INTELLECTUAL PROPERTY LAW IN TIMES OF ARTIFICIAL INTELLIGENCE: IS IT A MISNOMER TO CONSIDER THE BOT A POSSIBLE IP RIGHT HOLDER?

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Thinking of Artificial intelligence, a non-tech savvy person may start imagining scenes of those Sci-Fi movies where 'bots' are so capable that they become a threat to human existence and start taking over the world through their highly advanced intelligence that surpasses human intelligence. However, in reality we are not close to such an AI yet.

In the words of John Mc Karthy, the one who coined the term 'Artificial Intelligence' in 1956, AI is "the science and engineering of making intelligent machines". Still the question arises what exactly does one mean by the term 'intelligence' in the context of machines. Mc Karthy explains Intelligence as a computational part of the ability to achieve goals in the world. Varying kinds and degrees of intelligence occur in people, many animals and some machines.[1] We don't have a concrete definition of this term which doesn't depend on relating it to human intelligence, simply because we can not yet characterize in general what kinds of computational procedures we want to call intelligent. As for human intelligence, we understand only some of its mechanisms and not all. This vagueness is attributed to the fact that cognitive sciences have not developed to the extent that exact human abilities could be determined.

According to the recent definitions, AI could be defined as a program that processes information in such a manner that the result corresponds with an intelligent person's response to the similar input. A true AI may be recognized as possessing characteristics such as comprehending refined language, resolving new problems, learning through trial and error

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[1] John Mc Karthy, Basic Questions, Stanford University, http://www-formal.stanford.edu/jmc, retrieved on 30 sep 2016 at 6:00 pm

method. Such an AI has just started becoming a real phenomenon which has given rise to legal complexities regarding the proprietary of these machines and their creations. However, not all programs termed as AI possess such qualities. Scientists divide AIs into two broad categories- Artificial Narrow Intelligence (weak AI) and Artificial General Intelligence (strong AI). Weak AI is programmed extensively to merely mimic human intelligence, performing a narrow function. A well-known example is Siri. It works algorithmically in a limited spectrum. There's no consciousness or conscience involved. In these type of AIs, the programmer is in direct control of every output that may be generated. Clearly, such outputs cannot be assigned copyrights, beyond doubt, simply because these outputs fail to fulfill the legal criteria i.e. 'modicum of creativity' and 'original work of authorship' to acquire a copyright, or any other Intellectual Property right for that matter.

IBM's supercomputer Watson, a highly specialized and advanced ANI program in 2015 whipped up a cook-book called 'Cognitive cooking with Chef Watson', under the supervision of IBM cognitive team and chefs from the Institute of Culinary Education, New York. For three continuous years, the team fed it a plethora of data from cook books, academic studies, tweets, food theories. They trained the machine that doesn't possess any gustatory sensation to churn out innovative recipes that humans would like! When the question for imputing authorship rights came into picture Watson was excluded, which was fair by all means. All Watson did was process the data fed to it by using its cutting edge Neuro-linguistic Programming to recommend unique combinations of ingredients. This is precisely what is was programmed to do. The ingredient combinations may be original but there was lack of creativity on Watson's part. Also, copyright law doesn't protect wholly mechanically or randomly generated works. It was the cognitive team and the chefs that later on framed these recommendations into well-written recipes. Watson was merely being used as a tool for creation by human authors. This justifies them being the copyright holders of the book. However things become a bit more complicated when one talks about Artificial General Intelligence.

Artificial General Intelligence is inspired by the working of neural networks of brain. This system involves innovative thinking and logical reasoning abilities. These systems show adaptively that can alter structure in response to stimuli or input received. A freshly programmed AGI is like a curious new born baby. This baby goes out in the world, learns through experience, acquires skills

and develops a sense of individuality as it grows. AGI is what one could term as a true AI. One of the closest example to an AGI is the latest version of "creativity machine" (first built in 1994 by Stephen Thaler) that is being used by US military to design new weapons. This machine is self-trained and requires negligible human intervention apart from the initial engineering to "create" outputs. In such a situation the question remains open as to whom, if anyone, IPRs should be assigned.

In present scenario where advancement in AI technology is increasing at an exponential rate, the concept of machine authorship seems plausible. Yet laws regulating creative innovation do not consider non-human innovation worth protecting. Purpose of copyright is to "promote the progress of science and the useful arts"[2] and to protect the unacknowledged reproduction and propagation of these works. Motivation behind the law is to incentivize more creative work than it inhibits by locking down creative capital[3]. Current AGIs are far from gaining self-awareness, let alone conscience. These machines don't have a purpose or aim of any sort for creating novel works. They don't consider incentives per se. As far as current technology is concerned, only humans can make these creative selections. Law wouldn't care about how developed a machine is technologically or what it can do, till there's a need felt by the society to recognize AI as a separate legal person. Until some greater good is involved, IPRs can't be provided to a machine just because it fulfills the legal technicalities for the same. Doing so would unnecessarily hinder it from public access. The greater purpose of law is the welfare of society.

In this tech era, where innovation is happening at an exponential rate, futurists such as Ray Kurzwell predict a span as less as 30-40 years from now, when there would be self-aware bots walking amongst us, we could only fathom in how many ways our society would or could change! In the wake of such theories which may prove themselves in the years to come, legal questions regarding authorship are bound to become more and more complex which couldn't be answered according to the current Intellectual Property Right Laws.

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[2] U.S. Constitution, art. 1, sec. 8, cl. 8
[3] Dennis S. Karjala, Copyright and Creativity, 15 UCLA Ent. L. Rev. 169,172 73(2008)