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Artificially Intelligent

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Artificial intelligence and biotechnology are both booming fields and have an unsigned potential for immense growth. Both aim to discover the solutions to the problems occurring throughout the walks of lifestyle that humanity stumbles upon. So, when both of these are combined to achieve a goal, the results are sure to be surprising. This partnership of biology and machines has already been started, and now being used in various sectors as well. These industries will not only propel in their respective affairs but are bound to contribute about trillions of dollars to the global economy, which is why it has eyes of the world on it.

Keywords

- Biotechnology
- Artificially Intelligent
- Artificial Intelligence
- Machine learning

ARTICLE HISTORY

Paper Nomenclature:

Argument Based Credentials (ABC)

Paper Code: CYBNMV2N2FEB2020ABC1

Submission Online: 06-Feb -2020

Manuscript Acknowledged: 07-Feb-2020

Originality Check: 13-Feb-2020

Originality Test Ratio: 0%

Peer Reviewers Comment: 14-Feb-2020

Blind Reviewers Remarks: 16-Feb-2020

Author Revert: 19-Feb-2020

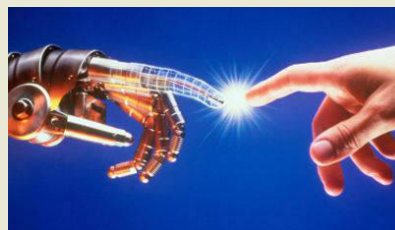
Camera-Ready-Copy: 22-Feb-2020

Editorial Board Citation: 29-Feb-2020

Published Online First: 13-May-2020

Introduction

Artificial intelligence and machine learning are two closely related terms that focus on intelligence-the most valued asset of humans. AI and ML serve as a connecting platform between technology and the environment to produce smooth, unadulterated and smart responses. They serve as an instance of the human mind, but without human error. Though some loopholes can be generated, but they are also being worked upon. A simple example of face recognition feature that today almost every phone has is a benefaction of AI and ML as well. Now, efforts being made around the globe to incorporate this intelligence for the benefit of human health and drug discovery.



A part of the biotechnology and pharmaceutical industry is to deal with the study of molecules of various types and then deciphering the techniques to deal and manipulate them. Their pattern and approach of discoveries are very target-specific, due to the critical molecular level they deal with, which can be helped using artificial intelligence.

Artificial intelligence largely contributes to pre-processing/manufacturing steps of drug discovery. This means that target matching is an important area that AI crucially helps in. Different approaches are put forth depending on the kind of results we are aiming

for. ML helps in molecule identification and matching depending upon the structure, composition or any such specificity that we incur in our artificial agent (a term referred to any machine or system that has been developed using artificial intelligence), to gain specific results.



Several companies like IBM, which came up with IBM Watson genomics already uses AI and machine learning for cancer diagnostics. It is also applied in pathology, detection of rare disease and heart diseases. AI ensures precision and fastens the processes

by reducing their planning time like in radiology and radiotherapy.

In present times, various people have several kinds of specific health complications that might not be common in other patients, like some kind of allergy or any other disease. This means that the individual cannot be treated with the same processes or medication that the other patients were treated to, or some kinds of improvisations are required in the general approach of treatment. AI can help us with streamlined detections and personalized medications. On similar lines, applications are being developed to maintain patients' medication and their timely consummation through the setup of alarms and a medicine name pop-up which can help people with chronic diseases and old patients especially. Some of such apps are – Medisafe, Pillpack, Med Minder, etc.

AI is also driving the processes of gene editing, i.e. developing gene designing constructs that work through AI and does all the work, right from the selection of RNA to data analysis.



Another giant global health issue is organ donation and it's matching. Finding a willing donor and that too a compatible one, or waiting for a deceased viable donor can take a long time, sometimes more than the time they are left with. All this hustle can be avoided with the aid of AI. Instead of the conventional one-to-one system,

AI can facilitate the matching of donors and recipients in a matter of seconds. This way a large number of lives can be saved and many healthy organs can be judiciously utilized, which are otherwise discarded even without a look. All it requires is a platform to connect all the recipients, willing donors with AI.

This is just the start, artificial intelligence with biotechnology and pharmaceutical industry is on a roll which is destined to impress us in the near future itself. We all can find our little role in this association, thus benefiting both us and the society in the way. All in all, new technologies, discoveries, and methods are being devised by scientists currently, to simplify and comfort our lives.

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Arushi Verma a student, currently pursuing B.tech in Biotechnology (Amity University). I believe that cybernetics and internet is like a ball of strings which acts like a mediator, and connects several disciplines of our society. As a result, we can all relate to each other better and help different people through our own knowledge.

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Annexure I

Table with 4 columns: Submission Date (13-Feb-2020), Submission Id (D63851984 (Urkund)), Word Count (768), Character Count (7810)

Urkund Analysis Result box containing document details: AI and biotechnology.docx (D63851984), Submitted: 2/13/2020 3:17:00 PM, Submitted By: editorial.scholastic.seed@gmail.com, Significance: 0 %

Note: The Cybernomics had used the urkund plagiarism [http://www.orkund.com] tool to check the originality.



Reviewers Comment

- Review 1: That type of A.I., the kind that we see in wonderful stories depicted on telly through the adores of HBO’s powerful and touching series.
Review 2: The truth is that, whether or not true A.I. is out there or is actually a threat to our existence, there’s no stopping its development and its rise.
Review 3: The most significant difference between these forms of reasoning is that in the deductive case the truth of the premises guarantees the truth of the conclusion.



Editorial Excerpt

The article has 0% of plagiarism which is accepted percentage for publication the finding related to this manuscript Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.

Acknowledgement

Author is highly indebted to Scholastic Seed Inc & editorial team of Cybernomics, For making the write-up in the shape of an article.

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Citation box: Arushi Verma 'Artificially Intelligent' Volume-2, Issue-2, Feb 2020. (www.cybernomics.in)

Frequency: Monthly, Published: 2020
Conflict of Interest: Author of a Paper had no conflict neither financially nor academically.

