

# CHATBOTS. LEGAL CHALLENGES AND THE EU LEGAL POLICY APPROACH

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## **Abstract**

*In the modern era of digital technology, chatbots are becoming a prominent element in the conversational services. Chatbots are software that can successfully communicate with human beings. Their popularity as a means of communication has been recently engaged not only in the business field, for the relation with clients and consumers, but also for the services provided by regulated profession such as doctors, lawyers, etc. The aim of this paper is to present the general juridical problems which may arise when employing a conversational agent in the communication process with humans. Issues such as taxonomy, intellectual property rights, civil liability, consumer protection, cybersecurity and compliance with secrecy regulations, privacy and data protection, and other problematic human rights issues are among those to be taken into consideration. Recent documents of legal policy of the European Union are also presented, namely the Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on Artificial Intelligence (AI) and amending certain Union legislative acts. This proposal, although aimed to address AI in general, has a number of provisions also relevant for chatbots, as conversational AI.*

**Keywords:** chatbot, artificial intelligence, human rights, consumer protection, liability.

**JEL Classification:** K24, K33

## **1. Introduction**

While communication is a key element of the human society, history of such communication has been including various tools to enable such communication. Most of such tools were merely mechanical (such as the Morse code or the fire or sound signals), or electrical and electronical (radio, telephone, fax, emails etc.). however, use of other intelligence than human was not excluded. Pets had performed various roles in human communication, too, from post delivery services (pigeons or horses carrying correspondence) to more complex roles (dogs and horses used for warning messages). In the context of internet and digitalization, the recent years brought us another tool for communication, a much more complex one, the artificial intelligence.

Chatbots are one of the most interesting new tools for communication where artificial and human intelligences is intertwined. Chatbots might change the way people engage with data and services on the internet. Recent advances AI and machine learning have sparked a surge in interest in chatbots. Chatbots are seen as the next big thing by major internet businesses like Google, Facebook, and Microsoft. Chatbots are currently conceived and developed mostly for mobile messaging apps and therefore highly accessible to large number of users.

As all new technical achievements, they develop faster than the legislative framework does. This is a normal situation, as law makers need first to assess the social need for new norms or for adapting the existing ones, by observing the development of the reality as it unfolds over a certain time. Law is not a quick reaction mechanism, by definition, as it is aimed to be of general application. Quick reactions are reserved to the participants in the social events.

The justice system may always adapt the application of the existing laws to the specific factual situations, if not using a particular legal text that would be designed to address that particular situation, then by applying the principles of law. Denial of justice is excluded even in absence of a text of law that would be for a tailored for new niched reality.

Chatbots raise plenty of legal and ethical issues, including suitability for the user group, data collection, security of data storage and privacy, later correlating of data, reusing, and broader

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questions of accountability, applicable regulatory frameworks, and responsibility to report, to name a few. Chatbots, as innocent as they appear at first, pose a slew of ethical and legal concerns, questions, and potential liabilities that must be carefully considered. Adequate chatbots can be relatively simple to set up — the more complicated the chatbot, the more technologically hard it is — but maintaining and disposing of both basic and complex chatbots requires a certain amount of technical and social complexity.

This paper aims to present the challenges brought by chatbots to the current legal status quo and identify the main possible applications of the existing legal framework for this new reality of the human communication.

## 2. Chatbots

### 2.1. The concept

Artificial Intelligence, or AI, is the development and evaluation of autonomous algorithms (software and robots). It may be used in almost any field of employment. Intelligent robots can perform a wide range of activities, from manual labor to complex processes. Human brain simulation and natural-language processing are some of the most prominent trends in this subject. A chatbot is one of the most common instances of an AI system nowadays. The very name comes from a combination between the words “chat”, meaning a conversation between two interlocutors based on a specific topic and “robot” referring to an automatized system, from which the word “bot” has been extracted, meaning software robots. Basically, chatbots are computer programs that engage with users using normal language<sup>3</sup>.

They allow an interaction when human reaction would be more difficult, such as for large number of users in parallel or for periods of time when humans are less available (such as night time of weekends).

Audio and textual chatbots, types of digital intermediaries, are growing more popular in this setting, changing how people engage with computers and with each other, facilitating communication between humans and machines and giving the users the feeling of conversing with another human being. Any chatbot machine can understand one or more human languages due to Natural Language Processing (NLP). As a result, the system interprets human language input using information provided to it. Furthermore, a chatbot can also perform important functions like computations, reminders, and so on.

As it was mentioned previously, an important characteristic of a chatbot is the capacity to leave the impression that the online interlocutor is human, while it is actually a computer. This capacity is proven by the “Turing test”<sup>4</sup>, which is one of the most often used intelligence tests for such a system. Alan Turing, a British mathematician, devised this test in his 1950 paper “Computing Machinery and Intelligence,” which was published in *Mind*.

The first genuine NLP computer software to pass the Turing test, which is widely known as a chatbot, was ELIZA, created by Joseph Weizenbaum, a German American computer scientist widely regarded as one of the inventors of contemporary artificial intelligence<sup>5</sup>. The primary purpose of ELIZA was to imitate a Rogerian psychotherapist by displaying “non-directional psychotherapist answers in an initial psychiatric evaluation.”<sup>6</sup>

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<sup>3</sup> Bayan Abu Shawar, Eric Atwell, *Chatbots: Are they really useful?*, "Journal for Language Technology and Computational Linguistics", 2007, p. 29-49, available online at [https://jclcl.org/content/2-allissues/21-Heft1-2007/Bayan\\_Abu-Shawar\\_and\\_Eric\\_Atwell.pdf](https://jclcl.org/content/2-allissues/21-Heft1-2007/Bayan_Abu-Shawar_and_Eric_Atwell.pdf), last accessed on 13.11.2021.

<sup>4</sup> Alan Mathison Turing, *Computing Machinery and Intelligence*, “*Mind*, Volume LIX”, 1950, p. 433-460, available online at <https://www.cs.princeton.edu/~chazelle/courses/BIB/turing-intelligence.pdf>, last accessed on 13.11.2021.

<sup>5</sup> Joseph Weizenbaum, *Computer Power and Human Reason: From Judgment to Calculation*, W H Freeman & Co., New York, 1976, p. 202-228.

<sup>6</sup> Caroline Bassett, *The computational therapeutic: exploring Weizenbaum’s ELIZA as a history of the present*, “AI & SOCIETY - Journal of Knowledge, Culture and Communication”, p. 803-812, 2019, available online at: <https://link.springer.com/article/10.1007/s00146-018-0825-9>, last accessed on 13.11.2021.

According to Weizenbaum, one of ELIZA's shortcomings was that "dialogue between man and machine was shallow."<sup>7</sup> Even though the human part of the conversation could tell that the answers given by the chatbot are based on their input, it inspired other developers throughout the years to create other chatbots that want to fool users into thinking they communicate with another person, as it may be seen in the "Imitation Game."<sup>8</sup>

Many chatbots or human-computer dialogue systems have been developed in the immediate aftermath of ELIZA to simulate various fictional or real-life personalities using various pattern matching algorithms.

## 2.2. Classification of chatbots

Modern chatbots may be divided upon a number of criteria.

Firstly, upon the complexity criteria, there are:

(i) simple chatbots, easier to use; they are frequently rule-based, with pre-programmed decision trees or simple "If-Then-Else" rules.

(ii) core complex chatbots, the called "conversational agents"; they have more flexibility: they can deduce human intentions and meanings, and they can employ AI techniques like natural language processing and machine learning, including deep learning neural networks<sup>9</sup>.

Second, upon the interface and interaction style of a chatbot, there are:

(i) Simpler chatbots, which display textual communication on the screen (e.g. input via keyboard or mouse).

(ii) More sophisticated chatbots, speech- or voice-based; prominent examples include digital voice assistants like Alexa and Siri<sup>10</sup>.

## 2.3. Designing of chatbots

In the creation of a chatbot by a developer, the first stage is for the developer to determine the bot's objective. Second, the designer will decide if a rule-based or an NLP framework should be used in the development of the chatbot.

Decision trees are used by rule-based bots to communicate with one another. A conversation plan anticipates what a customer would ask and how the chatbot should react, comparable to a step-by-step map or schema chart. Even if the inquiries are more complicated, natural language bots (NLBs) can understand the context. They improve their response to the customer's inquiry as a result of their ability to learn from their mistakes<sup>11</sup>.

## 2.4. Use cases of chatbots

Chatbots are utilized in a variety of settings of commercial use, such as: online customer service, e-commerce purchase procedures, online reservations, consumer feedback marketing. In all these contexts, by using chatbots, companies can have additional sales force<sup>12</sup>, and provide extensive and always-available customer assistance, while lowering the employment costs by deploying chatbots in online communication with the potential or actual consumer. Using chatbots, businesses may find help to enhance customer engagement and track consumer data from a marketing standpoint. In regulated areas, such as financial and healthcare services, chatbots are becoming increasingly

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<sup>7</sup> Theodore Nadelson, *The inhuman computer/the too-human psychotherapist*, "American Journal of Psychotherapy", available online at: <https://doi.org/10.1176/appi.psychotherapy.1987.41.4.489>, last accessed on 13.11.2021.

<sup>8</sup> Alan Mathison Turing, *op. cit.*, p. 433-460.

<sup>9</sup> Michal Stojanov, *Prospects for Chatbots*, "Izvestia Journal of the Union of Scientists – Varna, Economic Sciences Series", 2019, p. 10-16, available online at: <https://econpapers.repec.org/article/vrajournl/default1.htm>, last accessed on 13.11.2021.

<sup>10</sup> Jennifer Preece, Yvonne Rogers, Helen Sharp, *Interaction Design: beyond human-computer interaction*, John Wiley & Sons publishing house, New Jersey, 2019, p. 5.

<sup>11</sup> Sumit Raj, *Building Chatbots with Python*, Apress publishing house, New York, 2019, p. 63-73

<sup>12</sup> Bayan Abu Shawar, Eric Atwell, *op. cit.*, p. 29-49.

popular. Chatbots have been adopted by banks to conduct a variety of activities, including collecting basic customer information and monitoring account balances, as well as advising users on how to save money.

Public sector also may use chatbots and in fact this is particularly efficient, as public services are aimed to address a very large number of people, which whom simultaneous communication would be excessively costly.

Personal use of chatbots is also possible. People use messaging apps like WhatsApp and Facebook Messenger on a daily basis to communicate with friends, connect with businesses, make calls, absorb information, purchase goods, and even make restaurant reservations.

### 3. Legal challenges concerning the use of chatbots

Development brought by new technical realities stretches, in a way or another, the borders of the legal concepts that were designed under the previous coordinates of the reality. Chatbots have a dual characteristic that is moving the limits of the previous reality and poses legal challenges to the existing legal concepts. We shall address a number of them, without claiming to find the absolute answer to the best approach needed for either of them. We do consider, however, that listing them is beneficial for the legal thinking as, in time, the most legal minds will focus on this topic, the faster the industry will be provided with specific legal coordinates to consider when designing and using chatbots.

#### 3.1. Taxonomy

The first legal challenge in the use of chatbots is their very definition. Taxonomy in the digital era is a key concern. Various international organizations are in process of trying to prepare a list of definitions of relevant terms in the digital context, such as: EU, OECD, UNCITRAL, etc.

While the industry has defined in practice the chatbots by simply referring to it, from legal standpoint, defining a chatbot is not easily found as legislation has not included it yet. From the different perspectives of developers, users, right holders, consumers, and other users of the chatbot ecosystem, this may be considered a computer software, a database, a mean of communication or a service.

Traditionally, in the references used in the industry, there is not necessarily an overlap between the notion of chatbot and a conversational AI<sup>13</sup>. However, in the terminology used in the public communication of the European Parliament chatbots are considered a use case of AI, "(a) specific use case of AI is a "Virtual Assistant" or "Intelligent Personal Assistant", which is a software agent that can perform tasks or services. Often the term "Chatbot" is used, especially when the services of the Virtual Assistant are accessed by online chat."<sup>14</sup>

According to the JRC Technical Report of the European Commission, a robot is an "actuated mechanism programmable in two or more axes with a degree of autonomy (i.e., the ability to perform intended tasks based on current state and sensing, without human intervention), moving within its environment, to perform intended tasks."<sup>15</sup>, and from this perspective a chatbot would qualify as a robot if the definition is construed in a broad sense, namely with two conditions (a) that a software to be considered a mechanism and (b) that "moving within the environment" may be considered as including the conversational function of the software robot.

Such interpretation would be considered compatible with the view of OECD who includes in the Artificial Intelligence & Responsible Business Conduct report, the following explanation:

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<sup>13</sup> The Hyro team, *What's the Difference Between Chatbots and Conversational AI?*, 2021, available online at: <https://www.hyro.ai/post/whats-the-difference-between-chatbots-and-conversational-ai>, last accessed on 13.11.2021.

<sup>14</sup> *Chatbots and AI*, available online at: [https://www.europarl.europa.eu/RegData/publications/divers/2019/010619/EP-PE\\_DV\(2019\)010619\(ANN02\)XL.pdf](https://www.europarl.europa.eu/RegData/publications/divers/2019/010619/EP-PE_DV(2019)010619(ANN02)XL.pdf), last accessed on 13.11.2021.

<sup>15</sup> European Commission, *JRC Technical Report - Automation and Robots in Services: Review of Data and Taxonomy (No. 14)*, 2020/14, p. 7, available online at: <https://ec.europa.eu/jrc/sites/default/files/jrc121893.pdf>, last accessed on 13.11.2021.

"Conversation and human interaction use cases involve machines and humans interacting with each other through conversational content across a variety of methods including voice, text, and image forms. For example, applications such as Wysa, Joyable and Talkspace use chatbots to provide users with automated mental health care and conduct mood and intent analysis. Other examples include digital assistants such as Siri and Alexa."<sup>16</sup>

### 3.2. Intellectual property rights

From the perspective of the intellectual property rights, definition of the chatbot as a software or a database may be very relevant. This is not only a factual assessment, but also a legal matter, as it may turn out that the context of the existing definitions is not specific enough to allow the accurate protection of the intellectual input as an intellectual property right.

For example, a contemporary chatbot that feigns to pass Turing's test is made up of a few key elements:

(i) a chatbot's decision tree, also known as a logical conversational sequence, or questions and possible answers tree – in this section, a chatbot's creator develops possible questions and answers provided by the machine, as well as connects to other databases, outside sources, writes down search queries, and models logical way of chatting;

(ii) intents, entities, patterns, and so on – elements that help a machine navigate;

(iii) the operational software;

(iv) other components, such as voice and video recognition.

As a result, the decision tree is a component that is accessible to chatbot users and can be simply duplicated by them.

Intents, entities, and patterns are not visible to chatbot users; typically, dynamic material is used, although it may potentially be re-engineered.

Operational software, machine learning components, data storage, and a user-friendly interface are often components of conversational computing platforms and are therefore less crucial to the chatbot creator.<sup>17</sup>

The development of decision trees, which includes required dynamic aspects such as intentions, entities, and patterns, necessitates skills, knowledge, and time, and may be classified as a database at first look, and should be protected by sui generis database rights. However, the conditions of "significant investment" must be satisfied in order to identify chatbot decision trees as databases eligible for protection under sui generis rights.

By copyright law and sui generis protection, the EU Database Directive protects database author rights. Only if the selection or arrangement of the database's contents is the authors' creative work would copyright protection be applied. The Directive's Preamble states that such protection would apply to the database's structure, but that it would be subject to the criterion of originality and that no aesthetic or qualitative criteria may be used. When the database creator does not have copyright protection, a sui generis protection may be possible, but only if the database inventor can demonstrate a significant commitment in collecting, validating, or presenting the information<sup>18</sup>.

As new technologies arise, the one-of-a-kind (sui generis) database protection may become relevant. The European Commission issued a second assessment of the Database Directive on April 25, 2018. Sui generis rights were used by the ECJ and national courts to safeguard the illegal use of large data in online marketplaces.

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<sup>16</sup> OECD, *Artificial Intelligence & Responsible Business Conduct*, 2019, p. 2, available online at: <https://mneguidelines.oecd.org/RBC-and-artificial-intelligence.pdf>, last accessed on 13.11.2021.

<sup>17</sup> Teresa Castle-Green, Stuart Reeves, Joel E. Fischer, Boriana Koleva, *Decision Trees as Sociotechnical Objects in Chatbot Design*, "CUI '20: Proceedings of the 2nd Conference on Conversational User Interfaces", 2020, p. 1-3, available online at: <http://www.cs.nott.ac.uk/~pszsr/files/castle-green-2020-chatbot-decision-trees.pdf>, last accessed on 13.11.2021.

<sup>18</sup> Neil Robinson, Hans Graux, Maarten Botterman, Lorenzo Valeri, *Review of the European Data Protection Directive*, "RAND Europe Technical Report", available online at: [https://www.rand.org/pubs/technical\\_reports/TR710.html](https://www.rand.org/pubs/technical_reports/TR710.html), last accessed on 13.11.2021.

### 3.3. Civil liability - tort and contractual liability

It is obvious that, while chatbots provide several benefits to both developers and users, they also come with a variety of concerns. It is essential to anticipate these dangers and ensure that the created chatbot adheres to the relevant legal framework<sup>19</sup>.

Chatbots cannot be held accountable to customers since they are software programs with no legal personality. Instead, a natural person or a legal entity shall be liable. There are a number of approaches that may lead to defining the liable person in case of harm created by the chatbot:

(a) The person or corporation who has the legal possession i.e. who actually runs the chatbot and makes it available to customers could be held accountable for any financial losses incurred as a result of a breach of contract (with the existing clients) or tort (should a contractual relationship is not yet formed). A contract responsibility claim requires that the financial loss (with or without bodily harm) was caused by the chatbot operator's breach of a contractual commitment, and that the chatbot operator acted with malice or negligence. Although the individual contract in question must be analyzed, providing incorrect or false information through a chatbot is almost always a breach of contract. For example, the chatbot operator would be negligent if it failed to adequately test the chatbot, repair known or apparent flaws, or ensure continuing checks on the chatbot's perfect operation. Alternatively, if the chatbot operator and the consumer do not have a contract, the chatbot operator may be held accountable under tort law. A tort responsibility for pure financial losses without any bodily harm requires that the chatbot operator has broken a written or unwritten regulation intended to protect the customer's financial assets.<sup>20</sup> Also, if a chatbot responds to a person in an abusive or insulting manner, the personality rights may be violated, and the consumer may file a claim for damages and satisfaction against the chatbot operator.

(b) The legal owner of the chatbot may have, under certain legislations, a separate liability for the chatbot, should his lack of proper measures for the chatbot not to interact absent human will to initiate such action. Such liability will fall within the domain of tort, being a case of liability of the legal owner for the actions of the goods in their ownership.

(c) The chatbot's manufacturer may be held accountable under the product liability legislation if the harm was caused by a flaw in the chatbot software.<sup>21</sup>

### 3.4. Consumer protection

Consumer protection legislation may enter into action, in various hypothesis of the use of chatbots.

Firstly, the mere question whether a consumer should be informed or not that the interaction takes place with a chatbot and not a human being is an open question.

Secondly, if a chatbot gives incorrect information or advice to a consumer and the customer makes a poor decision and suffer financial loss or even bodily harm may result as a result of such information, this may be considered as falling under consumer protection provisions.

### 3.5. Regulated professions

Doctors, lawyers, notaries, and other regulated professions choose to use chatbots in order to reach to their clients easier and faster, helping them with smaller issues and then redirecting them to a human expert.

Nowadays, more and more legal firms choose to implement chatbots, in order to answer to clients online, on social media. A chatbot or a chatbot attorney operator who is not a lawyer must

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<sup>19</sup> Natalie Dreyfus, *Beware of the legal risks surrounding the rise of chatbots*, 2017, available online at: <https://www.expertguides.com/articles/beware-of-the-legal-risks-surrounding-the-rise-of-chatbots/ARTWUSIC#>, last accessed on 13.11.2021.

<sup>20</sup> Andrea Trost, Nicola Benz, *Chatbots – Key Legal Issues*, 2020, available online at: <https://www.mll-news.com/chatbots-key-legal-issues/?lang=en>, last accessed on 13.11.2021.

<sup>21</sup> Trost & Benz, *ibidem*.

keep their conversations to the point. They are unable to give legal advice, interpretations, or recommendations. Legal advice can only be given by a lawyer. In general, they may respond to queries that require factual facts rather than opinions or advice.

The expectations of the clients of the legal practice will be correctly aligned if the parameters of the chat dialogue are established from the start. The user should be aware that if they wish to continue the conversation with an attorney, they must take the next step, such as booking an appointment, filling out an intake form, or signing an engagement agreement.

An efficient solution would be that at the outset of the discussion, an automatic disclaimer which would state that no legal advice will be offered and that no attorney-client relationship should be set up. This might include a statement about how the conversation should be kept private or how legal counsel should only be sought after an attorney has been retained to provide full and due attention to all relevant material pertaining to the specific issue.

### **3.6. Cybersecurity and compliance with secrecy regulations**

Cybersecurity issues are important not only from the perspective of privacy and data protection, but also from the perspective of intellectual property rights, the tax confidentiality, the financial sector specific confidentiality, the trade secrets, the confidentiality obligations etc. To these, protection of classified information and sensitive data from the national security perspective is to be added.

The more information a chatbot acquires, the more likely it is to be hacked. Attacks or leaks could target documents linked to conversations, the application, or the database itself. Cyber thieves may seek to steal this information and use it for their own gain, or they may wish to prevent access to it and demand payment<sup>22</sup>.

When deployed in a regulated industry, chatbots must be configured to adhere to the applicable regulatory framework. When a chatbot acquires information from a bank customer, for example, it must guarantee that the chatbot follows banking secrecy regulations.

### **3.7. Privacy and data protection**

Chatbots are frequently trained using data that already exists. The data used will influence the chatbot's responses, and where data sets are incomplete, blind spots, bias, and inadvertent bias may occur.

Furthermore, questions must be asked about what data is acquired from chatbot users, how that data is stored, where it is used, and how it is linked to other data. Client-use behavior, raw chat data, and metadata can all be tracked and linked to other online behavioral data. It is critical that the user understands how the data will be used before using it, and that the terms and conditions are followed, not only to prevent legal liability, but also to ensure the user's trust.

It must also be considered what data will be gathered and how it will be utilized at all times, as well as how long and where the data will be stored. Also, what other data it may be linked to or shared with shall be taken into consideration. These are the kinds of questions that need to be answered before a chatbot is deployed or used.

There are not only legal concerns, as many jurisdictions' privacy and data protection laws establish severe constraints on what data can be gathered, particularly sensitive personal data, how it is maintained, and what uses it can be put to, but also ethical concerns about fundamental rights to privacy

In European Union Law, there is a contrast between "privacy" and "data protection" which defines these two notions as closely connected and often overlapping, but not synonymous.

Data protection refers to constraints or requirements on the processing of data belonging to an identified individual, whereas privacy refers to the preservation of an individual's "personal space."

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<sup>22</sup> Bayan Abu Shawar, Eric Atwell, *op. cit.*, p. 29-49.

However, legal scholars point out that data protection and privacy interact in a way that makes data protection both broader and narrower than privacy. It is limited because it solely concerns the processing of personal data, whereas privacy concerns a broader range of issues. However, it is broader because it covers the processing of personal data, even if it does not infringe on privacy<sup>23</sup>.

The Regulation 679/2016 of April 27, 2016, on the security of natural persons with regard to the processing of personal data and on the free movement of such data strengthens and harmonizes the rules for safeguarding individuals' privacy rights and freedoms both inside and outside the territory of the European Union. General Data Protection Regulation is a recent legislative milestone that establishes general principles that apply to all types of personal data processing<sup>24</sup>.

It is important that the chatbot is trained to ask for consent before processing the personal data of the interlocutor<sup>25</sup>.

### 3.8. Other problematic human rights issues

A number of legally problematic issues may arise in connection with human rights protection, for certain uses cases of chatbots.

**(a) The right to identity.** The story of identity is told by each individual's thoughts through memories and expectations. Every individual has a right to identity, so they should be able to tell this story themselves during their lifetime.

In 2017, Microsoft trademarked a chatbot that might be used to digitally resuscitate the dead if developed. The suggested chatbot would use AI and machine learning to resurrect our digital avatar for our family and friends to converse with.

Given the fact that there are currently no laws governing digital reincarnation, people cannot choose whether they want to be digitally reincarnated or not, or to protect their personal data. National laws differ on how your data is utilized after you pass away. The data privacy regulation in the EU exclusively protects the rights of the living. As a result, member nations are free to decide how to secure the data of the deceased.

Because there is no clarity in this matter, after a person passes away, Microsoft's chatbot will exploit the private electronic chats to construct a digital rebirth in the deceased's likeness. A chatbot like this would utilize machine learning to reply to text messages in the same way that the subject would if it was still alive<sup>26</sup>. With regards to this technology, there is no clarity whether there is a breach of the identity right, due to the lack of after-death legislation.

**(b) Equality of rights.** Discrimination based on gender, race, age or other may be an inherent issue of the AI based systems, as a result intentional bias of insufficient attention in programming.

If the chatbot is not programmed in accordance with the current ethical norms, it can lead to a breach in the equality of rights by adding in the discussion inappropriate comments which can trigger discrimination issues.

From the wealth discrimination point of view, AI in general has the potential to significantly benefit underserved people by facilitating equal access to public services such as health, education, social assistance, and public transport. On the other hand, it has the potential to cause significant inequality by concentrating money, resources, and decision-making power in the hands of a few countries, companies, or citizens.

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<sup>23</sup> Eugenia Politou, Efthimios Alepis, Constantinos Patsakis, *Forgetting personal data and revoking consent under the GDPR: Challenges and proposed solutions*, "Journal of Cybersecurity", 2018, p. 2-3, available online at: <https://academic.oup.com/cybersecurity/article/4/1/tyy001/4954056>, last accessed on 13.11.2021.

<sup>24</sup> European Parliament and the Council of the European Union, *Regulation on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation)*, 2016/679, 2016, available online at: <https://eur-lex.europa.eu/eli/reg/2016/679/oj>, last accessed on 13.11.2021.

<sup>25</sup> Rahime Belen Saglam, Jason R. C. Nurse, *Is your chatbot GDPR compliant? Open issues in agent design*, "International Conference on Conversational User Interfaces (CUI) Proceedings", 2020, p. 1-3, available online at: <https://arxiv.org/abs/2005.12644>, last accessed on 13.11.2021.

<sup>26</sup> Edina Harbinja, Lilian Edwards, Marisa McVey, *Chatbots that resurrect the dead: legal experts weigh in on 'disturbing' technology*, 2021, available online at: <https://theconversation.com/chatbots-that-resurrect-the-dead-legal-experts-weigh-in-on-disturbing-technology-155436>, last accessed on 13.11.2021.

(c) *Child protection.* Children may not be aware that dialogue takes place between them and a chatbot and not a human being, even if the chatbot would make such specific reference, due to the children's lack of ability to fully understand the terminology and the difference. Such situation raises issues of child protection in case that chatbots are used for certain communication where children may be victims of fake news, or even virtual abuse.

At a young age, kids are not able to filter the information they receive from the internet or from social media platforms and take it as it is. They later spread it in their friend group, which may cause mass disinformation and bring chatbots in the attention to more and more children. According to UNICEF, the main issues with child protection are about identity protection, harmful content, location detection and biological safety, such as genetic manipulation and emotional ramifications.<sup>27</sup>

#### 4. Proposed relevant legislation at the level of EU

On 21<sup>st</sup> of April 2021, the European Commission issued a Proposal for a regulation of the European Parliament and of the council laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain union legislative acts - COM/2021/206 („the EC Proposal”)<sup>28</sup>.

This document follows the 19 February 2020 publication of the European Commission White Paper on AI - A European approach to excellence and trust<sup>29</sup>.

Other institutions of the European Union also addressed relevant issues for the use of AI, with potential application also on the chatbots.

Conclusions of the Presidency of the European Council from 21 October 2020 called for addressing the opacity, complexity, bias, a certain degree of unpredictability and partially autonomous behaviour of certain AI systems, to ensure their compatibility with fundamental rights and to facilitate the enforcement of legal rules<sup>30</sup>.

The European Parliament adopted in October 2020, it adopted a number of resolutions related to AI, including on ethics<sup>31</sup>, liability<sup>32</sup> and copyright<sup>33</sup> and in 2021 other resolutions concerning the use of AI in criminal matters<sup>34</sup> and in education, culture and the audio-visual sector<sup>35</sup>. The European Parliament Resolution on a Framework of Ethical Aspects of Artificial Intelligence,

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<sup>27</sup> UNICEF & World Economic Forum, *Children and AI, where are the opportunities and risks?*, 2018, available online at: [https://www.unicef.org/innovation/sites/unicef.org/innovation/files/2018-.11/Children%20and%20AI\\_Short%20Version%20%283%29.pdf](https://www.unicef.org/innovation/sites/unicef.org/innovation/files/2018-.11/Children%20and%20AI_Short%20Version%20%283%29.pdf), last accessed on 13.11.2021

<sup>28</sup> European Parliament and the Council of the European Union, *Proposal for a regulation laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain union legislative acts*, COM/2021/206, 2021, available online at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0206>, last accessed on 13.11.2021.

<sup>29</sup> European Commission, *White Paper on Artificial Intelligence - A European approach to excellence and trust*, COM(2020) 65 final, 2020, available online at: [https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020\\_en.pdf](https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf), last accessed on 13.11.2021.

<sup>30</sup> Council of the European Union, *Presidency conclusions - The Charter of Fundamental Rights in the context of Artificial Intelligence and Digital Change*, 11481/20, 2020, available online at: <https://www.consilium.europa.eu/media/46496/st11481-en20.pdf>, last accessed on 13.11.2021.

<sup>31</sup> European Parliament, *Resolution of 20 October 2020 on a framework of ethical aspects of artificial intelligence, robotics and related technologies*, 2020/2012(INL), 2020, available online at: [https://www.europarl.europa.eu/doceo/document/TA-9-2020-0275\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2020-0275_EN.html), last accessed on 13.11.2021.

<sup>32</sup> European Parliament, *Resolution of 20 October 2020 on a civil liability regime for artificial intelligence*, 2020/2014(INL), 2020, available online at: [https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276_EN.html), last accessed on 13.11.2021

<sup>33</sup> European Parliament, *Resolution of 20 October 2020 on intellectual property rights for the development of artificial intelligence technologies*, 2020/2015(INI), 2020, available online at: [https://www.europarl.europa.eu/doceo/document/A-9-2020-0176\\_EN.html](https://www.europarl.europa.eu/doceo/document/A-9-2020-0176_EN.html), last accessed on 13.11.2021.

<sup>34</sup> European Parliament, Draft Report, *Artificial intelligence in criminal law and its use by the police and judicial authorities in criminal matters*, 2020/2016(INI), 2020, available online at: [https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&reference=2020/2016\(INI\)](https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&reference=2020/2016(INI)), last accessed on 13.11.2021.

<sup>35</sup> European Parliament, Draft Report, *Artificial intelligence in education, culture and the audiovisual sector*, 2020/2017(INI), 2020 available online at: [https://www.europarl.europa.eu/doceo/document/TA-9-2021-0238\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2021-0238_EN.html), last accessed on 13.11.2021. In that regard, the Commission has adopted the Digital Education Action Plan 2021-2027: Resetting education and training for the digital age, which foresees the development of ethical guidelines in AI and Data usage in education – Commission Communication COM(2020) 624 final, available online at: [https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan\\_en](https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en), last accessed on 13.11.2021.

Robotics and Related Technologies recommends legislative actions to ensure protection of ethical principles and included a text of the legislative proposal for a regulation on ethical principles for the development, deployment and use of AI, robotics and related technologies.

As mentioned in the explanatory memorandum accompanying the EC Proposal for a Regulation laying down harmonised rules on artificial intelligence, mention is made that the EC Proposal is drafted with due consideration for the above mentioned resolutions of the European Parliament

Specific mention is made that consistency is also ensured with the EU Charter of Fundamental Rights and the existing secondary Union legislation on data protection, consumer protection, non-discrimination and gender equality.

The EC Proposal includes a number of provisions that may be applicable in the case of chatbots using AI. However, the EC Proposal makes only one specific reference to chatbots, when mentioning that “for some specific AI systems, only minimum transparency obligations are proposed, in particular when chatbots or ‘deep fakes’ are used.”

The main ideas included in the EC Proposal that would potentially concern chatbots include transparency obligations, interdictions to place on the market or putting into service certain AI systems if intended to distort human behaviour, whereby physical or psychological harms are likely to occur and non discrimination.

#### **4.1. Transparency obligations**

As per Title IV of the EC Proposal, transparency obligations will apply for systems that (i) interact with humans, (ii) are used to detect emotions or determine association with (social) categories based on biometric data, or (iii) generate or manipulate content (‘deep fakes’). When persons interact with an AI system or their emotions or characteristics are recognised through automated means, people must be informed of that circumstance.

If an AI system is used to generate or manipulate image, audio or video content that appreciably resembles authentic content, there should be an obligation to disclose that the content is generated through automated means, subject to exceptions for legitimate purposes (law enforcement, freedom of expression). According with the EC Proposal, “this allows persons to make informed choices or step back from a given situation.”

#### **4.2. Interdictions to place on the market or putting into service or use of certain AI systems**

The EC Proposal anticipates that, if intended to distort human behaviour, whereby physical or psychological harms are likely to occur, certain AI systems shall face an interdiction to place on the market or putting into service. “Such AI systems deploy subliminal components individuals cannot perceive or exploit vulnerabilities of children and people due to their age, physical or mental incapacities. They do so with the intention to materially distort the behaviour of a person and in a manner that causes or is likely to cause harm to that or another person. The intention may not be presumed if the distortion of human behaviour results from factors external to the AI system which are outside of the control of the provider or the user.”

However, the EC proposal includes a nuance, in stating that research for legitimate purposes in relation to such AI systems should not be stifled by the prohibition, if such research does not amount to use of the AI system in human-machine relations that exposes natural persons to harm and such research is carried out in accordance with recognised ethical standards for scientific research.

#### **4.3. Nondiscrimination**

In order to ensure that the high-risk AI system functions safely as intended and does not become a source of discrimination banned by Union legislation, excellent data quality is required for

the performance of many AI systems, especially when approaches involving model training are used. Thus, the EC Proposals notes that “high quality training, validation and testing data sets require the implementation of appropriate data governance and management practices.”

According to the EC Proposal, in light of the system's intended purpose, training, validation, and testing data sets should be sufficiently relevant, representative, error-free, and complete. They should also have the necessary statistical qualities, such as those pertaining to the individuals or groups of individuals for whom the high-risk AI system is meant to be utilized. In particular, training, validation, and testing data sets should consider, to the extent necessary in light of their intended purpose, the features, characteristics, or elements unique to the specific geographical, behavioral, or functional setting or context in which the AI system is intended to be used.

The EC Proposal notes that, in order to protect the right of others from the discrimination that might result from the bias in AI systems, the providers should be able to process also special categories of personal data, as a matter of substantial public interest, in order to ensure the bias monitoring, detection and correction in relation to high-risk AI systems.

## 5. Conclusion

In conclusion, the employment of chatbots has several advantages and is largely welcomed by clients. However, in order to put them into practice, a slew of legal restrictions must be considered. Current liability and consumer law laws, in example, are only to a certain extent compatible with automated customer care or contracting "per chat".

In addition, legal departments are always seeking for methods to increase their efficiency, productivity, customer reach, and engagement. Technology tools will undoubtedly play a part in this endeavor, both in terms of social benefits and financial prospects. What makes chatbots so essential is their capacity to reach out to a larger audience more quickly than human professionals. The goal is to see this technology not as a threat to human experts, but as a means of collaborating with them to reach more people in less time.

From legal standpoint, companies should however be wary of a chatbot's potentially harmful, abusive, and erroneous replies, resulting in their liability under different legal perspectives. Such legal perspectives include taxonomy, intellectual property rights, civil liability, consumer protection, cybersecurity and compliance with secrecy regulations, privacy and data protection, and other problematic human rights issues.

From economic standpoint, companies should also take into account the impact a chatbot may have on a company's image and profile. Several notable chatbot failures have resulted in humiliation for businesses and brands by providing unsuitable responses. Companies should also foresee and install a form of intelligent censorship mechanism to avoid such an outcome. Furthermore, chatbot must be tested and approved prior to their deployment, through random interactions that expose it to various scenario. There is also a risk that chatbots with inaccurate or inadequate training data, or those with public access, would misbehave and respond in their verbal interactions in an aggressive manner. In addition to the issue of liability, such misbehaving chatbot can have a detrimental impact on the company's image and reputation. Companies should include these risks in their risk and crisis management plans so that they can respond swiftly to any public complaints about their interactions with the chatbot.

Recent documents of legal policy of the European Union address broadly the artificial intelligence, such as the Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on Artificial Intelligence (AI) and amending certain Union legislative acts. This EU Proposal, although aimed to address AI in general, has a number of provisions also relevant for chatbots, as conversational AI.

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