

Speedy advances and development in Big Data & AI are viably changing the life science space: Swetabh Pathak

20 May 2019 | Interviews | By Swetabh Pathak

Elucidata is a data science organization concentrated on developing tools and software solutions for drug discovery. Swetabh Pathak, Co-founder/CEO, Elucidata talks about how technology is transforming the healthcare sector in India



1) What is Elucidata? What services/products do we provide?

Elucidata is a data science organization concentrated on developing tools and software solutions for drug discovery. It was established in 2015 with the order to change the manner in which biological data is utilized to drive choices in R&D labs in both scholarly community and industry. Elucidata's long haul objective is to use its data analytics to coordinate distinctive sorts of - omics data so as to comprehend cell phenotypes and quicken the pace of drug discovery. Elucidata has workplaces in Cambridge, MA, and New Delhi, India.

Our products include:

Polly: Polly is a cloud-based, metabolomics data analytics platform, that can definitely change the end-examination. Polly without much of a stretch, can adjust to numerous data workflows and highlight a variety of uses that can process, break down, incorporate, and imagine biological data. It is a start to finish, seller unbiased, cloud-based platform that streamlines the data analysis workflows for - omics tests.

EI-MAVEN: It is an LC-MS data processing engine for large-scale metabolomic experiments. It allows automated processing of raw LC-MS data from unlabeled and labeled, targeted and untargeted metabolomic profiling experiments.

2) How is the current industry scenario for drug discovery and approval processes in India? What has been the challenges so far?

The scenario in India is still evolving. As a developing market, India is figuring out the best standards for itself. In India as well as the rest of the world, drug discovery process can take years of time and cost. The years- to decades-long process can be complex, and there is nearly always a moment of uncertainty that a drug will succeed to the next phase of development. This long development pipeline faces increasing costs and additional challenges, including insufficient knowledge regarding underlying mechanisms of disease, patient heterogeneity, lack of targets and biomarkers, a high rate of failed clinical trials, and regulatory challenges. Drug development is a lengthy, complex, and costly process, entrenched with a high degree of uncertainty that a drug will actually succeed. Following the path from discovery of a molecule through the road of development is complex and involves time, money and multiple disciplines to move it ahead.

3) What is the opportunity for Elucidata and likewise companies? What role does technology play here?

Speedy advances and development in Big Data and Artificial Intelligence (AI) are viably changing the life science space. Thanks to technology and various online healthcare platforms, there is a great deal of data driven by patient profiling, consistency, regulatory requirements, and consistent research. Data science is a revolution for companies like Elucidata. It is helping such companies to analyze data and making the drug discovery process more efficient. With data science comes the opportunity to analyze huge amounts of data in a short period of time and gain more insights from it.

Unlike data in the traditional systems which was mostly structured, today most of the data is unstructured or semi-structured. We need data science for processing, analyzing and drawing meaningful insights out of it.

4) Throw some light on the brands/companies that you are currently working with; any innovation specifically designed for India?

We are currently working with Pfizer, Arun, Yale School of Medicine, Labs at Princeton, UCLA etc. Unfortunately, we can't disclose further details because of confidentiality concerns. We think that India will play a key role in the global market. India can act as a global repository of data. Given our large population numbers it is possible to generate real patient data at a scale which is unparalleled.

5) What is your outlook, growth plans for the next 5 years?

We want to become the default SaaS partner for target discovery for global biopharma, biotech and academia. Our R&D team in India and the US will expand. As will the commercial team. In 5 years, we want to have a pan-global presence.

6) How is the Indian market vis a vis global scenario? What can we expect in the future?

India is a hub of vast of information; driven by patient profiling, administrative prerequisites and clinical research. In India, pharma companies are using huge amounts of information to support a wide scope of healthcare capacities, including clinical choice help, illness observation, and clinical investigation. Big data application can benefit and change a lot of things here. Big data can enable analysis of huge amounts of information in a shorter time and help derive actionable insights from them. Globally, especially in developed countries, research in the field of pharma is at more advanced stages. The use of big data in pharma is also widespread and they have adopted the technology faster. With pharma companies sitting on goldmines of data sets, we see a future where data science can be a strategic partner. It has the potential to completely transform the way we develop medicines.