third parties in robot operation. As a result, a legal conflict arises, as the robot cannot be held liable for acts and (or) negligence within the context of the current legislation and as a result, responsibility rests with the user, software developer or supplier.

At the same time, the EU resolution raises the issue of liability in the event that the robot caused damage due to the robot's own decisions (based on the embedded algorithms) and the third party responsible for paying damages cannot be identified

At the same time, there is a separate AI reservation with the concepts of neural networks (self-learning), which cannot in theory be anticipated and, as a consequence, the current legal system cannot take their behavior into account or, as a consequence, assess the culprit in the proceedings.

There is a parallel EU law bill in Russia, called the Grishin Law (2015), which is under review by the Russian Parliament. The draft law makes changes to the provisions of the Russian Federation's Civil Code and, irrespective of the independence of the robot, places all issues and liability on the designer, operator or manufacturer of the robot, Representation, problems in law, enforcement agencies, etc. In addition, there is a Robotics and AI Model Convention that sets guidelines for the development and use of robots and AI [11]. The paper appears to be well placed as it lays the foundation for specific branch of legal regulations on the production and use of AI in society.

d. D. Challenges to AI as a Separate Legal Subject, not Manmade and Governed by Different Rules of Law

The legislative measures in place with respect to robotics are considered to be similar in nature in the case of current initiatives by the EU countries, the EU Parliament and Russia, in which case the robot has minimal legal capacity and all responsibility for their actions lies with the owners. There are also a variety of daunting variables at the same time.

First of all, the EU resolution does not address such concerns as the future reach of the operation of the device. The Russian law allows for a limited list of robot free use that is restricted strictly to peaceful purposes, as with current developments in the Civil Code. As a consequence, a number of issues arise. In the case of drone use under a serviceman's command, it is simply a tool to execute an order, the serviceman is liable for proper and improper use. Threat and danger to a human is initially rooted in the use of a device for the respective tasks in the case of robot use for military purposes.

On the other side, robots (drones) are used for military purposes in Russia and abroad. Due to the current use of a robotic AI for a dual purpose, it raises the question of the dispute between Asimov's concepts and EU regulations, etc.

The second key aspect is the robot's lack of autonomous operation. As a result, the robot is just another type of vehicle and the need for more control of the "modernized device" disappears in the spirit of this rule, as responsibility for any action lies solely with the manufacturer, the operator and so on. The EU resolution gives a clear reason that it is difficult to include a third person as responsible f or the actions of the AI system in the event of complete autonomy of a robot, and the situation re quires special consideration and specific solutions.

In relation to the Russian administrative legal framework, we discuss the third factor. This consideration stems from the current situation with the inclusion and growth of the issue of AI status within the Russian Civil Code.

In my opinion, the rationale of legal science and practices demands that the above circumstances, their classification, be defined in a separate legislative act, as the authority of the national executive agencies with regard to robotics. Moreover, the robot citizenship contradicts the female rights in Saudi Arabia, where a woman can perform public functions, through representation in a consultative assembly a number of women hold positions in the public service.

In contrast to the above analysis, Sri Lanka is still Silent about giving legal status to AI therefore, there is no legislation to be recognized in Sri Lanka.

IV. CONCLUSION

The research findings made it possible to define two paradigms of shaping legal relationships that occur between robotic AI and an individual, namely human rights equalization and robot equalization, on the one hand, and the concept of legal personality of a fully autonomous robotic AI, on the other.

We encounter the issue of the current legislative framework and the lack of effective regulatory mechanisms for this topic in the case of the equalization of human rights and the robot. In the event of an organizational, criminal or other incident, the executive bodies will face the challenge of defining the Corpus Delicti, developing effective tools to influence behavior, and to determine the third party’s participation in the offence committed by robotic AI.

In fact, the current legislation recognizes that robotic AI can enforce public authority functions. The question of the validity of legal capacity and the evaluation of potential legal risks arises as a consequence of the use of automated self-learning AI. Robotic AI does not have an innate set of moral and ethical values in a civil servant.

The second paradigm of relationships between robotic AI and man suggests some positive legislative framework being created. At the same time, in the current versions of national legislation, the issue of the legal identity of a fully autonomous robotic AI, its legal capability and responsibility has not been resolved. In the new version of the rule, in the case of an illegal accident, the whole is solely with the AI founder, programmer or operator. This approach greatly restricts the design potential of robotic AI. As a consequence, its use is only possible in the sense of complementary human functions. Therefore, it is considered that it is appropriate to create a legal vision of the specific purpose of robotic AI, to explore and define its legal existence in accordance with the "heart" of the law defined as the basic concept of prospective legislation. Given the findings of the study, the research would propose that the Sri Lankan legislators should consider: The possibility of establishing in the field of robotics a self-regulation institute that will be able to develop guidelines and

codes of conduct that are mandatory for managers and operators of robot agents to comply with, as well as for the robot agents themselves. The creation of such an organization as the approved body in the field of robotics at the national (federal) level, which will be able to determine the types of operation permissible to robots, given that the robot is a source of great risk.

In conclusion, Law of the EU is properly updated in accordance with the technological development and digitalization. In contrast to the IP Law of Sri Lanka, EU Directives lays down aiming to harmonize the law applicable to copyright in the framework of the internal market, taking into account, in particular, digital and cross-border uses of protected content. It also lays down rules on exceptions and limitations to copyright and related rights, on the facilitation of licenses, as well as rules which aim to ensure a well-functioning marketplace for the exploitation of works and other subject matter. Moreover, EU Directives introduce Digital Single Market Strategy to secure the online content. Apart from that it emphasizes the exemptions for Text and data mining for the purposes of scientific research, cross boarder teaching and cross border cultural heritage. It takes measures to improve licensing and collective licensing practices and ensure wider access to content while giving a recognition and remuneration to the Authors of the content. Apart from that, Access to and availability of audiovisual works on video-on-demand platforms and the intermediary liability of the on-line platforms are properly addressed in EU Directives. Apart from that, Works of visual art in the public domain, work of online press publications, use of protected content by online content-sharing service providers and Fair remuneration in exploitation contracts of authors are elaborated and liabilities are specified in its articles. Transparency obligation of the Member states to ensure that authors receive a remuneration on a regular basis will not deprive the authors by content piracy. Alternate dispute resolution procedure will lower the number of court cases of IP related nature. Apart from that protection of personnel data will ensure the data privacy of the authors. Apart from the above gaps, Sri Lankan Law have already been analyzed as a territorial law in the enforcement and lack of harmonization of the IP Law have made barriers to preserve the content in the internet.

Therefore, it is suggested to amend the IP Act accordingly and also make rules and regulations to regulate the internet making intermediaries liable for copyright infringement.

Literature is suggested to research mechanisms and regulations to harmonize IP the laws in Sri Lanka with other nations and also further research could be recommended to discover the challenges for IP law in artificial Intelligence.

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